TIM

2021
Annual Report

Dear Shareholders,

In terms of the health emergency, 2021 was another complex year. Nonetheless, for Italy and, in general, most of the global economy, it was a year of relaunching and restarting. In the last 12 months, Italy recorded GDP growth of 6.6%. Also in Brazil, the economic growth recorded in 2021 should come to slightly less than 5%.

In a scenario where both the intensity of the use of digital instruments and their widespread adoption remained at very high levels, the central nature of the entire sector and, specifically, our Group in the country's economic and social life continued to increase.

In 2021 our Group achieved several significant results: churn decreased in the fixed and mobile businesses; charges connected with bad debt decreased by 30%; customer satisfaction grew by 30% in the fixed business; the number of digital payments made by customers increased; revenues deriving from ICT and Cloud sales increased by over 20% and, lastly, all the ESG objectives were in line with the targets set.

Nonetheless, 2021 was a particularly difficult year for the entire sector, and the harsh competition that has marked the Italian telecommunications services market for some time now once again took the form of an additional generalized decrease in the prices of fixed and mobile network services. In general, at domestic level, the Group's EBITDA decreased, specifically due to several factors: the agreement with DAZN, which did not produce the expected revenue growth for the customer (ARPU) or concretely support the growth of acquisitions, and the reduction in costs which was not large enough to offset the trend in revenues.

In general, in a framework where the revenues deriving from the sales of services were lower than expected, this was offset by an investment plan which, instead, to handle the increased digital requirements of individuals and businesses, had to remain at high levels.

The misalignment triggered between revenues and investments, in addition to giving rise to the results achieved in 2021, highlights the differences between the services market, which has to handle harsh competition, and the infrastructure market, which requires long-term investments.

In addition, the series of provisions issued over the years on the equality of treatment have sharply impacted and decreased the benefits from vertical integration. Faced with the harsh restrictions and limitations deriving from those provisions, and an ever-increasing level of competition on the Italian telecommunications market meant that neither greater room to maneuver at the commercial level nor a greater stability or predictability of returns on investments required to develop and manage network structure materialized.

Starting with these considerations, the plan presented to the financial community on March 3, 2022 envisages the creation of separate business entities, one focused on the provision and sale of services to (business and residential) end customers and the other on more strictly infrastructural operations (network development and maintenance and provision of wholesale services to other operators). The plan defines a development model in line with the characteristics of each segment, to guarantee the utmost flexibility and specificity of the actions that will be implemented to best enhance the potential in terms of innovation, profitability and value creation, respectively.

Projects to monetize assets or network assets or activities, though on a smaller, more circumscribed scale, have intensified in the last few years, both in Italy (think of Inwit and, more recently FiberCop) and at European and international level, especially due to the interest shown by infrastructural funds. Some examples are the operation in France, with the SFR FTTH project (2018) or the one in Portugal, with Altice Portugal FTTH (2020) or also those in South America - Infraco in Chile (2021), FiBrasil in Brazil (2021), and Colombia FiberCo in Colombia (2021). The creation of entities fully dedicated to creating network infrastructure aims to improve market efficiency, making it more sound and sustainable, to benefit consumers and the entire sector.

The motivations and logic underlying the restructuring/reorganization project currently being analyzed (as well as our co-investment proposal recently judged compliant with European regulations by AGCOM), are, thus, not an isolated case, but, rather, part of a context that seems to be evolving in this direction.

Our new business plan also aims to strengthen and expand the public administration and large companies segment, further enhancing the values of our assets and our skills in creating specific, integrated commercial propositions with regard to the offer of Cloud, IoT and Cybersecurity services.

With regard to the opportunities provided by the financial resources made available by the Next Generation EU fund, the reorganization intending to result in two separate structures, each focused on its own business will enable us to provide the best contribution and be more competitive both regarding projects for the provision of digital services and the creation of infrastructural works. At the same time, we will also reap greater benefits from the incentives for adopting ICT technologies set out in the National Recovery and Resilience Plan (PNRR).

The feasibility and definition of the separation project set out in the plan will be finalized by the summer.

As regards the Brazilian operations, our competitive edge was heightened by enriching and increasing the value of our commercial offering, which led to a strengthening in terms of the increase in the customer base as well as in terms of average revenues per user. The latter, in particular, saw greater growth than that of our competitors. The approval by the Brazilian authorities of the operation through which TIM Brasil acquired a significant share of the assets of the OI group will result in an increase in the customer base, which, in turn, will enable us to increase our economies of scale and scope. Additional stimulus and growth will be provided by the launch of 5G and an additional increase in the value of the customer base through dedicated partnerships that involve the banking and entertainment sectors.

In almost a century of history, the TIM Group has been through several restructurings and, irrespective of the form that we will take following the restructuring operation being analyzed, it is certain that TIM will continue to constitute a wealth of technology, professionalism and infrastructure at the service of Italy's economic and social development.

Significant challenges are awaiting us in the near future. We are convinced that with the support of all our stakeholders, we will be able to handle them and transform them into concrete opportunities for development and growth.

Salvatore Rossi

Pietro Labriola

2021
Annual Report

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This document has been translated into English for the convenience of the readers. In the event of discrepancy, the Italian language version prevails.

BOARD OF DIRECTORS

Since January 21, 2022, the following have made up the TIM S.p.A. Board of Directors:

Chairman	Salvatore Rossi
Chief Executive Officer and General Manager	Pietro Labriola
Directors	Paolo Boccardelli (independent)
	Paola Bonomo (independent)
	Franck Cadoret
	Paola Camagni (independent)
	Maurizio Carli (independent)
	Luca De Meo (independent)
	Cristiana Falcone (independent)
	Federico Ferro Luzzi (independent)
	Giovanni Gorno Tempini
	Marella Moretti (independent)
	Ilaria Romagnoli (independent)
	Arnaud Roy de Puyfontaine
	Paola Sapienza (Lead Independent Director)
Secretary to the Board	Agostino Nuzzolo

BOARD OF STATUTORY AUDITORS

Chairman	Francesco Fallacara
Standing Auditors	Angelo Rocco Bonissoni
	Francesca di Donato
	Anna Doro
	Massimo Gambini
Alternate Auditors	Ilaria Antonella Belluco
	Laura Fiordelisi
	Franco Maurizio Lagro
	Paolo Prandi

Independent Auditors	EY S.p.A.

Report on Operations

2021

TIM Group

Revenues: **15,316** Millions of Euros

Key operating and financial data

EBITDA		EBITDA MARGIN		EBITDA ADJUSTED AFTER LEASE	
5,080	Millions of Euros	40.6%	organic excluding non recurrent	5,404	Millions of Euros

ADJUSTED NET FINANCIAL DEBT

22,187 Millions of Euros

ADJUSTED NET FINANCIAL DEBT - AFTER LEASE

17,573 Millions of Euros

CAPITAL EXPENDITURES

4,630 Millions of Euros

HEADCOUNT ITALY		HEADCOUNT OUTSIDE ITALY	
42,347	numbers	9,582	numbers

HEADCOUNT AT YEAR END

51.929 numbers

KEY OPERATING AND FINANCIAL DATA - TIM GROUP

Consolidated operating and financial data (*)

(million euros)		2021	2020	2019	2018	2017
Revenues		15,316	15,805	17,974	18,940	19,828
EBITDA	(1)	5,080	6,739	8,151	7,403	7,790
EBIT before goodwill impairment loss		591	2,104	3,175	3,151	3,291
Goodwill impairment loss		(4,120)	—	—	(2,590)	—
EBIT	(1)	(3,529)	2,104	3,175	561	3,291
Profit (loss) before tax from continuing operations		(4,515)	1,397	1,739	(777)	1,777
Profit (loss) from continuing operations		(8,400)	7,352	1,226	(1,152)	1,287
Profit (loss) from Discontinued operations/Non-current assets held for sale		—	—	16	—	—
Profit (loss) for the year		(8,400)	7,352	1,242	(1,152)	1,287
Profit (loss) for the year attributable to owners of the Parent		(8,652)	7,224	916	(1,411)	1,121
Capital Expenditures & spectrum		4,630	3,409	3,784	6,408	5,701

Consolidated financial position data(*)

(million euros)		12/31/2021	12/31/2020	12/31/2019	12/31/2018	12/31/2017
Total Assets		69,187	73,234	70,104	65,619	68,783
Total Equity		22,039	28,840	22,626	21,747	23,783
- attributable to owners of the Parent		17,414	26,215	20,280	19,528	21,557
- attributable to non-controlling interests		4,625	2,625	2,346	2,219	2,226
Total Liabilities		47,148	44,394	47,478	43,872	45,000
Total Equity and Liabilities		69,187	73,234	70,104	65,619	68,783
Share capital		11,614	11,588	11,587	11,587	11,587
Net financial debt carrying amount	(1)	22,416	23,714	28,246	25,995	26,091
Adjusted Net Financial Debt	(1)	22,187	23,326	27,668	25,270	25,308
Adjusted net invested capital	(2)	44,226	52,166	50,294	47,017	49,091
Debt ratio (Adjusted net financial debt/Adjusted net invested capital)		50.2%	44.7%	55.0%	53.7%	51.6%

Consolidated profit ratios(*)

		2021	2020	2019	2018	2017
EBITDA / Revenues	(1)	33.2%	42.6%	45.3%	39.1%	39.3%
EBIT / Revenues (ROS)	(1)	(23.0%)	13.3%	17.7%	3.0%	16.6%
Adjusted net financial debt/EBITDA	(1)	4.4	3.5	3.4	3.4	3.2

(*) As of January 1, 2019, the TIM Group has adopted the new IFRS 16 (Leases) with the modified retrospective method (without the restatement of comparative financial information of previous years). In addition, effective from January 1, 2018, the TIM Group has adopted: The new IFRS 9 (Financial Instruments) retrospectively - making use of the specific exemptions provided for by the same standard and without restating the previous periods under comparison - and the new IFRS 15 (Revenue from contracts with customers) using the modified retrospective method. Consequently, operating and financial data of previous years have not been restated.

(1) Details are provided under "Alternative Performance Measures".

(2) Adjusted net invested capital = Total equity + Adjusted net financial debt.

Headcount, number in the Group at year end [(1)]

(number)	12/31/2021	12/31/2020	12/31/2019	12/31/2018	12/31/2017
Headcount (excluding headcount relating to Discontinued operations/Non-current assets held for sale	51,929	52,347	55,198	57,901	59,429
Headcount relating to Discontinued operations/Non-current assets held for sale	—	—	—	—	—

Headcount, average number in the Group [(1)]

(equivalent number)	2021	2020	2019	2018	2017
Headcount (excluding headcount relating to Discontinued operations/Non-current assets held for sale	47,942	49,099	51,917	54,423	54,946
Headcount relating to Discontinued operations/Non-current assets held for sale	—	—	—	—	—

Financial performance measures

TIM S.p.A.

(euros)		2021	2020	2019
Share prices (December average)				
- Ordinary		0.45	0.39	0.56
- Savings		0.42	0.42	0.55
Dividends per share	(2)			
- Ordinary		—	0.0100	0.0100
- Savings		—	0.0275	0.0275
Pay Out Ratio	(2) (*)	—	24%	35%
Market capitalization (in million euros)		9,387	8,458	11,762
Market to Book Value	(**)	0.57	0.34	0.65
Dividend Yield (based on December average)	(2) (***)			
- Ordinary		—	2.60%	1.80%
- Savings		—	6.49%	5.04%

TIM Group

(euros)	2021	2020	2019
Basic earnings per share - ordinary shares	(0.40)	0.34	0.04
Basic earnings per share – savings shares	(0.40)	0.35	0.05
Diluted earnings per share - ordinary shares	(0.40)	0.33	0.04
Diluted earnings per share – savings shares	(0.40)	0.34	0.05

(1) Includes employees with temp work contracts.

(2) For the year 2021, the ratio was calculated on the basis of the proposed resolutions submitted to the Shareholders' Meeting of April 7, 2022. For all periods, the reference index was assumed to be the Parent's Earnings, calculated by excluding non-recurring items (as detailed in the Note "Significant non-recurring events and transactions" in the Separate Financial Statements of TIM S.p.A. at December 31, 2021).

(*) Dividends paid in the following year/Profit for the year.

(**) Capitalization/Equity of TIM S.p.A..

(***) Dividends per share/Share prices.

Highlights of 2021

In the fourth quarter, double digit growth of the ICT business continued on the one hand and on the other the competition led various market operators to continue to leverage the price and discounts, thereby reducing the operating performance.

The company also redefined its top management structure in the quarter and embarked on an in-depth organizational and strategic review.

Net financial debt at December 31, 2021 stood at 22.2 billion euros (17.6 billion euros on an after lease basis) a drop of 1.1 billion euros compared to the last financial year (1 billion euros on an after lease basis).

In terms of **strategic initiatives**, the main changes are:

- **National Strategic Hub**: the Government has published the call for tenders and selected the project submitted by TIM together with CDP Equity, Leonardo and Sogei to create the National Strategic Hub (NSH) as a reference. If it wins (the announcement is expected in the first six months), the new company would provide Cloud services and infrastructure to the Public Administration, acquiring them mainly from industrial partners.
- **Fiber Network**: work to develop the FTTH network of the new company FiberCop continues, increasing the FTTH coverage of property units by 36% in the last year. As a result the TIM Group brought broadband to around 94% of fixed lines. The set of agreements between TIM, KKR and Fastweb relating to the establishment of the company FiberCop has been definitively approved by the Italian Competition Authority with the acceptance of the undertakings presented by the Parties.
- **Noovle**: revenues up by 20% YoY, in line with the plan objectives, thanks to development of the cloud and data centers business in partnership with Google Cloud and the main sector operators.
- **Magnifica** was launched at the end of October. It is the highest performing ultrabroadband offer portfolio on the Italian market with speeds of up to 10 Gbps in download thanks to TIM's fiber.
- In **Brazil**, local authorities (Anatel and Cade) have given the go-ahead to the project for TIM Brasil, Claro and Vivo to acquire Oi's mobile business.
- As regards **Sustainability**, the company has respected all the year's targets, in both Italy and Brazil, increasing the weight of renewable energy on the Group's total electricity consumption by 36% YoY, improving domestic energy eco-efficiency by a further 25% and bringing the increase to over 90% compared to 2019. Employee engagement in Italy, +20% since 2019, has already surpassed the objective set for 2023.

Performance in the fourth quarter 2021

The **churn rate** continued to improve in both the fixed (3.5%, -0.5pp YoY) and mobile (3.6%, -0.6pp YoY) segments, stabilizing at the lowest level in the last 14 years.

In the **mobile** segment, the performance of the lines overall (30.5 million) and of the average revenue per customer (ARPU) was stable, with respect to a moment of partial return to market rationality, also visible in the slowdown of customer flows between operators (market mobile number portability -21% YoY).

In the **fixed** segment, the lines performance slowed in the quarter (-82 thousand compared to the previous quarter) also due to the end of the first phase of the voucher program and the delayed launch of the second phase; however customer satisfaction improved by 4.1 percentage points. The average revenues (ARPU) of consumer customers dropped due to increasing competitive pressure.

The **ultrabroadband** segment exceeded **10 million lines** (retail and wholesale) for the first time, with an increase in the quarter of 300 thousand lines (compared with the previous quarter).

Innovative services' strong revenue growth continued, with cloud recording a 17% YoY increase in the quarter (+20% YoY in the twelve months) and total ICT revenues up by 21% YoY in the quarter (+23% YoY in the year).

Overall, the Domestic Business Unit record revenues from services down by 4.5% YoY in the quarter (-3.8% YoY in the year), partly offset by the good performance of TIM Brasil, with revenues from services up by 4.0% YoY in the quarter and 5.0% in the year.

Group **revenues** in the quarter stood at 4.0 billion euros down by -4.4% YoY (15.3 billion euros down by 1.9% YoY in the twelve months), while **revenues from services** amounted to 3.6 billion euros down by 2.8% YoY (13.9 billion euros down by 2.1% YoY in the twelve months).

The Group's **organic EBITDA** in the quarter stood at 1.4 billion euros down by -21.9% YoY (6.2 billion euros, -9.6% YoY in the twelve months), that of the Domestic Business Unit at 1.0 billion euros down by -28.5% YoY (4.9 billion euros, -12.8% YoY in the twelve months) and that of TIM Brasil at 0.4 billion euros up by 3.4% YoY (1.4 billion euros, +4.7% YoY in the twelve months). The drop in the domestic margin was for the most part linked, in addition to the aforementioned revenue trend, to the impact of the football business on the company's performances, higher start-up costs for new digital businesses and other provisions for commercial risks.

The Group's **EBITDA After Lease** stood at 1.2 billion euros, down by -25.7% YoY (5.4 billion euros, -11.6% YoY in the twelve months), while at domestic level it was 0.9 billion euros with a drop of -31.5% YoY (4.4 billion euros, -14.2% in the twelve months).

At Group level, the **investments** stood at 1.3 billion euros with a reduction of -3.8% YoY excluding licenses (3.8 billion euros up by 14.1% YoY in the twelve months excluding licenses).

The **net result** attributable to the Owners of the Parent was negative for 8.6 billion euros (-8.7 billion euros in the year). This result was also impacted by the impairment of domestic goodwill for 4.1 billion euros and the writing off, for 3.8 billion euros, by the Parent Company TIM S.p.A., of the deferred tax assets.

In detail, the impairment of domestic goodwill was carried out with reference to the flows of the 2022-2024 Industrial Plan and the projections up to 2026 for the domestic market in its current conditions and using a discount rate updated to the financial market conditions as at December 31, 2021. The new Industrial Plan is based on the results of the 2021 final accounting, reflects realistic expectations on future developments and outlines all the actions to create value for the shareholders. The write-off of deferred tax assets is linked to the extension to 50 years of the period of tax asset absorption introduced by Art. 160 of the 2022 Budget Law (Law 234/2021) and the changed assessment of the time frame for recoverability of deferred tax assets of TIM S.p.A.

Financial highlights

(million euros)		4th Quarter 2021 (a)	4th Quarter 2020 (b)	% Change (a-b)	2021 (a)	2020 (b)	% Change (a-b)
Revenues		3,976	4,148	(4.1)	15,316	15,805	(3.1)
EBITDA	(1)	731	1,621	(54.9)	5,080	6,739	(24.6)
EBITDA Margin	(1)	*18.4%*	*39.1%*	*(20.7) pp*	*33.2%*	*42.6%*	*(9.4) pp*
EBIT	(1)	(4,469)	477	—	(3,529)	2,104	—
EBIT Margin	(1)	—	*11.5%*	—	*(23.0%)*	*13.3%*	*(36.3) pp*
Profit (loss) for the period attributable to owners of the Parent		(8,642)	6,046	—	(8,652)	7,224	—
Capital Expenditures & spectrum		1,910	1,403	36.1	4,630	3,409	35.8
					12/31/2021 (a)	12/31/2020 (b)	Change Amount (a-b)
Adjusted net financial debt	(1)				22,187	23,326	(1,139)

(1) Details are provided under "Alternative Performance Measures".

Organic results [1]

(million euros)	4th Quarter 2021 (a)	4th Quarter 2020 comparable (b)	% Change	2021 (a)	2020 comparable (b)	% Change
TOTAL REVENUES	**3,981**	**4,166**	**(4.4)**	**15,321**	**15,615**	**(1.9)**
Domestic	3,229	3,435	(6.0)	12,510	12,933	(3.3)
Brazil	761	741	2.6	2,840	2,715	4.6
Other operations, adjustments and eliminations	(9)	(10)	—	(29)	(33)	—
SERVICE REVENUES	**3,581**	**3,686**	**(2.8)**	**13,911**	**14,214**	**(2.1)**
Domestic	2,857	2,993	(4.5)	11,188	11,627	(3.8)
o/w Wireline	*2,189*	*2,275*	*(3.7)*	*8,574*	*8,777*	*(2.3)*
o/w Mobile	*791*	*851*	*(7.1)*	*3,152*	*3,394*	*(7.1)*
Brazil	733	703	4.0	2,752	2,620	5.0
Other operations, adjustments and eliminations	(9)	(10)	—	(29)	(33)	—
EBITDA	**1,382**	**1,770**	**(21.9)**	**6,223**	**6,882**	**(9.6)**
Domestic	999	1,397	(28.5)	4,867	5,583	(12.8)
Brazil	388	374	3.4	1,368	1,306	4.7
Other operations, adjustments and eliminations	(5)	(1)	—	(12)	(7)	—
EBITDA After Lease	**1,171**	**1,575**	**(25.7)**	**5,404**	**6,110**	**(11.6)**
Domestic	871	1,271	(31.5)	4,358	5,080	(14.2)
Brazil	305	305	—	1,058	1,037	2.0
Other operations, adjustments and eliminations	(5)	(1)	—	(12)	(7)	—
CAPEX (net of TLC licenses)	**1,346**	**1,399**	**(3.8)**	**3,826**	**3,354**	**14.1**
Domestic	1,147	1,168	(1.8)	3,137	2,742	14.4
Brazil	199	231	(14.3)	689	612	12.6

(1) The organic results exclude non-recurring items and the comparable base is calculated net of the foreign currency translation and the change in the scope of consolidation.

(million euros)	4th Quarter 2021 (a)	4th Quarter 2020 (b)	% Change	2021 (a)	2020 (b)	% Change
Equity Free Cash Flow	**172**	**748**	**(77.0)**	**632**	**2,414**	**(73.8)**
Equity Free Cash Flow After Lease	**34**	**622**	**—**	**62**	**1,615**	**(96.2)**
Adjusted Net Financial Debt [2]				**22,187**	**23,326**	**(4.9)**
Net Financial Debt After Lease[2]				**17,573**	**18,594**	**(5.5)**

(2) Adjusted net financial debt. The change in the fair value of derivatives and related financial liabilities/assets is adjusted by the booked Net Financial Debt with no monetary effect.

2021

The TIM Group infrastructures for the digital and sustainable transformation

FIXED ULTRABROADBAND

94%

of fixed lines* connected to the TIM network

75%

of white areas** reached, with more than 1 million lines activated

24%

of property units*** activated with FTTH

MOBILE ULTRABROADBAND

99%

of the national population covered by the 4G network

+35%

data traffic managed on TIM network

90%

of the city of Milan covered by the 5G network

INTERNATIONAL CONNECTIVITY

100Gbit/s

the transmission capacity offered

400Gbit/s

the IP transmission capacity offered

*Thanks to FTTC and FTTH technology.
** The white areas are areas without ultrabroadband (UBB) networks (connectivity), where private investors do not intend to invest in the next three years.
*** FTTH coverage refers to what are termed the "Technical property units" (UI), which represent 26.3 million property units throughout national territory for which, over time, TIM has activated a retail or wholesale telephone, broadband or ultrabroadband line.

TIM's contribution to the digital and sustainable transformation for people, businesses and organizations

The health emergency caused by the COVID-19 outbreak has underpinned the essential value of connectivity and digital solutions in emergency situations to cope with generalized social distancing, the interruption of the provision of in-person services, a stop to mobility and the interruption of school and education services. Because of social distancing, Italians have discovered that digital connectivity is the key to transforming the way they work, limiting travel to a minimum and ensuring compliance with the most rigorous safety standards.

In 2021, TIM continued to support citizens, businesses and institutions during the lock-downs and reopening phases, implementing a wide-ranging plan.

Infrastructure

At December 31, 2021, 94% of fixed lines connected to the TIM network are reached by ultrabroadband[1].

In 2021, growth continued of FTTH activations, which now reach approximately 24% of property units[2].

In addition, TIM's ultrabroadband coverage reaches approximately 75% of the white areas[3] where, at December 31, 2021, approximately 1 million ultrabroadband lines have been activated.

TIM's **4G** network covers more than **99% of the national population**.

In 2021, the volume of data handled on TIM's mobile ultrabroadband network grew by 35% compared with the previous year.

Opensignal, the independent global standard for measuring the user experience of mobile networks, has acknowledged TIM's **5G** network as the **fastest in Europe in download**. **In Milan**, TIM's 5G has reached **over 90% coverage** and the service is available in 48 municipalities. TIM has also entered the world's top 30 for having enabled an improvement in the switch from the 4G to the 5G network in terms of download and upload speeds in the spread of videos and gaming experience.

Thanks to its fiber network, **Sparkle**, the TIM Group global operator connects Europe, Africa, the Americas and Asia offering transmission capacity of up to 100 Gbit/s for the bandwidth managed and 400 Gbit/s for IP transmission.

Data Centers

Noovle, the TIM Group's cloud company, has **17 data centers** developed according to the highest security, protection, operativeness and energy efficiency standards, which in 2021 handled 72.8 Pbyte of data volume. It has been a **benefit company** since July 2021. It designs, builds and manages data centers according to eco-sustainability criteria - **certified on the basis of international standards** (LEED Gold), in addition to adopting circular economy models for the regeneration of servers and devices so as to lengthen the life cycle and use energy from renewable sources.

Sparkle manages a network of data centers in the Mediterranean basin (one in Italy, four in Greece and one in Turkey), in the hallmark of **energy efficiency** and **environmental sustainability**, which has allowed the company to obtain the main industry **ISO certifications**.

Sustainability Bonds

In January 2021, TIM placed its first 8-year one-billion-euro sustainability bond with a coupon of 1.625%, set to increase the Group's energy efficiency and finance green and social projects, including those for the transformation of the copper network into fiber.

Digital services for the production system

The TIM Group offers smart services for companies and the public administration, which contribute towards the well-being of society and environmental protection.

Cloud: maximum efficiency and security in data management; energy savings and reduction of CO_2 emissions.

- *Focus on core business*: the cloud enables customers to focus on their core business, aware that, for their data, they can rely on the maximum power of calculation and security and, at the same time, savings.
- *New scenarios*: the cloud is a transformation technology that enables new social and organizational scenarios (consider smart working, smart city, smart agriculture and scientific research projects).
- *More economic and entrepreneurial inclusivity*: thanks to the modularity of costs, small and medium-sized enterprises can benefit from this technology without needing to make major initial investments; start-ups can focus on the development of their digital solution, making IT investments subordinate to the success obtained.

Smart working: more efficient organization of work; reduction of traffic; less CO_2 and pollutant gases in the atmosphere

Customers can make their organization more efficient, as well as more resilient, i.e. able to react and adapt in the event of difficulty. In addition, carbon dioxide emissions are reduced because the use of means of transport

[1] Thanks to FTTC and FTTH technology.

[2] FTTH coverage refers to what are termed the "Technical property units" (UIT), which represent 24.3 million property units throughout national territory for which, over time, TIM has activated a retail or wholesale telephone, broadband or ultrabroadband line.

[3] The white areas are areas without ultrabroadband (UBB) networks (connectivity), where private investors do not intend to invest in the next three years.

and the energy consumption connected with office management also declines. For workers, the stress linked to the home-work commute reduces and the personal organizational flexibility (work-life balance) increases.

Cybersecurity: protection of the corporate computer systems; resilience for the digital economy

The world of industrial production and that of services are increasingly hinged on digital infrastructures and the public sector is gradually adjusting accordingly. Computer security is the basis of the digital social-economic model because it guarantees its reliability. The companies that adopt cybersecurity solutions suitable to their characteristics ensure the operative continuity of their business and avoid the financial and reputational costs linked to cyber attacks; at the same time, they generate the trust necessary in all operators for economic development.

Smart industry: greater productivity for factories; lesser environmental impact

Reduction of failures, reduction of dead time and therefore increased productivity, but also reduction in energy consumption. Predictive maintenance lengthens the life cycle of machinery, preventing the problem of early disposal. Monitoring using sensors increases the efficiency of energy consumption and reduces the consequent carbon dioxide emissions.

Smart agriculture: more plentiful, less costly harvests; protection of natural resources

- Support to agricultural companies and consortia in a vast range of everyday activities: more plentiful harvests, optimization of operations in the field, savings on resources used (water, phytopharmaceuticals, etc.), monitoring of agricultural machines and tracing of chain activities. All this thanks to technologies such as apps, field sensors and drones, which allow businesses to develop an increasingly sustainable agricultural model.
- It protects natural resources and green areas thanks to solutions that monitor the health of soil and plants.

Smart City: More efficient public administration; simpler life for citizens

- Extensive product portfolio for the analysis of movements and mobility, the digitization of public transport and waste collection, for sustainable mobility, for interactive tourism, for monitoring atmospheric pollution and for video analysis for the purpose of territorial control and safety.
- Projects developed for digital governance and a more effective control of urban phenomena in the cities of Rome, Venice, Parma, Ivrea and Novara.

Digital health: efficiency of the health system; staying close to those needing treatment

Remote medicine solutions for the remote monitoring of patients, with a consequent reduction in moves to health care facilities; more efficient assistance for reduced mobility patients; greater patient awareness of their health.

Venture capital

Satispay, WeSchool and Webidoo

In 2021, TIM - through TIM Ventures, its corporate venture capital vehicle - invested more than 22 million euros.

UV T-Growth fund

In 2021, TIM Ventures subscribed a total commitment of 60 million euros over a ten-year time-frame; of these, in 2021, approximately 12 million euros were invested in high-tech emerging realities.

Open innovation

TIM Challenge for Circular Economy

Launch of the challenge to search for innovative circular economy solutions developed by start-ups, SMEs and scale-ups.

Olivetti IoT Challenge

Launch of the challenge to identify the best entrepreneurial realities of the Internet of Things.

AWorld

Collaboration with the start-up AWorld for an awareness-raising initiative and engagement of TIM employees on sustainable living topics.

Development of the Italians' digital skills

TIM is an active member of the "Digital Republic" initiative promoted by the Ministry for Technological Innovation and the Digital Transition, the strategy of which is based on **four themed axes** to which it contributes.

Education and Further Training

- **New digital teachers**, an e-learning course on the teaching methods envisaged by Integrated Digital Teaching in collaboration with WeSchool, which involved 6,000 teachers.
- Cycle of **Digital Citizenship** webinars, with the Publishing Group La Scuola SEI, which involved 6,600 teachers.

- **Parents on the network/Advice for social children**, a talk held by Riccardo Luna with 111,000 views.
- **Scuola di Internet per tutti "STEM Edition"**, a training program for 3,700 students.
- **KidsVille**, a course created to educate good citizens, for 1,700 children.

Active workforce

- **Digital skills PA**: in 2021, an e-learning course was started for PA employees, which, starting January 2022, will be available on the "Syllabus" training platform of the public sector for 3 million public employees.
- **Webinar** on the digital transformation for SMEs and professionals with 5,000 participations.

Specialist ICT skills

- In 2021, the partnership was launched with **42Roma Luiss**, a special free coding school, enriched by TIM with meetings and workshops on digital skills for innovation.

Citizens

- **Scuola di Internet per Tutti**: in 2021, 970 courses were started with 45,800 participations in the individual modules and more than 15,000 participants, carried out with the collaboration of 120 TIM employees.
- **Digital consumers, conscious and safe**: a training course intended for citizens and consumers in collaboration with the Consumer Associations (Adiconsum, Adoc, Altroconsumo, Cittadinanzattiva, Codacons, Federconsumatori and U.Di.Con.), which involved 4,000 participants.
- **Dire, Fare, Digitale!**: a 4W4I event during which tools were presented for the best experience with digital and to reduce the distance between connected and disconnected, with 6,600 people connected.
- **Storie di Risorgimento Digitale**: a documentary-series created by TIM and RAI Play and launched on December 7, 2021, which is structured with 8 episodes on the new opportunities made possible by smartphones.

Brazil

Connectivity

TIM Brasil has the public commitment to extend **4G connectivity to all municipalities of Brazil by 2023** and, in the fourth quarter of 2021, was one of the main winners of the 5G auction, which will allow the company to explore new applications and innovative solutions.

Agricultural food

TIM Brasil is working on the improvement of **4G mobile coverage in rural areas** and also provides other digital services for the industry, such as a smart platform for agricultural companies, to improve their production efficiency and monitoring and automation solutions.

Digital Services

TIM Brasil has created the **first IoT Marketplace** in Brazil, presenting solutions for smart cities, smart industry and smart farms. In addition, in 2021, TIM Brasil signed a partnership with **C6 Digital Bank** and it has an agreement currently being prepared to explore remote medicine and **e-health** opportunities.

Digital Skills

TIM Brasil undertakes to train more than **5,000 employees** on digital skills by 2023. The partnership with the Cogna Group offers exclusive benefits for customers, such as the "knowledge bonus", discounts on on-line degree courses and free access to more than **400 courses** and TIM Tec, open platform developed by the TIM Institute, which offers **more than 30 courses** about technology, information, innovation and communication, free to all.

Non-recurring events

In the years 2021 and 2020, the TIM Group recognized **non-recurring net operating expenses** connected to events and transactions that by their nature do not occur on an ongoing basis in the normal course of operations and which have been shown because their amount is significant. Non-recurring charges include, among others, any goodwill impairment changes, provisions for regulatory disputes and potential liabilities related to them, liabilities with customers and/or suppliers, and provisions for onerous contracts, charges associated with corporate reorganization/restructuring and prior-year adjustments.

In detail:

(million euros)	2021	2020
Non-recurring expenses/(income)		
Revenues		
Revenue adjustments	5	39
Other income		
Other operating provisions absorption	—	(1)
Recovery of operating expenses	(13)	—
Acquisition of goods and services and Change in inventories		
Expenses related to agreements and the development of non-recurring projects	49	58
Employee benefits expenses		
Charges connected to corporate reorganization/restructuring and other costs	367	74
Other operating expenses		
Sundry expenses and provisions	735	148
Impact on Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)	**1,143**	**318**
Goodwill impairment loss Domestic CGU	4,120	—
Impact on EBIT - Operating profit (loss)	**5,263**	**318**

Specifically, non-recurring events for the year 2021 included:

- 4,120 million euros for the impairment loss on Goodwill attributed to the Domestic Cash Generating Unit (CGU). The impairment test, carried out when drawing up the 2021 Financial Statements, was performed by referring to the flows of the 2022 - 2024 Industrial Plan and the projections up to 2026 of the CGU in its current conditions, and using a discount rate updated to the financial market conditions as at December 31, 2021. The new Industrial Plan is based on the results of the 2021 final accounting, reflects realistic expectations on future developments and outlines all the actions to create value for the shareholders. The impairment loss seen during the year is entirely due to goodwill;
- 735 million euros in other operating expenses, mainly referring to provisions made for disputes, transactions, regulatory sanctions and related potential liabilities as well as expenses connected with the COVID-19 emergency for provisions made as a consequence of the worsening of the expected credit losses of Corporate customers, connected with the expected evolution of the pandemic.

  Other operating expenses - Sundry expenses and provisions include 548 million euros for the posting of a Contractual Risk Provision for Onerous Contracts (IAS 37) relating to ongoing relations with some counterparties for the offer of multimedia content.

  In particular, they include the accrual of the Net Present Value of the negative margin connected with some partnerships, including the one in place between TIM and DAZN for the offer in Italy on the TIMVISION platform of DAZN content, including all matches of the Serie A football championship for the seasons 2021-22, 2022-23 and 2023-24.

  In greater detail, as part of the definition of the 2022-2024 Strategic Plan, the business plan hypotheses have been updated for the current football season and the next two, pointing out that the total margins of the project, including TIM's contractual commitments towards DAZN in terms of fees, for lack of remedy by DAZN of certain breaches already disputed, is very much negative.

  Use of said Provision throughout the contractual term will make it possible to offset the negative item of the margin (EBITDA), thereby obtaining null EBIT (organic or operative margin) for the DAZN offer contents sale business.

  With specific regard to the Contractual Risk Provision for Onerous Contracts relating to content, the financial reports for future years and throughout the life of the contract will indicate:

  - the amount used of the Provision for risks covering the negative margin;
  - the amount of the total organic margins (organic EBITDA) that would have been recorded without using said Provision;
  - the financial outlay connected with the payments due to counterparties.
- 367 million euros in employee benefit expenses mainly connected with business reorganization/restructuring processes following the application of art. 4 of Law no. 92 of June 28, 2012, as defined in the trade union agreements signed between the some of the Group companies, including the Parent Company TIM S.p.A. and the trade unions;

- 49 million euros for expenses related to agreements and the development of non-recurring projects, as well as costs for purchases relating to supplies that became necessary for the management of the health emergency;
- 8 million euros in net income for adjustments to revenues and the recovery of operating expenses.

In 2020, the TIM Group recorded net non-recurring charges for a total of 318 million euros, net of the change in scope for 5 million euros and the exchange effect (1 million euros), mainly relative to:

- 39 million euros in adjustments to revenues, of which 38 million in discounts as a result of TIM S.p.A. customer support measures in relation to the COVID-19 pandemic;
- 58 million euros in expenses related to agreements and the development of non-recurring projects, as well as costs for purchases relating to supplies that became necessary for the management of the health emergency;
- 74 million euros in employee benefits expenses primarily associated with corporate reorganization/restructuring processes and other costs;
- 148 million euros of other operating expenses mainly in relation to provisions and expenses connected with the management of credits deriving from the worsening of the macroeconomic context following the COVID-19 emergency, costs for regulatory sanctions, as well as expenses related to agreements and the development of non-recurring projects.

Non-financial performance

The new styles adopted for living, working and learning as a result of the pandemic have increased awareness that the path to sustainable development also involves the use of ICT products and services, enabling factors for inclusive development. Digital infrastructures, which are increasingly necessary on a capillary level throughout the entire territory, to guarantee all the advantages and opportunities they offer, must be flanked by digital training, necessary in both the public (schools and Public Administration) and private (families and businesses) sectors to foster a truly inclusive development. TIM is strongly committed on all these fronts, with a leading role.

At the start of 2021, the Group aligned its funding sources with the Strategic Plan which places ESG objectives at the center of its development strategy, placing TIM's first Sustainability Bond for a billion euros.

During the year, TIM went beyond the objectives of the previous Sustainability Plan, with a target of zero Scope-2 emissions by 2025, compared to the previous -70%. The year also saw TIM take on the guidelines of the Science Based Target Initiative: in July, the Group sent its letter of commitment in which it expressed its ambition to contribute, through near-term targets and related actions, to holding global warming to below 1.5 °C; in November, the targets relating to Scope 1 and 2 and Scope 3 emissions were submitted, validation of which is expected by SBTi in the first half of 2022.

The goal of *Carbon Neutrality* by 2030 for which TIM remains firm, deploying the most suitable actions to achieve this goal, based on a cross-functional analysis that takes shape in the energy transition matrix. The commitment to carbon neutrality does not only concern internal processes but also the tools that TIM makes available to its customers thanks to the offer of energy monitoring and control solutions and the cloud offer that can optimize the use of servers.

In 2021, TIM not only confirmed its presence on the main sustainability indexes and ratings, including a clear improvement in the Bloomberg Gender Equality Index, but also increased the number, entering the new Borsa Italiana MIB ESG index, made up of the 40 blue chip companies listed in Italy that adopt the best social, environmental and governance practices. This is confirmation for TIM, which is already part of the Nasdaq Sustainable Bond Network, the sustainable finance platform managed by Nasdaq, that brings together investors, issuers, investment banks and specialized organizations.

The Plan’s objectives, where possible with reference to 2021, were all achieved, with the excellent performance of the domestic “Engagement” cluster, which improved by 20 points compared to 2019, exceeding the growth target expected. The Sustainability Plan places great emphasis on TIM’s people, with a recruitment and training program to better meet the challenges of the Information and Communications Technology sector, as well as an incentive plan with ESG objectives.

Finally, sustainability governance was further strengthened by setting up a Board Sustainability Committee chaired by the Chairman of the Group and assigned the task, amongst others, of speeding up implementation of environmental, social and governance (ESG) commitments, included in the Strategic Plan.

The Sustainability Report allows for an in-depth analysis of the achievement of the annual targets and the progress of the multi-year targets into which the Sustainability Plan is grouped, highlighting the contribution to the United Nations 2030 Agenda Sustainable Development Goals.

Introduction

*The TIM Group and TIM S.p.A. Consolidated Financial Statements for the year 2021 and the comparative figures for the previous year have been prepared in compliance with the IFRS issued by the International Accounting Standards Board and endorsed by the European Union ("**IFRS**").*

The accounting policies and consolidation principles adopted are consistent with those applied for the TIM Group Consolidated Financial Statements and the TIM S.p.A. Separate Financial Statements at December 31, 2020, except for the amendments to the standards issued by IASB and adopted starting from January 1, 2021.

***TIM Group, in addition to the conventional financial performance measures established by the IFRS, uses certain alternative performance measures in order to present a better understanding of the trend of operations and financial condition.** Specifically, these alternative performance measures refer to: EBITDA; EBIT; organic change and impact of non-recurring items on revenues, EBITDA and EBIT; EBITDA margin and EBIT margin; and net financial debt carrying amount and adjusted net financial debt; Equity Free Cash Flow. Following the adoption of IFRS 16, the TIM Group also presents the following additional alternative performance measures:*

- ***EBITDA adjusted After Lease ("EBITDA-AL")**, calculated by adjusting the Organic EBITDA, net of the non-recurring items, from the amounts connected with the accounting treatment of the lease contracts according to IFRS 16;*
- ***Adjusted net financial debt After Lease**, calculated by excluding from the adjusted net financial debt the net liabilities related to the accounting reatment of lease contracts according to IFRS 16;*
- ***Equity Free Cash Flow After Lease**, calculated by excluding from the Equity Free Cash Flow the amounts related to lease payments.*

In line with the ESMA guidance on alternative performance measures (Guidelines ESMA/2015/1415), the meaning and contents of such are explained in the Chapter on "Alternative performance measures" and the analytical detail of the amounts of the reclassifications introduced and of the methods for determining indicators is provided.

Lastly, the section entitled "Business Outlook for the year 2022" contains forward-looking statements in relation to the Group's intentions, beliefs or current expectations regarding financial performance and other aspects of the Group's operations and strategies. Readers of this Annual Financial Report are reminded not to place undue reliance on forward-looking statements; in fact, actual results may differ significantly from forecasts owing to risks and uncertainties depending on numerous factors, the majority of which are beyond the scope of the Group's control. Please refer to the "Main risks and uncertainties" section for more information. It provides a detailed description of the major risks pertaining to the TIM Group business activity which can, even considerably, affect its ability to meet the set goals.

Main changes in the scope of consolidation of the TIM Group

The following were the main corporate transactions implemented during **2021**:

- *Noovle S.p.A. (Domestic Business Unit)*: starting January 1, 2021, the conferral is effective to Noovle S.p.A. of the TIM S.p.A. business unit comprising the assets and liabilities and employees involved in the supply of services for the Cloud and Edge Computing and the rent of spaces, including virtual, also offered through a dedicated network of data centers;
- *FiberCop S.p.A.; Flash Fiber S.r.l. (Domestic Business Unit)*: starting March 31, 2021, the conferral is effective to FiberCop S.p.A. of the TIM S.p.A. business unit comprising the goods, assets and liabilities and legal relations organized functionally for the supply of passive fiber or copper access services, used by TIM, and at the service of other authorized operators (OAOs), by means of the secondary network (the "last mile"). At the same time, the purchase was completed by Teemo Bidco, an indirect subsidiary of KKR Global Infrastructure Investors III L.P., of 37.5% of FiberCop from TIM and Fastweb has subscribed FiberCop shares corresponding to 4.5% of the company's capital, through the conferral of the stake held in Flash Fiber, which was simultaneously incorporated into FiberCop;
- *TIM Tank S.r.l. (Other activities)*: on April 1, 2021, it was merged into Telecom Italia Ventures S.r.l. with accounting and tax effects backdated to January 1, 2021;
- *Telecom Italia Trust Technologies S.r.l. (Domestic Business Unit)*: starting April 1, 2021, the investment in the company was conferred by TIM S.p.A. to Olivetti S.p.A.;
- *TIM S.p.A. (Domestic Business Unit)*: on June 30, 2021, the purchase of the BT Italia Business Unit was completed, offering services to public administration customers and small and medium business/enterprise (SMB/SME) customers. The purchase also includes support for customers of the SMB Business Unit, supplied by Atlanet, the BT Contact Center of Palermo;
- *TIM Servizi Digitali S.p.A. (Domestic Business Unit)*: company established on July 30, 2021; the company's corporate purpose is the development and maintenance of plants for the supply of telecommunications services; to this end, we note that in September 2021, the company stipulated a rental contract with Sittel S.p.A. for a business unit consisting of the "construction", "delivery" and "assurance" of telecommunications networks and plants;
- *Panama Digital Gateway S.A. (Domestic Business Unit)*: company established in July 2021 for the construction of a digital hub that seeks to offer a reference hub for the whole of Central America, the region of the Andes and the Caribbean;

- *Staer Sistemi S.r.l. (Domestic Business Unit)*: company acquired by Olivetti S.p.A. on September 30, 2021. The company's corporate purpose is the carrying out of activities connected with the production and marketing of electronic systems and programs and activities connected with energy efficiency plants;
- *I-Systems S.A. - formerly FiberCo Soluções de Infraestrutura S.A. (Brazil Business Unit)*: starting November 2021, following completion of the agreement between TIM S.A. and IHS Fiber Brasil - Cessão de Infraestruturas Ltda. ("IHS Brasil"), IHS Brasil holds 51% of the share capital of FiberCo, with the remaining 49% is held by TIM S.A.. FiberCo is the company established by TIM S.A. for the segregation of its network assets and the provision of infrastructure services. Starting from the operation, FiberCo has been renamed I-Systems and is accounted for by the TIM Group using the equity method;
- *Olivetti Payments Solutions S.p.A. (Domestic Business Unit)*: company established on 1 December 2021; its business purpose is the management of equity investments, study and research activities, commercial, industrial, financial movable and real estate activities.

The following should also be noted:

- *TIMFin S.p.A.*: on January 14, 2021, it was registered with the Register of Financial Intermediaries pursuant to Art. 106 of the CLB.

During **2020**, the main changes in the scope of consolidation were as follows:

- *Infrastrutture Wireless Italiane S.p.A. (INWIT) (Domestic Business Unit):* on March 31, 2020 the merger by incorporation of Vodafone Towers S.r.l. into INWIT S.p.A. was completed. The transaction, which enabled the creation of Italy's leading tower operator, entailed the dilution of the TIM Group's stake in the capital of INWIT from 60% to 37.5%; therefore, as of March 31, 2020, the equity investment in INWIT S.p.A. is accounted for using the equity method. Starting from the Consolidated Financial Statements as at December 31, 2019 and until the completion of the aforementioned merger INWIT S.p.A. was presented as an "Asset held for sale"; therefore, TIM Group consolidated economic data and cash flows for 2020 include data of INWIT S.p.a. for the first quarter of 2020, net of amortization and depreciation for the period, as required by IFRS 5. Also note that during 2020, additional stock packets were transferred, corresponding to 7.3% of INWIT share capital. At December 31, 2021, TIM Group's investment held in INWIT was 30.2%;
- *Noovle S.r.l. (Domestic Business Unit)*: on May 21, 2020, TIM S.p.A. finalized the acquisition of 100% of the quotas in Noovle S.r.l., an Italian ICT consulting and system integration company, specialized in supplying cloud solutions and projects and one of Google Cloud's leading partners on the Italian market;
- *Daphne 3 S.p.A. (Domestic Business Unit)*: company established on July 24, 2020; the corporate purpose is the acquisition, holding, management and disposal of equity investments in INWIT - Infrastrutture Wireless Italiane S.p.A.;
- *TIM My Broker S.r.l. (Domestic Business Unit)*: company established on August 4, 2020; the corporate purpose is mainly insurance intermediation activities pursuant to art. 106 of Legislative Decree no. 209 of September 7, 2005 as subsequently amended and supplemented.
- *Noovle S.p.A.* (*Domestic Business Unit*): company established on October 9, 2020; the corporate purpose is primarily the planning, design, implementation, commissioning and management of Data Center infrastructure implementation and collocation services;
- *FiberCop S.p.A.(Domestic Business Unit)*: company incorporated on November 2, 2020; the corporate purpose is the design, building, purchase, management, maintenance and sale of infrastructures, networks, cabled access services easement to end customer facilities offered to telecommunications industry operators across Italy;
- *FiberCo Soluções de Infraestrutura Ltda (Brazil Business Unit)*: telecommunications services company established on December 21, 2020.

The following should also be noted:

- *TIM Participações S.A. (Brazil Business Unit)*: merger by incorporation into TIM S.A. became effective as of September 2020;
- *TN Fiber S.r.l. (Domestic Business Unit)*: was merged into TIM S.p.A. on September 30, 2020, with tax effects backdated to January 1, 2020;
- *TIM Vision S.r.l. (Domestic Business Unit)*: was merged into TIM S.p.A. on October 1, 2020, with accounting and tax effects backdated to January 1, 2020;
- *H.R. Services S.r.l. (Domestic Business Unit)*: was merged into TIM S.p.A. on December 31, 2020, with accounting and tax effects backdated to January 1, 2020;
- *TIMFin S.p.A.*: on November 3, 2020, the Bank of Italy authorized TIMFin to carry out the business of granting loans to the public pursuant to articles 106 et seq. of the CLB. Registration in the Register of Financial Intermediaries is subject to the fulfillment of certain operational requirements.

Main corporate actions

Establishment of FiberCop S.p.A.

Starting March 31, 2021, the conferral is effective to FiberCop S.p.A. of the TIM S.p.A. business unit comprising the goods, assets and liabilities and legal relations organized functionally for the supply of passive fiber or copper access services, used by TIM, and at the service of other authorized operators (OAOs), by means of the secondary network (the "last mile").

At the same time, the purchase was completed by Teemo Bidco, an indirect subsidiary of KKR Global Infrastructure Investors III L.P., of 37.5% of FiberCop from TIM and Fastweb has subscribed FiberCop shares corresponding to 4.5% of the company's capital, through the conferral of the stake held in Flash Fiber, which was simultaneously incorporated into FiberCop.

The transaction

The establishment of FiberCop S.p.A. (hereinafter also "FiberCop" or the "Company") is part of the project to expand optical fiber coverage throughout Italy; it aims to play a key role in bridging the digital divide in Italy, and accelerating customer transition from copper to fiber. Specifically:

- the company's purpose is the design, construct and manage infrastructure for the provision of wired access to the end users' premises to telecommunications operators;
- FiberCop operates in accordance with the co-investment model and is the first in Europe to apply the new European Electronic Communications Code nationwide;
- FiberCop has a network asset that already offers UBB connections to around 94% of fixed lines thanks to FTTC and FTTH technology, and will continue to develop FTTH coverage, with connection speeds of over 1 Gigabit. The objective is to reach 75% of the housing units in gray and black areas by 2025.

The company was established on November 2, 2020 with share capital fully paid in by the single shareholder TIM.

On March 31, 2021, following the co-investment agreements between TIM, KKR Infrastructure L.P. (hereinafter also "KKR") and Fastweb S.p.A. (hereinafter "Fastweb"), KKR finalized its entry into FiberCop's capital through Teemo Bidco Sarl (37.5%) and Fastweb (4.5%).

In particular, on March 31, 2021 the following transactions were finalized:

- Conferral of TIM's secondary network (from the street cabinet to customers' homes);
- Conferral of Fastweb's shareholding in Flash Fiber S.r.l. (hereinafter "Flash Fiber"), a company owned by TIM (80%) and Fastweb (20%);
- Merger of Flash Fiber into FiberCop, backdating the accounting and tax effects to January 1, 2021, which resulted in the contribution of the fiber optic network previously developed in 29 cities;
- Purchase by Teemo Bidco Sarl of 37.5% of FiberCop from TIM.

In detail, the FiberCop shareholders' meeting, passed resolution on March 24, 2021 to approve the paid capital increase, with a first tranche reserved for TIM totaling 4,643 million euros (8.95 million euros of which to be allocated to share capital) to be released through the contribution in kind of the business unit relating to the "secondary network", and a second tranche reserved for the company Fastweb totaling 210 million euros (1 million euros of which to be allocated to share capital) to be released through the conferral of the 20% stake in Flash Fiber's share capital.

At the same time, the merger by incorporation of Flash Fiber into FiberCop involved the elimination of the full shareholdings, valued at 460 million euros against the merged company equity of 290 million euros at March 31, 2021, and the recognition of a negative merger reserve of 170 million euros (18 million euros for the TIM portion and 152 million euros for the Fastweb portion).

Following these transactions, the share capital of FiberCop S.p.A. broke down as follows at December 31, 2021: TIM S.p.A. 58%; Teemo Bidco Sarl 37.5%; Fastweb S.p.A. 4.5%.

The Master Service Agreement

To regulate the commercial relationship between TIM and FiberCop and ensure continuity of operations and consolidation of its processes, TIM and FiberCop signed a number of agreements, including: the Master Service Agreement which governs the provision of services provided to TIM and FiberCop and vice versa; the IRU Master Agreement which governs FiberCop's grant to TIM of the right to use all of the installation or fiber optic infrastructure that has come under FiberCop's ownership; the Transitional Services Agreement with TIM which entrusts TIM with the management and development of the IT systems during FiberCop's start-up phase; as well as agreements for the provision of necessary general services by TIM for the company to operate. In addition to the agreement entered into with TIM, FiberCop signed the Master Service Agreement with Fastweb to regulate the provision of services by both parties as part of the network development project.

Obligations underlying the Contractual Commitments

The Master Service Agreement stipulated between TIM and FiberCop regulates the supply of reciprocal services within the secondary network infrastructure development project on Italian territory.

Under the scope of the Master Service Agreement, both parties have made certain commitments: TIM has made commitments to FiberCop on an annual basis in terms of minimum purchases of services and migration of the customer base from copper to fiber optic and the development of the horizontal FTTH network; FiberCop has made commitments to purchase the primary network and the construction and maintenance services from TIM.

In connection with these commitments, the agreements envisage penalties applicable to either party if they should not be respected, and rights in the favor of Teemo BidCo, as minority shareholder, to protect against any failure by TIM to execute the contractual commitments made; this is all in line with standard market practice.

These penalties charged to the parties and rights of the minority shareholder are assessed when drafting the financial statements and subject to reconsideration at each accounting end date.

Establishment of Noovle S.p.A.

Starting January 1, 2021, the conferral is effective to Noovle S.p.A. of the TIM S.p.A. business unit comprising the assets and liabilities and employees involved in the supply of services for the Cloud and Edge Computing business and the rent of spaces, including virtual, also offered through a dedicated network of data centers.

The transaction

With the aim of extending its leadership in cloud services, seizing the business opportunities presented by the market and maximizing efficiency and effectiveness, particularly in terms of overall security, TIM has decided to concentrate its assets and skills in the cloud area, that were previously spread among several of TIM's departments, into a single company. Also in business terms, the transaction is the outcome of a collaboration agreement with Google Cloud (a partnership signed in the first quarter of 2020) for the creation of innovative public, private and hybrid cloud services to enrich TIM's offer of technological services.

The transaction ensures a strong focus on that sector and favors an acceleration of cloud sales on the market as well as an effective and efficient management of the partial migration of the computational workloads of TIM's IT to the public cloud, guaranteeing the optimization of infrastructure and operations.

The transaction also allows the further development of skills in the cloud area and the achievement of major sustainability objectives.

Operation structure

The transaction took the form of a contribution in kind, pursuant to Art. 2343 ter, second paragraph, letter b) of the Italian Civil Code, of a TIM business complex to Noovle S.p.A., a company set up and wholly controlled by TIM S.p.A. for this purpose and subject to its management and coordination.

The conferral involved the assignment to the transferee company of a business unit consisting of assets, liabilities, contracts of purchase and sale, employees and anything else intended for and attributable to the provision i) of services relating to the cloud business, including ICT services to be supplied to TIM itself, and ii) the rental of spaces, including virtual ones, also offered through a dedicated network of data centers.

Agreements with TIM signed under the scope of the conferral

With a view to ensuring the homogeneous management of the commercial relationship with TIM and to guaranteeing continuity of operations and consolidation of its processes, early 2021, Noovle signed various agreements with the parent company, in particular:

- the two Master Service Agreements, signed on February 19, 2021, regulate on the one hand, the Services supplied by Noovle to the TIM client (including Site Management Services, Proximity services, Assurance; Security Management, Architecture & Engineering Services, Operating Governance Services, Demand Management, Infrastructure and Project Delivery, System Development & Management, COE – Centers of Excellence, Offering, Supply and Conditioning Services, Systems Management/Discovery Operations) and, on the other, the Services supplied by TIM in connection with the operative needs of Noovle, also in order to assure consistency with the Group's processes;
- under the scope of the carve out, Noovle was also conferred the specific project agreements of the TIM-Google partnership. The specified collaboration agreement with Google Cloud, signed by TIM in February 2020, is in fact structured into a main agreement and specific project contracts.

Consolidated operating performance

Revenues

Total **TIM Group revenues** for the year 2021 amounted to **15,316 million euros,** -3.1% compared to the year 2020 (15,805 million euros); the organic change was -1.9%.

The breakdown of total revenues for the year 2021 by operating segment in comparison with 2020 is as follows:

(million euros)	2021		2020		Changes		
		% weight		% weight	absolute	%	% organic excluding non-recurring
Domestic	12,505	81.6	12,905	81.7	(400)	(3.1)	(3.3)
Brazil	2,840	18.5	2,933	18.6	(93)	(3.2)	4.6
Other Operations	—	—	—	—	—		
Adjustments and eliminations	*(29)*	*(0.1)*	*(33)*	*(0.3)*	*4*		
Consolidated Total	**15,316**	**100.0**	**15,805**	**100.0**	**(489)**	**(3.1)**	**(1.9)**

The organic change in the Group's consolidated revenues is calculated by excluding the negative effect of exchange rate changes[1] (-226 million euros), the changes in the scope of consolidation (INWIT) (-3 million euros) as well as non-recurring items. More specifically, 2021 was affected by adjustments for non-recurring income totaling -5 million euros. 2020 was affected by adjustments of non-recurring revenues for -39 million euros, as a result of the commercial initiatives of TIM S.p.A. to support customers in dealing with the COVID-19 emergencies.

Revenues for the fourth quarter of 2021 totaled 3,976 million euros (4,148 million euros in the fourth quarter of 2020).

EBITDA

TIM Group EBITDA for the year 2021 came to **5,080 million euros** (6,739 million euros in the year 2020, -9.6% in organic terms).

The breakdown of EBITDA and the EBITDA margin broken down by operating segment for 2021 compared with 2020, are as follows:

(million euros)	2021		2020		Changes		
		% weight		% weight	absolute	%	% organic excluding non-recurring
Domestic	3,730	73.4	5,339	79.2	(1,609)	(30.1)	(12.8)
% of Revenues	*29.8*		*41.4*			*(11.6) pp*	*(4.3) pp*
Brazil	1,362	26.8	1,407	20.9	(45)	(3.2)	4.7
% of Revenues	*48.0*		*48.0*			*0.0 pp*	*0.1 pp*
Other Operations	(12)	(0.2)	(9)	(0.1)	(3)		
Adjustments and eliminations	*—*	*—*	*2*	*—*	*(2)*		
Consolidated Total	**5,080**	**100.0**	**6,739**	**100.0**	**(1,659)**	**(24.6)**	**(9.6)**

Organic EBITDA - net of the non-recurring items amounted **to 6,223 million euros**; the EBITDA margin was 40.6% (6,882 million euros in 2020, with an EBITDA margin of 44.1%).

In 2021 EBITDA, which includes an improvement of deferred contract costs linked to the reduction of churn, suffered net non-recurring charges for a total of 1,143 million euros, of which 25 million euros attributable to the COVID-19 emergency in Italy.

In 2020, the TIM Group recorded non-recurring charges for a total of 318 million euros (net of the change in scope and the exchange effect for a total of 6 million euros), of which 108 million euros were attributable to the COVID-19 emergency in Italy.

For further details, in addition to that reported in the "Non-recurring events" chapter of this report on operations, see the Note "Significant non-recurring events and transactions" in the Consolidated Financial Statements as at December 31, 2021 of the TIM Group.

[1]The average exchange rates used for the translation into euro (expressed in terms of units of local currency per 1 euro) were 6.35936 in 2021 and 5.88806 in 2020 for the Brazilian real. For the US dollar, the average exchange rates used were 1.18285 in 2021 and 1.14179 in 2020. The effect of the change in exchange rates is calculated by applying the foreign currency translation rates used for the current period to the period under comparison.

Organic EBITDA, net of the non-recurring items, is calculated as follows:

(million euros)	2021	2020	Changes	
			absolute	%
EBITDA	**5,080**	**6,739**	**(1,659)**	**(24.6)**
Foreign currency financial statements translation effect		(106)	106	
Changes in the scope of consolidation		(69)	69	
Non-recurring expenses/(income)	1,143	319	824	
Effect of translating non-recurring expenses/(income) in currency		(1)	1	
ORGANIC EBITDA - excluding non-recurring items	**6,223**	**6,882**	**(659)**	**(9.6)**
% of Revenues	*40.6*	*44.1*		*(3.5) pp*

Exchange rate fluctuations mainly related to the Brazil Business Unit.

The EBITDA of the fourth quarter of 2021 totaled 731 million euros (1,621 million euros in the fourth quarter of 2020).

Organic EBITDA net of the non-recurring items in the fourth quarter of 2021 totaled 1,382 million euros (1,770 million euros in the fourth quarter of 2020).

EBITDA was particularly impacted by the change in the line items analyzed below:

- **Acquisition of goods and services (6,550 million euros; 6,173 million euros in 2020):**

(million euros)	2021	2020	Changes
Acquisition of goods	1,266	1,203	63
Revenues due to other TLC operators and costs for telecommunications network access services	1,383	1,314	69
Commercial and advertising costs	1,186	1,192	(6)
Professional and consulting services	253	216	37
Power, maintenance and outsourced services	1,103	1,060	43
Lease and rental costs	603	436	167
Other	756	752	4
Total acquisition of goods and services	**6,550**	**6,173**	**377**
% of Revenues	*42.8*	*39.1*	*3.7 pp*

The increase mainly refers to the Domestic Business Unit for 405 million euros and is due to the greater purchases of goods for resale, sales expenses taking into account the improvement of deferred contract costs linked to the reduction of churn, leased asset costs, particularly for software license rental and greater hosting charges on non-strategic sites connected with the Master Service Agreement (MSA) stipulated between TIM S.p.A. and INWIT, with effect from March 31, 2020.

- **Employee benefits expenses (2,941 million euros; 2,639 million euros in 2020):**

(million euros)	2021	2020	Changes
Employee benefits expenses - Italy	**2,679**	**2,377**	**302**
Ordinary employee expenses and costs	2,312	2,303	9
Restructuring and other expenses	367	74	293
Employee benefits expenses – Outside Italy	**262**	**262**	**—**
Ordinary employee expenses and costs	262	262	—
Restructuring and other expenses	—	—	—
Total employee benefits expenses	**2,941**	**2,639**	**302**
% of Revenues	*19.2*	*16.7*	*2.5 pp*

The net increase of 302 million euros was mainly driven by:

- the increase of 293 million euros in the Italian component of “restructuring and other expenses” as a consequence of the application of the trade union agreements signed by the Parent company with the trade unions on March 08, 2021 and on April 23, 2021 and the agreements signed respectively on March 15, 2021 by the company Olivetti on April 27, 2021 by the company Noovle S.p.A. and on May 06, 2021 by the company Telecom Italia Sparkle;
- the increase of 9 million euros of the Italian component of ordinary employee expenses, mainly due to the balance of savings consequent to the reduction in the average salaried workforce (amounting to a total of -1,313 average employees, of whom an average of -184 deriving from the application of the Expansion Contract) and the expenses related to the renewal of the National Collective Bargaining Agreement;
- the substantive lack of change in the foreign component mainly related to the balance of the impact of the exchange rate change and the local salary dynamics of the Brazil Business Unit.

- **Other income (272 million euros; 211 million euros in 2020):**

(million euros)	2021	2020	Changes
Late payment fees charged for telephone services	39	46	(7)
Recovery of employee benefit expenses, purchases and services rendered	12	14	(2)
Capital and operating grants	28	34	(6)
Damages, penalties and recoveries connected with litigation	27	24	3
Estimate revisions and other adjustments	71	59	12
Special training income	67	13	54
Other	28	21	7
Total	**272**	**211**	**61**

In 2021, "Special training income" included 61 million euros (13 million euros in 2020) in repayments valued for the hours of training delivered (more than 3 million hours, involving approximately 37,000 employees), correlated with the activities tied to the training project financed through the Fondo Nuove Competenze (New Skills Fund - the Ministerial fund aimed at increasing innovative skills in companies).

For the parent company, this project began in December 2020 and drew to a close in May 2021 (repayments for approximately 60 million euros in 2021; approximately 13 million euros in 2020), whilst for the companies Olivetti and Telecom Italia Sparkle, it ended on December 31, 2021 (repayments for approximately 1 million euros in 2021).

- **Other operating expenses (1,502 million euros; 961 million euros in 2020):**

(million euros)	2021	2020	Changes
Write-downs and expenses in connection with credit management	305	423	(118)
Provision charges	704	43	661
TLC operating fees and charges	189	199	(10)
Indirect duties and taxes	99	96	3
Penalties, settlement compensation and administrative fines	127	120	7
Association dues and fees, donations, scholarships and traineeships	12	12	—
Other	66	68	(2)
Total	**1,502**	**961**	**541**

The increase essentially refers to the Domestic Business Unit (+572 million euros) and includes a non-recurring item of 735 million euros, mainly referring to disputes, transactions, expenses connected with regulatory sanctions and expenses related to agreements and the development of non-recurring projects, as well as provisions and expenses connected with credit management in connection with the COVID-19 emergency (20 million euros) following the worsening of the expected credit loss of corporate customers tied to the expected evolution of the pandemic.

For further details, in addition to that reported in the “Non-recurring events” chapter of this Report on Operations, see the Note "Significant non-recurring events and transactions" in the Consolidated Financial Statements as at December 31, 2021 of the TIM Group.

With reference to the “impairment and expenses connected with credit management”, the reduction on 2020 (-118 million euros) is the consequence of the consolidation of the Parent Company’s program to optimize processes started in 2020, aimed at increasing the efficiency of credit management, all round, intervening on the whole process involving the customer. More specifically, reference is made to the acceptance, management and collection of debt through to the assessment model of the new commercial offers.

The non-recurring items of the year 2020 of 148 million euros mainly relating to provisions and charges of the Domestic Business Unit related to credit management in relation to the COVID-19 emergency (46 million euros) as well as disputes and regulatory fines and expenses connected with agreements and the development of non-recurring projects.

Depreciation and amortization

In 2021 the item amounts to 4,490 million euros (4,616 million euros in 2020) and breaks down as follows:

(million euros)	2021	2020	Changes
Amortization of intangible assets with a finite useful life	1,511	1,627	(116)
Depreciation of tangible assets	2,284	2,301	(17)
Amortization of rights of use assets	695	688	7
Total	**4,490**	**4,616**	**(126)**

In particular, in 2021, the Parent Company TIM S.p.A. proceeded to revise the useful life of the IT software applications; in actual fact, following the start of the Digital Enterprise project and consequent verification of the effective and prospective duration of the systems impacted, the amortization period of assets used in fixed and mobile IT software development was revised, taking it from 3 to 6 years, with an impact of lesser period amortization for approximately 115 million euros.

Furthermore, depreciation of tangible assets included the estimated acceleration of depreciation as a consequence of both the switch-off of 3G in Italy, expected for June 2022 (equal to approximately 23 million euros) and the switch-off of part of the copper access network in Italy, hypothesized for end 2030 (equal to 31 million euros).

Net impairment losses on non-current assets

These amounted to 4,120 million euros in 2021 (8 million euros in 2020).

In accordance with IAS 36, goodwill is not subject to amortization, but is tested for impairment on at least an annual basis, when preparing the company's consolidated financial statements.

With reference to the Domestic Cash Generating Unit (CGU), the impairment test, conducted during the preparation of the 2021 Annual Financial Report, took as a reference the flows of the new 2022-2024 Industrial Plan - which, based on the results of the 2021 final accounting, reflects realistic aspects on future developments and outlines all the actions to create value for shareholders - on the basis of the projections up to 2026, assuming the use of domestic market assets in continuity with the conditions as at December 31, 2021 and using a discount rate updated to the financial market conditions as at December 31, 2021.

The configuration of the recoverable amount is the Fair Value estimated on the basis of the income approach, which has highlighted a value reduction of 4,120 million euros of goodwill attributed to the Domestic Cash Generating Unit.

Impairment testing of the Brazil Cash Generating Unit did not reveal any reduction in the value of goodwill allocated to it. The valuation was based on the Market Cap of TIM Brasil as at December 31, 2021 and highlighted a positive difference between the book value of the CGU and Fair Value.

Further details are provided in the Note "Goodwill" to the Consolidated Financial Statements at December 31, 2021 of the TIM Group.

EBIT

TIM Group EBIT for 2021 came to **-3,529 million euros** (+2,104 million euros in 2020).

Organic EBIT, net of the non-recurring items, amounted to **1,734 million euros** (2,313 million euros in 2020), with an EBIT margin of 11.3% (14.8% in 2020).

2021 EBIT is impacted negatively by net non-recurring charges, including the impairment loss on goodwill attributed to the Domestic Cash Generating Unit (4,120 million euros), for 5,263 million euros.

Organic EBIT, net of the non-recurring items, is calculated as follows:

(million euros)	2021	2020	Changes	
			absolute	%
EBIT	(3,529)	2,104	(5,633)	—
Foreign currency financial statements translation effect		(36)	36	
Changes in the scope of consolidation		(73)	73	
Non-recurring expenses/(income)	5,263	319	4,944	
Effect of translating non-recurring expenses/(income) in currency		(1)	1	
ORGANIC EBIT - excluding non-recurring items	1,734	2,313	(579)	(25.0)

The EBIT of the fourth quarter of 2021 totaled -4,469 million euros (+477 million euros in the fourth quarter of 2020).

Organic EBIT net of the non-recurring items in the fourth quarter of 2021 totaled 302 million euros (617 million euros in the fourth quarter of 2020).

Other income (expenses) from investments

The item is positive for 126 million euros and mainly included the net capital gain (119 million euros) recognized following the dilution from 100% to 49% of the equity investment of the Brazilian subsidiary TIM S.A. in I-Systems S.A. (formerly FiberCo Soluções de Infraestrutura S.A.), a company established by TIM S.A. for the segregation of its network assets and the provision of infrastructure services, following the completion of the agreement between TIM S.A. and IHS Fiber Brasil - Cessão de Infraestruturas Ltda. (IHS Brasil). See the section "Financial and Operating Highlights of the Business Units of the TIM Group – Brazil Business Unit" of the Report on Operations for more details.

Finance income (expenses), net

Finance income (expenses), net was negative and amounted to 1,150 million euros (-1,179 million euros in 2020): the improvement was mainly driven by lower finance expenses, connected to the reduction in the Group's average debt exposure, only partly offset by the positive effects of the change of some non-monetary items, of a currency and accounting nature.

Income tax expense

In 2021, the flow has a negative balance for a total of 3,885 million euros (positive for 5,955 million euros in 2020). Tax expense mainly relates to the partial writing off of the deferred tax assets entered in 2020 in exchange for the tax recognition of higher values booked in accordance with Decree Law 104/2020 Art. 110, subsections 8 and 8 bis; this write-off is due to the extension to 50 years of the period of tax asset absorption, introduced by Art. 160 of the 2022 Budget Law (Law 234/2021) and the changed assessment of the time frame for recoverability of deferred tax assets of TIM S.p.A. Further details are provided in the Note "Income tax expense (current and deferred)" to the Consolidated Financial Statements at December 31, 2021 of the TIM Group.

Profit (loss) for the year

This item breaks down as follows:

(million euros)	2021	2020
Profit (loss) for the year	**(8,400)**	**7,352**
Attributable to:		
Owners of the Parent:		
Profit (loss) from continuing operations	(8,652)	7,224
Profit (loss) from Discontinued operations/Non-current assets held for sale	—	—
Profit (loss) for the year attributable to owners of the Parent	**(8,652)**	**7,224**
Non-controlling interests:		
Profit (loss) from continuing operations	252	128
Profit (loss) from Discontinued operations/Non-current assets held for sale	—	—
Profit (loss) for the year attributable to Non-controlling interest	**252**	**128**

Net profit attributable to Owners of the Parent for 2021, recorded a loss of -8,652 million euros (+7,224 million euros in 2020), excluding the impact of non-recurring items the net profit for 2021 is positive for +40 million euros (+1,173 million euros in 2020).

For more details on non-recurring items, see the Note "Non-recurring events and transactions" in the Consolidated Financial Statements as at December 31, 2021 of the TIM Group.

2021

Business Unit

Key operating and financial data

Domestic

REVENUES		EBITDA MARGIN	
12,505	Millions of Euros	38.9%	organic excluding non recurrent

EBITDA		EBITDA ADJUSTED AFTER LEASE	
3,730	Millions of Euros	4,358	Millions of Euros

Fixed

TIM RETAIL PHYSICAL ACCESSES	TIM WHOLESALE PHYSICAL ACCESSES	BROADBAND ACCESSES TIM RETAIL
end of period	end of period	end of period
8,647	7,729	7,733
thousands	thousands	thousands

Mobile

LINES	AVERAGE MONTHLY REVENUES
end of period	Reported ARPU
30,466	7.5
thousands	Euros

Brazil

REVENUES		EBITDA	EBITDA MARGIN	
2,840	Millions of Euros	1,362	48.2%	organic excluding non recurrent

EBITDA ADJUSTED AFTER LEASE		LINES
1,058	Millions of Euros	52,066 thousands end of period

FINANCIAL AND OPERATING HIGHLIGHTS OF THE BUSINESS UNITS OF THE TIM GROUP

Domestic

(million euros)	2021 (a)	2020 (b)	Changes (a-b) absolute	%	organic % excluding non-recurring
Revenues	12,505	12,905	(400)	(3.1)	(3.3)
EBITDA	3,730	5,339	(1,609)	(30.1)	(12.8)
% of Revenues	*29.8*	*41.4*		*(11.6) pp*	*(4.3) pp*
EBIT	(3,990)	1,635	(5,625)		(32.5)
% of Revenues	*(31.9)*	*12.7*		*(44.6) pp*	*(4.4) pp*
Headcount at year end (number) (°)	42,591	42,925	(334)	(0.8)	

(°) Includes 16 agency contract workers at December 31, 2021 (14 at December 31, 2020)

(million euros)	4th Quarter 2021 (a)	4th Quarter 2020 (b)	Changes (a-b) absolute	%	organic % excluding non-recurring
Revenues	3,224	3,433	(209)	(6.1)	(6.0)
EBITDA	351	1,258	(907)	(72.1)	(28.5)
% of Revenues	*10.9*	*36.6*		*(25.7) pp*	*(9.8) pp*
EBIT	(4,621)	323	(4,944)		(68.1)
% of Revenues	—	*9.4*			*(8.8) pp*

Fixed

	12/31/2021	12/31/2020	12/31/2019
Total TIM Retail accesses (thousands	8,647	8,791	9,166
of which NGN (1)	*5,186*	*4,432*	*3,670*
Total TIM Wholesale accesses (thousands)	7,729	7,974	8,051
of which NGN	*4,819*	*4,220*	*3,309*
Active broadband accesses of TIM Retail (thousands)	7,733	7,635	7,592
Consumer ARPU (€/month) (2)	30.1	33.0	34.9
Broadband ARPU (€/month) (3)	33.4	31.3	27.7

(1) ultrabroadband access in FTTx and FWA mode, also including “data only” lines and GBE (Gigabit Ethernet).
(2) Revenues from organic Consumer retail services in proportion to the average Consumer accesses.
(3) Revenues from organic broadband and ICT services in proportion to the average TIM retail accesses.

Mobile

	12/31/2021	12/31/2020	12/31/2019
Lines at period end (thousands)	30,466	30,170	30,895
of which Human	*19,054*	*19,795*	*21,003*
Churn rate (%) (4)	14.7	18.6	20.4
Broadband users (thousands) (5)	12,783	12,818	12,823
Retail ARPU (€/month) (6)	7.5	8.0	8.7
Human ARPU (€/month) (7)	11.7	12.1	12.6

(4) Percentage of total lines that ceased in the period compared to the average number of total lines.
(5) Mobile lines using data services.
(6) Revenues from organic retail services (visitors and MVNO not included) compared to the total average number of lines.
(7) Revenues from organic retail services (visitors and MVNO not included) compared to the average number of human lines.

Revenues

Domestic Business Unit revenues amounted to 12,505 million euros, changing by -400 million euros (-3.1%) compared to 2020. In organic terms, they reduce by 423 million euros (-3.3% in 2020); in particular, revenues in 2021 were affected by non-recurring adjustments for 5 million euros, while revenues in 2020 were affected by non-recurring items for 39 million euros mainly referring to adjustments of revenues connected to TIM S.p.A.'s commercial initiatives to support customers in facing the COVID-19 emergency.

Revenues from stand-alone services come to 11,183 million euros (-422 million euros compared to 2020, -3.6%) and suffer the impact of the competition on the customer base and a reduction in ARPU levels; in organic terms, net of the above-specified non-recurring items, they drop by 439 million euros compared to 2020 (-3.8%).

In detail:

- **revenues from stand-alone Fixed market services** amounted to 8,574 million euros in organic terms, with a change compared to 2020 of -2.3% mainly due to the decrease in ARPU levels in the Consumer segment, which is also reflected in the trend of revenues from broadband services (-93 million euros compared to 2020, -4.0%), partly offset by the growth in revenues from ICT solutions (+242 million euros compared to 2020, +22.9%);
- **revenues from stand-alone Mobile market services** came to 3,152 million euros in organic terms (-242 million euros vs 2020, -7.1%), mainly due to ARPU levels and the reduction in the customer base connected with Human lines.

Revenues for Handset and Bundle & Handset, including the change in work in progress, are equal, in organic terms, to 1,322 million euros in 2021, with an increase of 16 million euros compared to 2020, for the most part attributable to the Fixed segment.

Details of revenues achieved in 2021 for the Domestic Business Unit are presented in the following table, broken down by market/business segment and compared to 2020.

(million euros)	4th Quarter 2021	4th Quarter 2020	2021	2020	% Change			
	(a)	(b)	(c)	(d)	(a/b)	(c/d)	organic excluding non-recurring (a/b)	organic excluding non-recurring (c/d)
Revenues	**3,224**	**3,433**	**12,505**	**12,905**	**(6.1)**	**(3.1)**	**(6.0)**	**(3.3)**
Consumer	1,326	1,525	5,419	5,897	(13.0)	(8.1)	(13.0)	(8.3)
Business	1,136	1,105	4,117	4,087	2.9	0.7	2.9	—
Wholesale National Market	462	510	1,946	1,906	(9.4)	2.1	(8.5)	2.4
Wholesale International Market	289	262	1,008	966	10.3	4.3	9.9	5.2
Other	11	31	15	49				

As regards the market segments of the Domestic Business Unit, note the following changes compared to 2020:

- **Consumer**: the segment consists of all Fixed and Mobile voice and Internet services and products managed and developed for individuals and families and of public telephony; customer care, operating credit support, loyalty and retention activities, sales within its remit, and administrative management of customers; includes the company TIM Retail, which coordinates the activities of flagship stores. In organic terms, net of the aforesaid non-recurring items, the revenues of the Consumer segment totaled 5,419 million euros (-488 million euros, -8.3%) and show a trend, compared to 2020, affected by the challenging competition and greater discipline in commercial processes. The trend seen in total revenues also applied to revenues from stand-alone services, which amounted to 4,726 million euros, changing by -454 million euros compared to 2020 (-8.8%). In particular:
  - **revenues from Mobile stand-alone services** totaled, in organic terms, 2,161 million euros (-182 million euros, -7.8% compared to 2020). The impact of the competitive dynamic remains, albeit with a lesser reduction of the customer base calling; revenues from roaming and incoming traffic are down due to the progressive reduction of interconnection tariffs;
  - revenues **from Fixed stand-alone services** totaled, in organic terms, 2,600 million euros (-270 million euros, -9.4% compared to 2020), primarily due to lower ARPU levels and the smaller Customer Base, which declined gradually over the course of 2021. The growth of broadband customers is highlighted, in particular ultrabroadband.

  Revenues for Handsets and Bundles & Handsets in the Consumer segment amounted to 693 million euros, -34 million euros compared to 2020 (-4.6%). The decrease is mainly due to lesser sales volumes of modems on fixed lines.
- **Business**: the segment consists of voice, data, and Internet services and products, and ICT solutions managed and developed for small and medium-size enterprises (SMEs), Small Offices/Home Offices (SOHOs), Top customers, the Public Sector, Large Accounts, and Enterprises in the Fixed and Mobile telecommunications markets. The following companies are included: Olivetti, TI Trust Technologies, Telsy and the Noovle Group. In organic terms, net of the aforesaid non-recurring items, revenues for the

Business segment amounted to 4,117 million euros (in line with 2020, of which -0.7% for revenues from the stand-alone services component). In particular:

- **total Mobile market revenues** showed a negative organic performance compared to 2020 (-0.5%), linked to the revenues from stand-alone services component (-4.4%) and the ARPU trend;
- **total Fixed revenues** in organic terms improved slightly by +6 million euros compared to 2020 (+0.2%), due to the revenues from services component (+0.4%) thanks to the increase in revenues from ICT services.

- **Wholesale National Market**: the segment consists of the management and development of the portfolio of regulated and unregulated wholesale services for Fixed-line and Mobile telecommunications operators in the domestic market. The following companies are included: TI San Marino and Telefonia Mobile Sammarinese. The Wholesale National Market segment revenues in 2021 came to 1,946 million euros, up by +40 million euros (+2.1%) compared to 2020, with a positive performance mainly driven by the growth in accesses in the ultrabroadband segment.
- **Wholesale International Market**: includes the activities of the Telecom Italia Sparkle group, which operates in the market for international voice, data and Internet services for fixed and mobile telecommunications operators, ISPs/ASPs (Wholesale market) and multinational companies through its own networks in the European, Mediterranean and South American markets. Revenues for the Wholesale International Market segment for 2021 totaled 1,008 million euros, up by 42 million euros (+4.3%) on the 2020 figure.
- **Other:** includes:
  - **Other Operations units**: covering technological innovation and development, engineering, construction and operating processes for network infrastructures, IT, systems and properties; and the company FiberCop S.p.A.;
  - **Staff & Other**: services provided by the Staff Departments and other support activities carried out by minor companies.

EBITDA

EBITDA for 2021 of the Domestic Business Unit amounted to 3,730 million euros (-1,609 million euros in 2020, -30.1%).

Organic EBITDA, net of the non-recurring items, amounted to 4,867 million euros (-716 million euros compared to 2020, -12.8%), with an EBITDA margin of 38.9% (-4.3 percentage points compared to 2020). In particular, in 2021 EBITDA reflected a total impact of 1,137 million euros referring to non-recurring items, of which 26 million euros related to the COVID-19 emergency in Italy. Moreover, non-recurring expenses include charges connected with corporate reorganization/restructuring processes, provisions for disputes, transactions, regulatory sanctions and potential liabilities associated thereto, provisions for onerous contracts and expenses related to agreements and the development of non-recurring projects.

Organic EBITDA, net of the non-recurring items, is calculated as follows:

(million euros)	2021	2020	Changes	
			absolute	%
EBITDA	3,730	5,339	(1,609)	(30.1)
Foreign currency financial statements translation effect	—	(1)	1	
Changes in the scope of consolidation	—	(69)	69	
Non-recurring expenses (Income)	1,137	314	823	
ORGANIC EBITDA, excluding Non-recurring items	4,867	5,583	(716)	(12.8)

EBITDA in the fourth quarter of 2021 was 351 million euros, (-907 million euros compared with 2020, -72.1%).

Regarding the dynamics for the main items, the following are worthy of note:

(million euros)	2021	2020	Changes
Acquisition of goods and services	5,534	5,129	405
Employee benefits expenses	2,703	2,401	302
Other operating expenses	1,211	639	572

In particular:

- **Other income** amounted to 259 million euros with an increase of 59 million euros compared to 2020:

(million euros)	2021	2020	Changes
Late payment fees charged for telephone services	29	40	(11)
Recovery of employee benefit expenses, purchases and services rendered	13	14	(1)
Capital and operating grants	26	32	(6)
Damages, penalties and recoveries connected with litigation	26	24	2
Estimate revisions and other adjustments	73	59	14
Special training income	67	13	54
Other income	25	18	7
Total	**259**	**200**	**59**

- **Acquisition of goods and services** amounted to 5,534 million euros with an increase of 405 million euros compared to 2020:

(million euros)	2021	2020	Changes
Acquisition of goods	1,154	1,063	91
Revenues due to other TLC operators and interconnection costs	1,258	1,191	67
Commercial and advertising costs	856	868	(12)
Professional and consulting services	162	128	34
Power, maintenance and outsourced services	943	889	54
Lease and rental costs	459	301	158
Other	702	689	13
Total acquisition of goods and services	**5,534**	**5,129**	**405**
% of Revenues	*44.3*	*39.7*	*4.6*

The increase of 405 million euros is mainly due to the greater purchases of goods for resale, sales expenses, taking into account the improvement in deferred contract costs linked to the reduction of the churn rate, leased asset costs, particularly for software license rental and greater hosting charges on non-strategic sites connected with the MSA INWIT contract, which started in April 2020.

- **Employee benefits expenses** amounted to 2,703 million euros with an increase of 302 million euros compared to 2020.
- **Other operating expenses** amounted to 1,211 million euros with an increase of 572 million euros compared to 2020:

(million euros)	2021	2020	Changes
Write-downs and expenses in connection with credit management	219	329	(110)
Provision charges	676	6	670
TLC operating fees and charges	43	44	(1)
Indirect duties and taxes	82	79	3
Penalties, settlement compensation and administrative fines	127	120	7
Association dues and fees, donations, scholarships and traineeships	11	11	—
Sundry expenses	53	50	3
Total	**1,211**	**639**	**572**

Other operating expenses for 2021 include non-recurring items for 735 million euros, mainly referring to disputes, transactions, expenses connected with regulatory sanctions and expenses related to agreements and the development of non-recurring projects, as well as provisions and expenses connected with credit management in connection with the COVID-19 emergency (20 million euros) following the worsening of the expected credit loss of corporate customers connected with the expected evolution of the pandemic.

Note that “Write-downs and expenses in connection with credit management” shows a reduction of 110 million euros compared with 2020, which is the consequence of the consolidation of the program to optimize processes started in 2020, aimed at increasing the efficiency of credit management, all round, intervening on the whole process involving the customer. More specifically, reference is made to the acceptance, management and collection of debt through to the assessment model of the new commercial offers.

The non-recurring items of 2020, amounting to 148 million euros, mainly referred to regulatory disputes and related liabilities and to liabilities with customers and/or suppliers.

EBIT

Domestic Business Unit EBIT for 2021 was negative for 3,990 million euros (-5,625 million euros compared to 2020), with an EBIT margin of -31.9% (-44.6 percentage points compared to 2020).

Organic EBIT, net of the non-recurring items, amounted to 1,267 million euros (-609 million euros in 2020, -32.5%), with an EBIT margin of 10.1% (14.5% in 2020).

In 2021 EBIT was negatively impacted by net non-recurring charges totaling 5,257 million euros (314 million euros in 2020), including the impairment of 4,120 million euros of goodwill attributed to the Domestic Cash Generating Unit.

Organic EBIT, net of the non-recurring items, is calculated as follows:

(million euros)	2021	2020	Changes	
			absolute	%
EBIT	**(3,990)**	**1,635**	**(5,625)**	
Changes in the scope of consolidation	—	(73)	73	
Non-recurring expenses (Income)	5,257	314	4,943	
ORGANIC EBIT, excluding Non-recurring items	**1,267**	**1,876**	**(609)**	**(32.5)**

EBIT in the fourth quarter of 2021 was -4,621 million euros, (-4,944 million euros compared with 2020).

Brazil

	(million euros)		(million Brazilian reais)		Changes		
	2021	2020	2021	2020	absolute	%	% organic excluding non-recurring
	(a)	(b)	(c)	(d)	(c-d)	(c-d)/d	
Revenues	2,840	2,933	18,058	17,268	790	4.6	4.6
EBITDA	1,362	1,407	8,661	8,282	379	4.6	4.7
% of Revenues	*48.0*	*48.0*	*48.0*	*48.0*		*0.0pp*	*0.1pp*
EBIT	473	476	3,010	2,801	209	7.5	7.7
% of Revenues	*16.7*	*16.2*	*16.7*	*16.2*		*0.5pp*	*0.5pp*
Headcount at year end (number)			9,325	9,409	(84)	(0.9)	

The average exchange rates used for the translation into euro (expressed in terms of units of Real per 1 euro) were 6.35936 for 2021 and 5.88806 for 2020.

	(million euros)		(million Brazilian reais)		Changes		
	4th Quarter 2021	4th Quarter 2020	4th Quarter 2021	4th Quarter 2020	absolute	%	% organic excluding non-recurring
	(a)	(b)	(c)	(d)	(c-d)	(c-d)/d	
Revenues	761	725	4,799	4,678	121	2.6	2.6
EBITDA	385	364	2,429	2,336	93	4.0	3.4
% of Revenues	*50.6*	*49.9*	*50.6*	*49.9*		*0.7 pp*	*0.4pp*
EBIT	158	156	999	974	25	2.6	1.3
% of Revenues	*20.8*	*20.8*	*20.8*	*20.8*		*0.0pp*	*(0.3)pp*

	2021	2020
Lines at period end (thousands) (*)	52,066	51,433
MOU (minutes/month) (**)	104.9	122.7
ARPU (reais)	26.4	24.9

(*) Includes corporate lines.
(**) Net of visitors.

The **Brazil Business Unit (TIM Brasil group)** provides mobile services using UMTS, GSM and LTE technologies. Moreover, the Tim Brasil group offers fiber optic data transmission using full IP technology, such as DWDM and MPLS and residential broadband services.

Offer for the purchase of the OI group mobile business

In December 2020, TIM announced that the offer presented by TIM S.A. (the operating company of the TIM Brasil Group) together with Telefônica Brasil S.A. (VIVO) and Claro S.A., had been awarded the contract in the competitive sale process for the purchase of the Oi group's mobile business. The transaction is subject to the fulfillment of certain conditions precedent provided for in the agreements and the authorizations of the competent Authorities. Closing is expected during the early months of 2022.

The total value of the transaction amounts to 16.5 billion reais, which is summed with the consideration offered to the Oi Group, of approximately 819 million reais, as net present value (NPV) for the Take-or-Pay Data Transmission Capacity Contracts. TIM Brasil will participate in the transaction with an investment of approximately 7.3 billion reais, to be paid at closing, and 476 million reais relating to TIM Brasil's share of the net present value (NPV) of the contracts. Given the low debt and the favorable market conditions, TIM S.A. believes it can finance the acquisition through cash and the local debt market. However, in the event of any changes in market conditions, TIM S.A. will evaluate all available options.

The purchase plan provides for TIM Brasil, Telefônica Brasil and Claro to divide up Oi's mobile assets and, in particular, its customers, radio frequencies and mobile access infrastructure.

More specifically, TIM Brasil will be allocated:

- approximately 14.5 million customers (corresponding to 40% of UPI Ativos Móveis' total customer base), according to Anatel's data of April 2020. The allocation took into consideration criteria that favor competition among the operators present in the Brazilian market;

- approximately 49 MHz as a national average weighted by population (54% of UPI Ativos Móveis radio frequencies). The division of frequencies strictly respects the spectrum limits per group established by Anatel;
- approximately 7.2 thousand mobile access sites (corresponding to 49% of total UPI Ativos Móveis sites).

On February 09, 2022, the offer presented by TIM S.A. together with Telefônica Brasil S.A. (VIVO) and Claro S.A., was approved by the antitrust authority CADE (Conselho Administrativo de Defesa Economica).

The decision follows the pronunciation of the reglementary Authority Anatel (Agência Nacional de Telecomunicações), which on February 1, 2022, had expressed itself in favor of the transfer of control of Oi's mobile assets.

The closing of the deal, which will define a new infrastructure structure for the Telco market in Brazil, still depends on the fulfillment of specific conditions foreseen in the Sale and Purchase Agreement. The operation, with which TIM Brasil will acquire the most relevant share of the assets of the Oi Group, is expected to bring significant benefits to the Brazilian TLC sector, maintaining a high degree of competition and ensuring the necessary investments for the development of the country's digital advancement.

The transaction, as of its completion, will add value not only to its Brazilian subsidiary but to the whole TIM Group and its shareholders as it will accelerate its growth and increase operating efficiency through relevant synergies. Furthermore, positive effects are also expected for customers, as the transaction is likely to improve the users' experience and the quality of services offered. Finally, the transaction is expected to benefit the entire telecommunications sector in Brazil, which will be strengthened in its investment capacity, technological innovation, as well as its competitiveness.

Agreement with IHS for shareholding in FiberCo

In November 2021, once the regulatory authorization process had been completed, the agreement was stipulated between TIM S.A. and IHS Fiber Brasil - Cessão de Infraestruturas Ltda. ("IHS Brasil"), in order to acquire an equity stake in FiberCo Soluções de Infraestrutura S.A. ("FiberCo"), a company established by TIM S.A. for the segregation of network assets and the provision of infrastructure services.

Following the operation closing, IHS Brasil holds 51% of the share capital of FiberCo, with the remaining 49% is held by TIM S.A.. At the same time, FiberCo was renamed I-Systems.

Shareholder relations are governed by a shareholders' agreement.

The operation was worth 1.68 billion reais, divided up into a primary component of 0.58 billion reais, for the treasury of I-Systems, and a secondary component of 1.10 billion reais, paid to TIM S.A.. The enterprise value of I-Systems was established at 2.71 billion reais and the equity value, after the contribution of the primary component, was set at 3.29 billion reais. The operation also considers possible additional earnings deriving from an earn-out component.

In addition, under the scope of the Operation, TIM and I-Systems have stipulated an agreement to develop the Fiber-to-the-Site (FTTS) infrastructure to connect TIM sites in the areas in which FiberCo will be developing the new infrastructure granting access to fiber optic broadband.

Revenues

Revenues for 2021 **of the Brazil Business Unit (TIM Brasil group)** amounted to 18,058 million reais (17,268 million reais in 2020, +4,6%), speeding up on the levels recorded from the third quarter of 2020.

The acceleration has been driven by **service revenues** (17,497 million reais vs 16,665 million reais in 2020, +5.0%) with mobile service revenues growing +4.7% on 2020. This performance is mainly related to the continuous recovery of the pre-paid and post-paid segments. Revenues from fixed services have grown by 8.8% compared to the previous year, determined above all by the growth rate of TIM Live.

Revenues from product sales totaled 561 million reais (603 million reais in 2020).

Revenues in Q4 2021 totaled 4,799 million reais, increased by 2.6% on the fourth quarter of 2020 (4,678 million reais).

The **mobile ARPU** for 2021 was 26.4 reais, up from the figure recorded in 2020 (24.9 reais) thanks to general repositioning in the post-paid segment and new commercial initiatives intended to promote the use of data and average expenditure per customer.

Total mobile lines in place at December 31, 2021 amounted to 52.1 million, +0.7 million compared to December 31, 2020 (51.4 million). This variation was mainly driven by the postpaid segment (+1.0 million), partially offset by the performance in the prepaid segment (-0.3 million), in part due to the consolidation underway in the market for second SIM cards. Post-paid customers represented 43.9% of the customer base as of December 31, 2021, 1.5 percentage points higher than at December 2020 (42.4%).

The TIM Live BroadBand business recorded net positive growth in 2021 in the customer base of 40 thousand users, +6.1% on December 31, 2020. In addition, the customer base continues to be concentrated on high-speed connections, with more than 50% exceeding 100Mbps.

EBITDA

EBITDA in 2021 was 8,661 million reais (8,282 million reais in 2020, +4.6%) and the margin on revenues was stable at 48.0%.

EBITDA in 2021 reflects the non-recurring charges of 36 million reais (27 million euros in 2020), mainly related to the development of non-recurring projects.

Organic EBITDA, net of the non-recurring items, increased by 4.7% and was calculated as follows:

(million Brazilian reais)	2021	2020	Changes	
			absolute	%
EBITDA	8,661	8,282	379	4.6
Non-recurring expenses/(income)	36	27	9	
ORGANIC EBITDA - excluding non-recurring items	8,697	8,309	388	4.7

The increase of EBITDA is due to the increase in revenue and cost control efficiency.

The relative margin on revenues, in organic terms, comes to 48.2% (48.1% in 2020).

EBITDA for the fourth quarter of 2021, amounted to 2,429 million reais, up 4.0% compared to the fourth quarter of 2020 (2,336 million reais).

Net of non-recurring charges, the margin on revenues for the fourth quarter of 2021 was 50.9% (50.5% in the fourth quarter of 2020).

The changes in the main cost items are shown below:

	(million euros)		(million Brazilian reais)		
	2021 (a)	2020 (b)	2021 (c)	2020 (d)	Changes (c-d)
Acquisition of goods and services	1,037	1,070	6,592	6,298	294
Employee benefits expenses	237	236	1,506	1,392	114
Other operating expenses	282	318	1,798	1,874	(76)
Change in inventories	7	(8)	44	(43)	87

EBIT

EBIT for 2021 was 3,010 million reais (2,801 million reais in 2020 +7.5%).

Organic EBIT, net of the non-recurring items, in 2021 amounted to 3,046 million reais (2,828 million reais in 2020), with a margin on revenues of 16.9% (16.4% in 2020).

Organic EBIT, net of the non-recurring items, is calculated as follows:

(million Brazilian reais)	2021	2020	Changes	
			absolute	%
EBIT	3,010	2,801	209	7.5
Non-recurring expenses/(income)	36	27	9	
ORGANIC EBIT - excluding non-recurring items	3,046	2,828	218	7.7

The EBIT of the first quarter of 2021 totaled 999 million reais (974 million reais in the fourth quarter of 2020).

Net of non-recurring charges, the margin on revenues for the fourth quarter of 2021 was 21.1% (21.4% in the fourth quarter of 2020).

MAIN COMMERCIAL DEVELOPMENTS

Domestic

Consumer

TIM is driving the country's digital revolution, continuing to invest in innovation through the development of fixed and mobile ultrabroadband networks, platforms and highly customized quality services to satisfy customer needs for the home, education, work and leisure. TIM is increasingly committed to spreading a digital culture, offering innovative, flexible and convergent products that boast not only the best fixed and mobile connectivity but also a complete range of multimedia content, with films, TV series, sport, music, video games and major events, delivered through decoders, smart TVs, the Web and mobile apps, as well as smart home solutions and services.

As part of its convergence development, TIM has continued to pursue its **TIM Unica** offer, which encompasses fixed, mobile, content and smart home and introduces a series of benefits for the family network. The cornerstone becomes the home's Fiber connection and the possibility for the customer to charge all the family's SIMs to the fixed line's bill as a single payment instrument, thus enjoying unlimited GB for all the smartphones of the components. The domiciliation of the bill, the common means of payment, the clarity and transparency of the monthly expense for family communications make TIM Unica a priority tool for retention and churn rate reduction. The advantages for customers joining the TIM Unica world are enriched over time: in 2021, **the restriction of co-holding was overcome** between the fixed line and the first mobile line, the **commercial promotions** dedicated to the family network were extended, including **new segments** (over 60), free access to the TIM My Health insurance/health care policies, new **geo-localized** promotions and, in December, a **contest** for customers registered with TIM Party, with top-of-the-range mobile products up for grabs.

In 2021, TIM was confirmed as leader in the innovation and development of new generation networks and services, launching, by way of experimentation, the **Magnifica offer**, which offers ultrabroadband FTTH fiber optic connections on an XGS-PON network with speeds of up to 10Gbps in download and 2Gbps in upload. Thanks to the technological solution TS+, present in the Executive and Magnifica offers, TIM guarantees a powerful, stable, secure connection throughout the home, thanks to the WiFi6 combined with the certification of TIM technicians, the "WiFi Plus" service and the "Safe Web Plus" service, also extended to all family SIMs. Magnifica also includes dedicated assistance with priority access to the 187 customer service and TIM stores.

As part of the roll-out of Fiber in Italy, TIM has continued to offer its customers the offer dedicated to the broadband plan, using the funds made available by the government for low-income families (Phase 1 was completed early November), through the **TIM Super Voucher** offer, which envisages a 500-euro bonus for connectivity and the purchase of a product, PC or tablet exclusively on the market offered by TIM.

TIM has continued to preside the market also with FWA technology, with the **TIM Super FWA** offer, with strengthened connection performance for the basic version up to 40 Megabyte download and 4 Megabyte upload, even in areas (e.g. White Areas) without Fiber coverage. In 2021, the offer was enhanced to also include the Super speed option up to 100 Megabytes download and 50 Megabytes upload (available according to specific coverage ad only in Modem Outdoor mode) and the **TIM FWA Rechargeable Limited Edition** offer was launched, with 6 months' browsing included, aimed at meeting the needs of specific market segments, such as second homes, smart working, students and ethnic groups.

Again with a view to taking ultrabroadband connections to the more remote, isolated areas of the country, in 2021, TIM signed a **multi-year agreement with Eutelsat**, world leaders in the satellite sector, for the exclusive marketing for Italy of satellite UBB connections. After an initial trial phase, starting October, the **TIM Super SAT** offer, later renamed **Premium SAT**, was launched for private customers, enabling a connection with speeds of up to 100 Mbps download and 5 Mbps upload and envisaging the supply of a satellite terminal with home installation by a specialized engineer.

Throughout 2021, TIM continued to support the adoption of new fiber technology with offers for ADSL customers already covered by the FTTCab and FTTH service to upgrade to the new technology without additional costs and leveraging on new offer content different to that of the market and, in particular, on the **TIM Per TE Casa** offer, dedicated to the Customer Base.

The important drive on **content through close strategic partnerships** with major players in entertainment and with players holding sports and football rights, in particular Serie A TIM and UEFA Champions League, plays a decisive role in supporting TIM's positioning. The assignment of Serie A TIM rights for the three years 2021-2024, has led to a discontinuity of market and technology in Italy: **DAZN has acquired the rights to broadcast the Serie A TIM matches** (of which 7 out of 10 exclusive), laying the foundation for an all-streaming use as compared with the previous situation, wherein Sky was the clear leader, distributing contents by satellite and digital terrestrial television.

TIM has signed an exclusive distribution agreement with DAZN, thereby becoming its key technological partner, to guarantee optimal vision of the championship on the broadband network, with the possibility of marketing football offers and, at the same time, optimizing the TIMVISION brand.

TIMVISION is today the main aggregator of sports and entertainment content with the most complete and competitive offer on the Italian television market, also thanks to its partnerships with the main operators of the national and international market and a great many original new productions. The proprietary offer has been strengthened through the expansion of the entertainment catalog with Discovery+ contents (January 2021) and the major sports events shown by Eurosport Player and, thanks to the agreement signed with Sony Pictures, the cinema section has added more than 80 films, many of which available for the first time on television; TV series are shown exclusively along with a great many original new productions (e.g. Fantacalcio).

The commercial strategy has thus focused on the bundle offers between the proprietary TIMVISION offer and the partners' services, always including the TIMVISION Box decoder as the main device on which to guarantee the best user experience for our customers. To best support the new offers, a new TIMVISION Box has been launched, an Android TV 10 operating system, compatible with standard latest-generation DVB-T2 digital terrestrial, WiFi6, Bluetooth remote control with contents search by voice control, 4K and many other advanced multimedia functions.

Alongside the offers already available with the services of the partners **Disney+** and **Netflix**, in July 2021, the new **TIMVISION Calcio e Sport** offer was launched, offering, as a single package, all the entertainment of TIMVISION and the best sports contents with all Serie A TIM on **DAZN**, 104 UEFA Champions League matches per season on **Infinity+** and thousands of films, TV series and cartoons, thanks to a multi-year agreement for the non-exclusive distribution of the Mediaset Infinity app (included for 12 months).

Customers interested in having a complete offer of all contents have been offered **TIMVISION Gold**, which combines the new Calcio e Sport (Football and Sport) package with unlimited entertainment for all tastes, including series and films for adults, on Disney+ and original series, films, cartoons and much more besides, on Netflix. TIMVISION Box is always included in the new offers.

December 2021 saw the unveiling to the market of the **TIMVISION Box Atmosphere**, Premium version of the TIMVISION Box, developed in collaboration with Sagemcom. The new decoder presents 4K HDR, Audio by Bang & Olufsen and integrated Dolby Atmos, for an even more immersive, engaging viewing and listening experience.

In November 2021, we strengthened the **TIM Gaming** offer, proposing the sale of Microsoft Console Games.

TIMMUSIC completes the Entertainment offers, on sale in bundles with the mobile offers TIM YOUNG and TIM SUPER and with certain data offers and on fixed target, in stand-alone mode. The service is also an opportunity to engage TIMVISION customers who find the application pre-installed on the TIMVISION Box.

In 2021, the partnership with Google continued, spreading awareness of the voice assistant products for the smart home. In addition to the launch of second-generation voice assistants in July 2021, at the start of the year, use of TIMVISION services was also integrated through the Google Nest Hub products, with the introduction of second screen in hands-free mode of TIM contents.

For **Mobile**, in 2021 TIM continued to support the development of ultrabroadband, consolidating **4G/4.5G** and developing **5G**. On a national level, **4G** technology has now reached more than **7,800** municipalities, covering over **99%** of the population, while the spread of **4.5G** (LTE Advanced technology) has continued in the major Italian cities, enabling data connection speeds of up to 700 Megabits per second to be achieved.

TIM's technological leadership was confirmed with the further development of the 5G network, already available in the major Italian cities with speeds of up to 2 Gigabytes per second; 5G is fundamental for the innovation of mobile services that can revolutionize the lives of citizens, consumers and businesses alike, steering the country towards a dimension in which everything is smarter and more connected: from public safety to transport, from environmental monitoring to health, tourism and culture, and even applications for media, education and virtual reality.

Technological leadership means a competitive edge for TIM, which is fundamental for making its mark in a highly competitive market. Exploiting the distinctive quality of the network, TIM has been able to continue its "value" strategy, maintaining a premium position on the market, confirmed by some **important "firsts" achieved by the TIM network**, certified by Ookla and Opelsignal.

TIM's smartphone portfolio has also expanded further to **5G** technology, in 2021 making up more than two thirds of references, thanks to the introduction of 5G on all high and medium range products and the achievement of public price points lower than 200 euros.

In addition, in order to guarantee a distinctive position, TIM has launched and consolidated new digital services, such as: TIM PEC, SPID, cloud service in a partnership with Google, TIM One Number, Smart mobility and TIM MyBroker.

Another essential aspect of its business strategy was customer retention, with the focus on limiting churn rates and stabilizing customer spending. From this standpoint, new offers have been launched with content benefits and discounted fees for customers choosing direct debit or credit card debit as their payment method and upselling, cross selling and churn prevention actions continued, increasingly personalized thanks to the use of Big Data Analytics. In addition, the **TIM Party** loyalty program, accessible on line only and intended for all fixed and mobile TIM customers, has been enhanced with new initiatives, such as the **Party della Domenica** and the **Party Collection**, a badge collection program with a final prize draw.

For the whole of 2021, TIM has continued its great commitment alongside schools to support distance learning during the Coronavirus emergency, continuing with the "**E-learning Card**" dedicated to all mobile customers, in order to offer teachers and students the possibility of browsing without traffic limits on the main distance learning platforms without using up their data.

Thanks to the partnership between TIM and Santander Consumer Bank S.p.A. for the offer of a consumer credit platform dedicated to TIM's customers (through the Joint Venture **TIMFin**), TIM has successfully optimized its management of working capital and improved its credit risk management. Starting May 2021, TIM Mobile customers can buy products with payments by installments simply by activating a loan with TIMFin, as well as being able to access personalized, transparent financial and insurance solutions.

TIM confirms its attention paid to the environmental impact with various initiatives, such as the **sale of regenerated smartphones**, enriched this year with the inclusion on the price list of new models (iPhone), exclusively Class A +, to guarantee the end customer top quality (only original spare parts) but minimizing accessories and packaging materials, as well as marketing "half card" SIMs (half the normal SIM card) and using recycled plastic for card carriers, thereby saving approximately 14 tons of plastic a year. Finally, the "TIM Next" loyalty program continues, offering customers the chance to replace their smartphones with a new model, at the same time encouraging the collection and recycling of used smartphones, which are thus inserted into a correct regeneration cycle.

Small Medium Business

On the Small Medium Business segment, TIM has strengthened its strategy of developing value, purchase volumes and customer base loyalty, through the following actions implemented in 2021:

- **Launch of the new Magnifica portfolio** aimed at both consolidating TIM's technological leadership and creating an offer grading that optimizes market demands. The range of professional connectivity offers, both Internet and MPLS, has increased, with a specific focus on reducing the digital divide in companies;
- **Relaunch of the positioning** in the SMB sector **with the new marketing campaign** centered on quality, assistance and convergent offers enriched with the inclusion of ICT services designed to meet the specific vertical needs of Horeca, Retail and Professionals, to complete the BB offer;
- **Strengthening of the commercial strategy, focusing on TIM Unica Business** as the driving force of value and loyalty;
- **Push on the driver of innovation, exploiting the quality of the TIM network**, optimizing the "firsts" in coverage and 5G speed recognized by Ookla and OpenSignal on the mobile and the spread of FTTH technology for fixed lines;
- **Expansion of the ICT offer** through advanced connectivity solutions (VoIP) and partnerships with major market players, such as Microsoft: with Teams combined with VoIP trunking solutions dedicated to the medium segment;
- **Development of upselling on customer base of core services** (additional giga) and evolution of segmentation with **evolved analytics (personas) to start the growth path on IT services**;
- **Completion of the TIM Comunica portfolio with solutions also intended for low-range customers, such as TIM Comunica Senza Limiti**, which can supply VoIP in an OTT logic, as well as high-range professional connectivity, also combining with Microsoft Teams;
- **Launch of SAT with guaranteed bandwidth and Fiber To The Office** with a dedicated bandwidth compatible with the TIM Comunica portfolio;
- **Reinforcement of commercial oversight of the most valuable customers** with an increase in the number of customers managed in the caring portfolio and development of a dedicated caring model;
- **Consolidation of the stores channel** as a commercial Touch Point for VAT-registered small traders;
- **Development** of specific contents for the **TIM Business digital channel** in order to increase the acquisitions of solutions for fixed, mobile and ICT offer for the Soho market. Development of on-line services dedicated to customers on apps and the web;
- Greater attention to **administrative and commercial management actions for customers with bad debt**, with the support of predictive analytics and dedicated campaigns.

As regards the ICT offer, consolidation continued of the four areas that cover the main needs of the segment, starting from Information Security, Smart Working, Internet Presence and the Cloud, intended as computing capacity as well as storage, data backup and the adoption of SaaS solutions, through an analysis of the extensive ICT offer portfolio, with a selection of the best solutions on which to focus commercial drives, a simplification of the sales process and a focus of the communication activity.

In addition, **with the internal factories Olivetti, Noovle and Telsy, a review of the services portfolio was initiated to adapt them to the needs of the segment, with particular reference to the IoT offers**, first and foremost for solutions in line with requirements to access 4.0 incentives (Way Agritrack offer), to the cloud and to the development of professional services designed for SMB customers through to the identification of security solutions with which to extend the portfolio.

There are a great many **commercial actions driving the technological upgrade**: in addition to strengthening campaigns on customer base, **local crashes have been implemented in Apulia and Friuli Venezia Giulia, as well as specific campaigns on industrial districts**.

In order to improve customer satisfaction, the **plan to improve the customer experience** has been strengthened, in particular on **billing**, with the development of new functions and on direct debt with improved processes and commercial benefits for those opting for this payment method; **technical assistance**, with the use of hybrid routers for long faults and new management for high value customers; **commercial assistance** with new customer segmentation in order to guarantee a level of service consistent with the needs and value of the customers.

In 2021, there was a further drive on the **development of the digital channels** dedicated to small and medium business customers, through:

- **Strengthening information areas** and contents with the development of a digital content strategy on the offer and ICT services through blogs and social networks to increase interest and traffic towards offers and generate leads for the SME sales channel.
- **Improving the e-commerce function** available to customers through the evolution of on-line purchasing processes of the TIM Business website.
- Strengthening of **Self-caring** and **Self-provisioning services available to customers**, with the May 2021 release of the new TIM Business customer area, accessible from PCs and smartphones. As regards human commercial channels, in 2021 the **optimization and consolidation of agencies on core acquisitions** continued. The **overseeing and development of higher value customers** has been directed more productively and **growth of the store channel** has continued. Commissioning policies were directed toward higher quality activations, the promotion of convergence and new IT services.

In 2021, **TIM acquired the Italian business units of BT**, which offer services to the public administration and Small & Medium Businesses (SMBs): as regards the SMB world, TIM has successfully incorporated the CB, guaranteeing complete continuity of supply and billing of active connectivity, telephone and ICT services and dedicated specific customer care to SMB customers switching from BT to TIM.

Enterprise

Again for 2021, TIM confirms its leadership role on the market of private enterprises and the public administration and continues to focus on the ICT market, through the extension of the portfolio of services offered with an increasing drive on the needs of vertical sectors **and the reorganization of internal business units** (Noovle, Telsy, Olivetti) to better oversee the cloud, cyber security and Internet of Things (IoT) markets.

In addition, in order to direct the ever more diversified market needs, **in 2021, the sales team was reorganized according to a model focused on managing the main industries and goods sectors**, through dedicated organizational departments with specialized vertical skills able to support private and public customers in the evolution of their business processes. In this way, the Group assures the capacity to best oversee both the fixed connectivity, mobile and 5G components and the horizontal cloud, security and IoT solutions and platforms, as well as vertical end-to-end projects for smart cities, the industrial manufacturing and agricultural industrial world, retail or finance & insurance.

2021 saw the consolidation and deployment of the strategic partnership with Google, also through the creation of Noovle S.p.A., which positions itself as the first Italian cloud enabler, thanks to the conferral of the TIM Group data centers to it, and the skills in the professional services of the cloud company Noovle s.r.l., acquired in 2020. The project is based on the integration of two leaders of their respective markets (Google and TIM) and on the natural complementary nature of the two companies in terms of assets and competences, with a route that also involves the development of 6 new highly-efficient, environmentally-sustainable data centers, an unprecedented investment on the part of Google in our country, thanks to which customers will benefit from low latency and high performance cloud services and data.

Thanks to Noovle S.p.A., TIM has the very best infrastructure, skills and platforms to create innovative public, private and hybrid cloud services for the benefit of businesses and public administrations.

One of the first results achieved by the partnership is the signing of a strategic agreement with the Intesa Sanpaolo Group on which basis the Bank will migrate a significant portion of its computer system to Google's cloud services, which will meet the highest international safety and information confidentiality standards, based on TIM's Italian data centers in Milan and Turin. The partnership has made it possible to stipulate other important commercial agreements with major Italian (such as, for example, A2A) and international (like the OCRE - Open Clouds for Research Environments project) operators, through Telecom Italia Sparkle.

The inorganic leverage has also been used by TIM to foster the positioning on the traditional market, with favorable authorizations of AGCM (the Italian Competition Authority), AGCOM and Consip and the closing, on June 30, 2021, of the acquisition of the private small and medium business and public administration branches of BT Italia, upon completion of a process started with the December 2020 signing. The operation has allowed TIM to become the leading player on the national and international fixed connectivity data market for central and local public administrations, through the SPC connectivity and S-RIPA agreement, and the reference interlocutor for major administrations, such as the Ministry of Justice.

As regards the market, **the continued health emergency in 2021 has confirmed the need and appropriateness of speeding up the digitization** of the processes for both private customers and the public administrations, not only as a management tool of business continuity during the emergency, but also as leverage to transform the organizational and production models, with a consequent growing demand for connectivity and above all for digital services by the companies, accompanied by the progressive finalization by the government of tools and funds to facilitate the process.

In this area, TIM immediately focused the opportunity offered by the PNRR, both in terms of support to investments to speed up the spread of digital technologies and as regards the stimulation of demand, in respect of technology towards digitization and sustainability, starting from the Transition 4.0 programs and the mechanization of the agriculture sector, with the programs already in the field and, also thanks to training, development and dissemination, including through the 5 MED Industry 4.0 competence centers (CIM 4.0, SMACT, BiREX, Cyber 4.0, Meditech) and other public-private partnership initiatives such as the Federated Innovation @MIND or Riccagioia Foundation, in which TIM is the lead player for innovating in vertical sectors through ICT technology.

Under the same part of the PNRR, thanks to the better technologies and competences and the partnership with important national champions, **TIM has earned itself a leading role in the creation of the National Strategic Hub (NSH)**, through a public-private partnership proposal that has led the MITD to choose it as reference base for a competition that will take place in 2022.

Finally, 2021 saw a growing adoption by the market of innovative solutions aimed at improving the quality of life of employees and citizens and the main business processes, from the supply chain to logistics. The main projects include the Venice smart control room, the first major example of the implementation of a smart city model that integrates field technologies with artificial intelligence at the service of the management of a city and the development of the first private 5G networks for companies, which find the first cases of application of 5G technology to the factory and production context in BI-REX and Exor International.

With regards to **5G**, TIM has also started trials of a solution dedicated to smart mobility, tested at the TIM Innovation Lab in Rome, which is based on the use of an autonomous-drive shuttle produced by Navya, integrated with the applications of the **Smart Mobility** and **Smart City** platforms and TIM's latest generation 5G network technology. The strategic nature of smart mobility is confirmed by an additional development project started in 2021, with the BreBeMi motorway and other industrial automotive and energy partners, relating to the trials supported by 5G of an innovative dynamic charging system for electric vehicles while on the move.

The competence of the TIM Group on the whole scope of ICT services for businesses and public administrations has led to major commercial successes also on the area of **cyber security**, such as the award to TIM, as representative of a temporary association of companies with other prestigious specialist partners, of three tenders for the supply of professional cyber security services and solutions to the central and peripheral public administrations.

TIM is confirmed once again as a lead technological player for businesses and the country system, not only for the offer of advanced technological solutions on all segments, but also for its capacity to adopt innovative cooperation models that can make the most of the opportunities offered up by digital transformation and synergies with companies and entities of other strategic sectors for the country's economy. In this respect, the route constructed with the Archaeological Park of Pompeii and the Ministry for Culture is particularly important, having led to the stipulation of a partnership agreement in October 2021, under the scope of which TIM coordinated the event celebrating the fiftieth anniversary of the live concert by Pink Floyd in Pompeii, developing a single worldwide multimedia event streamed live from the amphitheater of Pompeii.

Brazil

In 2021, we continued to develop and execute our Volume-to-Value strategy, transforming the profile of our mobile customer base by leveraging plan upgrades and segment migration initiatives. Consequently, the company was able to sustain a solid ARPU growth in mobile despite the macroeconomic challenges. On the fixed, our focus remained on residential broadband through FTTH, which led to the creation of a infrastructure vehicle to accelerate the roll-out of our fiber coverage. Additionally, our non-core initiatives, both in IoT and digital services, grew in number of partnerships and contribution to our results.

- **Marketing and brand positioning**: we consolidated the credibility of our brand, and maintained our position of the best and wider 4G coverage while reinforcing the innovation attribute through the launch of 5G pilots. We started to recover the brand association with music theme using our mobile offers and sponsorships. In December 2021, the most important sponsorship under this new strategy was announced, the 2022 edition of the Rock in Rio festival. We also developed many initiatives to solidify our institutional positioning as a ESG leader among the Brazilian companies.
- **Mobile offers**: To accelerate growth beyond connectivity we continue scale up partnerships leveraging our user base and key assets to expand new businesses. For the prepaid segment, we develop differentiated offers, giving more benefits to customers with high recharge value and we consolidated TIM+Vantagens, a benefits program to retain our customers through prizes such as Internet bonuses, discounts with partners, smartphones and other prizes. Reinforcing our music theme engagement we became the only Brazilian telecommunications company to offer prepaid customers a free and ad-free music streaming service: DeezerGo. And finally, on the post-paid segment, we maintained our effort to consolidate our position as an innovator, by developing "TIM Black" to have a broader portfolio of entertainment services using OTT partnerships and premium care services, such as TIM Concierge.
- **Customer Experience** we are constantly working to improve our customer experience and satisfaction through the use of technology. In this regard, the evolution of AI solutions and our digital channels are key. In the 2021 Satisfaction and Quality survey of Anatel (National Telecommunication Agency) TIM Brasil received the best evaluations by customers, driving the company to the first place in the mobile services ranking. The quality of our network was also recognized by Ookla Speedtest ranking, as TIM was appointed the best video and video conference experience while having the highest 4G availability.
- **Sales channels**: we maintained our focus on channel productivity, segmentation, and quality of sales. During 2021, we remodeled our digital channels while reorganizing our structure to increase focus on e-commerce and in-app purchases.
- **Residential market**: the focus on investing in FTTH (Fiber To The Home) expansion continued, with high-speed offers and optimal connection stability. We created an infrastructure vehicle to accelerate the expansion and development of our fiber coverage. We segregated our last-mile network and created a neutral player in a partnership with IHS Towers. This company will provide FTTH infrastructure to TIM Brasil as an anchor customer and to other operators. In this transaction, TIM Brasil sold 51% of the company to IHS under a valuation of 2.7 billion Reais, with a secondary component of 1.1 billion Reais.
- **Corporate**: we consolidated our "Leaders with Leaders" strategy in agribusiness and launched the first IoT marketplace for B2B in Brazil by promoting IoT solutions through partnerships. In addition, we launched the FCA partnership for connected cars and for industry and mining we are developing a private LTE solution for business-critical use case management. In 2021, reinforcing the partnership with Embrapa, the main agent of innovation and research in agribusiness in Brazil and the world, TIM became partner of Embrapa in the development of the newest innovation hub dedicated to agribusiness.

MAIN CHANGES IN THE REGULATORY FRAMEWORK

Domestic

In this section we report the main changes in the regulatory framework in 2021 in the Domestic region.

As regards the Antitrust proceedings, as well as the proceedings regarding the 28-day invoicing, see the Note "Disputes and pending legal actions, other information, commitments and guarantees" in the TIM Group Consolidated Financial Statements at December 31, 2021.

European regulations

European Commission Delegated Regulation on fixed and mobile termination of voice calls

On April 22, 2021, Delegated Regulation (EU) 2021/654 of December 18, 2020 concerning the setting of maximum voice termination rates (fixed and mobile) at EU level, as required by the new Code, was published in the Official EU Journal. European caps (EU maximum prices) on termination rates are applied to operators providing fixed and mobile termination services (replacing the prices set by national regulators) from July 1, 2021.

The maximum EU fixed termination price is 0.07 eurocents/min.

The maximum EU mobile termination price is 0.2 eurocents/min.

In order to allow for a gradual transition of the price of mobile termination to the European cap, a three-year glide path is applied with the following values for Italy: 0.67 eurocents/min in 2021, 0.55 eurocents/min in 2022 and 0.40 eurocents/min in 2023, landing at 0.2 eurocents/min in 2024.

Under certain conditions, which should in principle guarantee price reciprocity, these caps also apply to the termination of calls originating outside the EU.

Intra-European roaming regulation

Following the proposal made by the European Commission on the new roaming regulation of February 2021, on December 08, 2021 a political agreement was reached by the European institutions on the new rules that will extend the benefits of roaming at national tariffs to European travelers within the European Union through to 2032 and introduce additional consumer protection and advantages:

- quality of service: roaming providers will be obliged to offer the same quality of service in roaming as is available nationally, if the same conditions are available on the network in the destination country;
- better access to and free emergency services;
- greater transparency regarding costs of added-value services;
- greater transparency regarding the costs of roaming on non-terrestrial mobile networks (ships and aircraft).

In addition, a further reduction is envisaged of the wholesale maximums to guarantee sustainability for operators:

		2022	2023	2024	2025	2026	2027
voice	€cent/min	2.2	2.2	2.2	1.9	1.9	1.9
SMS	€cent/SMS	0.4	0.4	0.4	0.3	0.3	0.3
data	€cent/GB	2	1.8	1.55	1.3	1.1	1

The European Commission should also assess the measures relating to intra-EU communication (calls and SMSs from one's own country to another Member State) and verify if, and to what extent, the maximums should be reduced to protect consumers after 2024.

Once the final formal steps have been completed for adoption of the regulation by the European Parliament and Council, the new rules will come into force on July 1, 2022.

2030 Policy Program "Path to the Digital Decade"

On March 09, 2021, the European Commission adopted Communication COM(2021) 118 final setting out the following digital objectives through to 2030 (the "Digital Compass" Communication) :

- A digitally skilled population and highly skilled digital professionals:
  - 20 million employed ICT specialists within the EU, with convergence between women and men (i.e. an increase in the number of women employed in the industry);
  - 80% of the adult population with at least basic digital skills.
- Secure and performant sustainable digital infrastructures:
  - all European households will be covered by a Gigabit network, with all populated areas covered by 5G;
  - the production of cutting-edge and sustainable semiconductors in Europe including processors is at least 20% of world production in value;

- 10,000 climate neutral highly secure edge nodes are deployed in the EU, distributed in a way that will guarantee access to data services with low latency (few milliseconds) wherever businesses are located;
- by 2025, Europe will have its first computer with quantum acceleration paving the way for Europe to be at the cutting edge of quantum capabilities by 2030.

- Digital transformation of business:
  - 75% of European enterprises have taken up cloud computing services, big data and artificial intelligence;
  - more than 90% of European SMEs reach at least a basic level of digital intensity;
  - Europe will grow the pipeline of its innovative scale ups and improve their access to finance, leading to doubling the number of unicorns (start-ups worth 1 billion dollars) in Europe.
- Digitalization of public services:
  - 100% online provision of key public services available for European citizens and businesses;
  - 100% of European citizens have access to medical records (e-records);
  - 80% of citizens will use a digital ID solution (eID).

On September 15, 2021, the European Commission published the legislative proposal regarding the 2030 Policy Program "Path to the Digital Decade", which confirms the targets of the Digital Compass Communication and provides for an annual cooperation mechanism with the Member States, which consists of:

- a structured, transparent, shared monitoring system based on the Digital Economy and Society Index (DESI) to measure progress made towards each of the 2030 objectives (including KPIs);
- an annual report on the status of the digital decade, in which the Commission will assess progress and recommend actions;
- strategic multi-annual roadmaps on the digital decade for each Member State, in which to indicate the policies adopted or planned and the measures implemented in support of the 2030 objectives;
- an annual structured framework to discuss and manage the areas with insufficient progress through recommendations and commitments shared between the Commission and the Member States;
- a mechanism by which to support the implementation of multi-country projects.

Wholesale fixed-line markets

Fixed network access market analysis

The final provision published on August 8, 2019 defines the obligations and economic conditions for wholesale access services for the period 2018-2021.

The main decisions relate to:

- repeal of TIM's qualification as an operator with Significant Market Power (SPM) in the access market – and, consequently, repeal of all *ex-ante* regulatory obligations – in the municipality of Milan and confirmation of SPM operator qualification for the rest of the National territory;
- repeal of the obligation to guide the cost of bitstream copper and fiber service prices in 26 municipalities considered "contestable" (list extended to 43 municipalities by resolution no. 385/21/CONS starting 2022); the possibility to apply, in the same municipalities, different VULA prices from the national average value set by the Authority starting from 2021, if certain conditions defined by the Authority are met, with resolution no. 12/21/CONS;
- gradual increase in the full unbundling price (ULL) and bitstream price on copper in the 2019-2021 period;
- sub loop unbundling (SLU) price stability in the 2019-2021 period;
- gradual decrease in fiber access prices (VULA FTTC and FTTH) and price differentiation of the bandwidth, starting in 2021, depending on whether the access line is on a copper or NGA network;
- repeal of the current prior AGCom notification obligations and verification of *ex-ante* "replicability" for flagship offers with speeds greater than or equal to 100 Mbit/s and, in other cases, reduction of prior notification period from 30 to 20 days;
- definition of the process and timing for the decommissioning of TIM exchanges;
- possibility of using vectoring in FTTC cabinets where alternative operators have not requested sub loop unbundling (SLU) lines;
- elimination of current asymmetries in procedures to change TIM network operator between processes to return to TIM and changing from TIM to alternative operators.

In November 2020, AGCom concluded the preliminary reliability assessment of TIM's voluntary separation project for the creation of FiberCop (the Newco, controlled by TIM and in which KKR Infrastructure Fund and Fastweb have an investment, which on March 31, 2021 had acquired the secondary copper and fiber access network held by TIM and Flash Fiber).

With Resolution no. 637/20/CONS, published in December 2020, the Authority initiated the procedure relating to the coordinated analysis of the markets for fixed network access services pursuant to article 50-ter of the Code and, at the same time, launched the public consultation on the project for the voluntary separation of

TIM's fixed access network, the results of which were published in October 2021, with resolution no. 253/21/CONS.

Once the first phase of consultation on the FiberCop Project is complete, AGCom shall continue its coordinated analysis with more available elements, with reference to the regulatory framework (transposition of the new European Electronic Communications Code at national level and adoption of the new Recommendation on Relevant Markets), the initial feedback received from interested parties on the project's general impact on TIM's fixed network access markets and TIM's notification of the Authority on January 29, 2021 of a co-investment offer for the development of a new fiber network in accordance with articles 76 and 79 of the New European Electronic Communications Code (EECC) so that conformity with said Art. 76 for the purpose of the deregulation of the new fiber infrastructure, is assessed.

This offer was subsequently amended and supplemented by TIM in March, April and most recently in December 2021, in light of the indications provided by the Authority in the "Preliminary conclusions" sent to TIM upon completion of the market test launched by resolution no. 110/21/CONS.

The co-investment project is open to any supplier of electronic communication services or networks and it is the first case of European co-investment on a national scale and application of the new Code.

More specifically, the project will make it possible, by April 2026, to reach a total of 9.7 million UITs (Technical Property Units), out of the 13.9 million present in 2,549 municipalities.

On January 11, 2022, AGCom published resolution 1/22/CONS, launching the public consultation, which ended on February 9, 2022, on the regulatory treatment of FiberCop's fiber network concerned by the co-investment offer.

The resolution under consultation provides for the approval of the co-investment commitments that are made binding for a period of 10 years in accordance with Art. 76 of the new European Electronic Communications Code (EECC). More specifically, TIM will be bound to these commitments and not subjected to any additional regulatory obligation on the secondary fiber network in all municipalities in which at least one co-investment agreement has been stipulated between an alternative operator and FiberCop with reference to the following services:

- semi-GPON access;
- access to the installation and dark fiber infrastructures on the secondary network;
- access to the vertical segment for termination in fiber;
- any other access service that only applies to the secondary network concerned by the co-investment.

By resolution no. 412/21/CONS (December 2021), the Authority extended the deadline for the proceedings started by resolution no. 637/20/CONS by 90 days, considering the fact that the provisions of the offer of co-investment, the related assessment by the authority as to its conformity with the provisions of Article 76 EECC and the level of adhesion to it by alternative operators in the various territorial contexts of the country, should be duly considered by the authority in the coordinated analysis that, on the basis of a provisional analysis of future market developments, will establish the level of competitiveness of the markets in question and the related regulations to be imposed.

Infratel Tenders for the subsidizing of ultrabroadband networks

The Italian Strategy for ultrabroadband - "Towards the Gigabit Society", approved on May 25, 2021 by the Inter-Ministerial Committee for the Digital Transition (CITD), defines the action necessary to achieve the digital transformation objectives indicated by the European Commission in 2016 and 2021 - respectively with the Communication on Connectivity for a European Digital Single Market (the "Gigabit Society") and the Communication on the Digital Decade (the "Digital compass"), whereby it presented the vision, objectives and procedures for achieving the digital transformation of Europe by 2030.

These European digital transformation objectives develop around 4 cornerstones: (1) digital competences; (2) the digitization of public services; (3) the digital transformation of businesses; (4) the development of secure, sustainable digital infrastructures. As regards the latter, one of the objectives set by the European Commission is to allow all EU families, by 2030, to benefit from Gigabit connectivity and ensure that all inhabited areas are covered by 5G networks.

The Italian national recovery and resilience plan (PNRR) approved by the government on April 29, 2021 allocates 27% of resources to the digital transition, of which 6.7 billion euros for strategic ultrabroadband projects, continuing on from the strategy launched by the government back in 2015.

In addition to aiming to complete the plan to cover white areas and the measures in support of the demand already launched ("vouchers"), the strategy also includes five additional public intervention plans to cover the geographic areas in which the offer of extremely high-speed digital services and infrastructures by market operators is absent or insufficient, set to be completed in the next few years.

The PNRR allocates 6.7 billion euros for ultrabroadband projects, distributed over the following plans:

- "Italia a 1 Giga" plan (3.86 billion euros);
- "Italia 5G" plan (2.02 billion euros);
  - No 4G/5G Areas (1 billion euros);
  - 5G corridors (0.6 billion euros);
  - 5G-ready suburban roads (0.42 billion euros).
- "Sanità Connessa" (Connected Healthcare) plan (0.50 billion euros);
- "Scuola Connessa" (Connected School) plan (0.26 billion euros);
- "Isole minori" (Minor Islands) plan (0.06 billion euros).

Through these measures, the government intends to bring forward to 2026 - and therefore a good 4 years - the 1 Gbit/s connectivity objectives for everyone and full 5G coverage of the populated areas fixed by the new European Digital Compass Strategy for 2030.

“Italia a 1 Giga” plan (3.86 billion euros)

The “Italia a 1 Giga” plan seeks to guarantee fixed 1 GB download and at least 200 Mbit/s in upload coverage in the gray and black areas where, until 2026, the plans of private operators cannot guarantee “reliable” connections with at least 100 Mbit/s in download.
In this context, in April 2021, Infratel Italia (the in-house company of the MED) started mapping UBB fixed coverage plans for 2021-2026 by all private operators, including FWA coverage on a total of 21.3 million gray and black addresses, as shown by the previous mapping.

The results of the fixed mapping were published on August 06, 2021.

Identifying coverage of 300 Mbit/s as the threshold for intervention, approximately 6.2 million road addresses lacking 300 Mbit/s coverage, have been identified as subject to intervention.

Following a public consultation on how to intervene, for the disbursement of public finance, bandwidths will be used with regional or multi-regional based incentive models.

In the same streaming of the “Italia a 1 Giga” Plan, on October 13, 2021, Infratel launched a complementary consultation that was completed on November 15, 2021, in relation to the update of the mapping of fixed UBB coverage of the “White areas” of the 2016 UBB Plan, which includes a total of 11.8 million addresses:

- the addresses of the UBB bandwidths awarded to the public concession-holder Open Fiber S.p.A.;
- the addresses corresponding to approximately 450,000 property units situated in remote areas (referred to as “scattered houses”), not included in the previous public intervention plans.

The purpose of the mapping is to identify the addresses present in said areas, which have been excluded from the public intervention and which will not be reached in the next 5 years (9/30/2021 - 9/30/2026) by private investments able to guarantee a download connection speed of at least 300 Mbit/s at peak times.

On the basis of the coverage plans declared by Open Fiber and private operators, 1.6 million addresses have been identified not covered by 300 Mbit/s by 2026, which will be publicly financed for the completion of the “Italia a 1 Giga” plan.

The “Italia a 1 Giga” plan was notified to the European Commission on November 8, 2021 and approved on January 27, 2022.

On January 15, 2022, Infratel published the "Italia a 1 Giga" tender for the concession of public grants for the financing of investment projects to develop new telecommunications infrastructures and the related access devices able to supply services with a capacity of at least 1 Gbit/s in download and 200 Mbit/s in upload; the deadline is set for March 16, 2022.

The addresses involved in the tender (approximately 6.9 million) have been divided up into 15 lots. Operators can be awarded up to 8 lots.

The public grant will cover up to 70% of the expenses incurred, while at least 30% will be paid by the beneficiary.

“Italia 5G” plan (2.02 billion euros)

The “Italia 5G” Plan envisages 5G coverage with 150 Mbit/s in download and at least 50 Mbit/s in upload in the following areas:

- European 5G corridors (2,645 km) -> 420 million euros;
- Suburban roads prepared for 5G (10,000 km) -> 600 million euros;
- No 5G/4G areas -> 1 billion euros.

To identify the areas to be financed, Infratel has mapped the 2021-2026 4G and 5G mobile coverage plans of private operators, including the sites’ fiber backhauling connections.

Upon completion of the consultation, the following have been identified as subject to public intervention:

- 13,200 mobile radio sites, which comprise approximately 18,600 BTSs (base transceiver stations) on which to implement fiber backhauling;
- 15% of the national territory where,however, only 1.6% of the population lives, but with important terrestrial road and rail transport routes to be covered in 5G.

These results have been submitted for public consultation through to December 15, 2021. The result of the public consultation will be communicated to the European Commission together with the methods of intervention and investor frameworks.

Tenders should be held in the second half of 2022, mainly through a public incentive model.

"Sanità Connessa” Plan

The “Sanità Connessa” plan aims to supply connectivity with symmetrical speed starting from 1 Gbit/s and up to 10Gbit/s to approximately 12,280 health care structures throughout the country.

To implement the Plan, on January 28, 2022 Infratel called a tender for the supply of ultrabroadband connectivity services at public health care structures throughout Italian territory, including the supply and installation of access networks and operation and maintenance services, with a deadline of March 15, 2022.

The tender envisages an allocation of 387 million euros and is divided up into 8 territorial lots; any individual subject can be awarded up to 4 lots.

"Scuola Connessa" Plan

The "Scuola Connessa" Plan aims to complete the 2020-2023 School Plan launched by the government on May 05, 2020, with which the supply of ultrabroadband connection was envisaged of up to 1 Gbit/¨s with 100 Mbit/s guaranteed to 35,000 school buildings (approximately 78% of the total), i.e. all buildings of the middle and secondary schools throughout the country and, in the "white areas", also the connection of all primary and nursery schools.

The 2020-2023 School Plan was run by Infratel that, from September to December 2020, organized a public consultation and posted a tender notice with public funding of 274 million euros divided up into 7 geographic lots (with a limit of two lots that can be awarded by the same bidder, who can submit bids for all lots).

On February 24, 2021, the tenders on the individual lots were awarded as follows:

- 4 lots to Fastweb comprising the following regions: Liguria, Piedmont, Lazio, Sardinia, Campania, Basilicata, Calabria and Sicily;
- 2 lots to TIM comprising the following regions: Tuscany, Veneto, Marches, Abruzzo, Molise and Apulia;
- 1 lot to Intred S.p.A.; Lombardy.

The new "Scuola Connessa" Plan aims to complete the public intervention that has already been launched, including the remaining 9,900 buildings, which will be supplied with connectivity at 1Gbit/s with related technical assistance for 5 years.

To implement the Plan, on January 28, 2022 Infratel called a tender for the supply of ultrabroadband Internet connectivity services at schools throughout Italian territory, including the supply and installation of access networks and operation and maintenance services, with a deadline of March 15, 2022.

The tender is divided up into 8 territorial lots; any individual subject can be awarded up to 4 lots.

"Isole minori" (Minor Islands) plan (0.06 billion euros)

The "Isole minori" Plan aims to provide adequate connectivity to 18 minor islands that today have no fiber optic connection with the continent. More specifically, the islands will be equipped with optic backhaul, which will allow ultrabroadband connectivity to develop. Optic backhaul will be accessible to all operators through Submarine Backhaul Access Points identified according to the criterion of least distance from the neutral delivery point (NDP), if present on the island, and from the point of arrival of the undersea cable.

The total budget is 60.5 million euros.

The measure will be implemented through direct intervention. The new network will be entirely financed and owned by the state and will be managed by one or more operators chosen on the basis of a competitive selection process that is open, transparent and non-discriminatory.

The tender to identify the economic operators to which the design, supply and installation of the undersea optic fiber cables is to be entrusted for the development of the "Isole minori" Plan, was launched on November 18, 2021 and drew to a close on December 22, 2021. The tender did not meet quorum requirements; Infratel amended and re-proposed it on February 11, 2022, with a deadline of March 18, 2022.

Voucher Plan

The aim of the Plan, again launched on May 05, 2020, with a total allocation of more than 1 billion euros, is to promote and offer incentive for the demand for ultrabroadband connectivity services (NGA and VHCN) in all areas of the country, in order to increase the number of families and businesses that use digital services with high-speed networks of at least 30 Mbit/s.

The measure is divided up into two phases.

The first, launched on November 09, 2020, with a budget of 200 million euros, in the favor of families with ISEE income of less than 20,000 euros, to whom a contribution of 500 euros is allocated (200 euros for connectivity and 300 euros for tablet or PC on free loan for use), met the need to address, during the early stages of the COVID-19 pandemic, the effects of the health emergency and guarantee suitable connection services to ensure continuity of the families' school and working activities. The first stage ended on November 09, 2021, a year after it started, as per the implementing decree. This measure has proven to be not much of an incentive: of the entire amount set aside of 200 million euros, no more than 93 million euros have been assigned. 210,000 bonuses have been assigned as compared to the 400,000 available.

The second phase to be launched in the early months of 2022, approved by the European Commission last December 15, 2021, provides for an allocation of approximately 609 million euros to be allocated to businesses. The MISE Decree of December 23, 2021 setting out the "Phase 2 voucher plan for interventions to support the demand for connectivity of micro, small and medium enterprises" was published in the Official Journal on February 9 2022. Net of the amount attributed to communication costs and expenses accompanying the measures and the reimbursement of direct and indirect costs linked to the activity, the amount set aside for the disbursement of the vouchers is approximately 590 million euros.

The Plan for businesses shall run until the resources allocated run out, in any case no more than 24 months after Infratel's launch of the intervention.

Companies can request just one voucher to guarantee an increase in connection speed, from 30 Mbit/s to more than 1Gbit/s, varying from a minimum of 300 euros to a maximum of 2,500 euros, according to the guaranteed download speed and contract term.

Infratel is preparing the Technical Plan and Operating Manual setting out a description of the intervention, the admission criteria for the disbursement of vouchers to companies, the implementing procedures and the related economic framework.

The measure is expected to be launched in March 2022.

Wholesale mobile network markets

Mobile termination market analysis

On January 22, 2019, AGCom published its final decision on mobile network termination market analysis (resolution no. 599/18/CONS). In particular, AGCom established symmetric tariffs for all MNO and full MVNO operators for the period 2018-2021 (0.98 euro cents in 2018, 0.90 euro cents in 2019, 0.76 euro cents in 2020, 0.67 euro cents in 2021) and confirmed the absence of an obligation to check the termination prices for calls originating outside the European Economic Area (EEA); however, SMP operators cannot adopt termination rates that are higher than those applied to Italian operators by operators in non-EEA countries where rates are regulated.

As specified above, in accordance with Delegated Regulation (EU) 2021/654 of the Commission, a progressive reduction is expected in mobile termination prices in three years, so as to allow for a gradual transition towards the target price of 0.2 cents/min. in 2024: 0.67 cents/min until end 2021, 0.55 cents/min in 2022 and 0.4 cents/min in 2023.

Retail fixed-line markets

Universal Service

Net cost
Following ruling no. 4616/2015, published on October 2, 2015, in which the Council of State canceled decision no. 1/08/CIR of AGCom on the retroactive application of the new methodological criteria for calculating the net cost of the universal service (USO) relating to the 2004-2007 years, the Authority began the public consultation of the net cost of the total years 2004-2007 with resolution 89/18/CIR, published on July 3, 2018, and subsequent resolution no. 62/19/CIR, published on May 7, 2019. On September 11, 2019, the Authority published the final resolution concerning the Net Cost of Use for 2004-2007 (resolution no. 103/19/CIR) in which it recognized the existence of an unfair charge for TIM of a total of 113.4 million euros to be shared between all fixed-line and mobile operators. The share payable by the OAOs amounts to approximately 26.6 million euros, calculated net of installments already paid by the same operators, following the 2004 and 2005 procedures approved "illo tempore". In relation to past disputes, following ruling no. 3388/15 of the Council of State, published on July 7, 2015, on September 11, 2019, the Authority launched the public consultation procedure (resolution no. 102/19/CIR) for an in-depth fixed-mobile substitutability analysis, in line with the path outlined for the 2004-2007 years. In this context, ruling no. 6881 of October 8, 2019, in which the Council of State authorized the return of the shares paid by Vodafone to TIM, for the contested years (1999-2000 and 2002-2003). In light of the above-mentioned Council of State ruling, which completely reversed the Lazio TAR rulings no. 6458, 6459, 6461 and 6463 of May 23, 2018, in execution of which the public consultation pursuant to resolution no. 102/19/CIR was started, the Authority revoked the aforementioned resolution with decision 190/19/CIR.

On July 21, 2020, AGCom launched the public consultation relating to the review of the inequity of the net cost of the universal service 1999-2009. The extension of the time period subject to renewal until 2009 was necessary following the ruling no. 2542/2020 with which the TAR accepted Vodafone's appeal, in terms of fixed-mobile substitutability. The opinions on the years 2004-2007, renewed by AGCom with resolution 103/19/CIR, and on which the TAR has not yet expressed an opinion also hang on the same issue. In compliance with judgment 6881 passed by the Council of State, in its Resolution 263/20/CIR, the Authority defined a new approach to demonstrate the lawfulness of the participation of mobile operators at the net USO cost for the years in question. AGCom's view expressed in the consultation is to recognize *prima facie* the unfairness of the charge for the years 2002-2009. For the previous years 1999-2000, however, the Authority did not recognize the existence of an unfair charge for TIM.

On March 29, 2021, with the publication of resolution no. 18/21/CIR, AGCom confirmed the obligation of mobile operators to participate in the USO contribution mechanism for the years 2001-2009, in line with the guidance expressed by the same Authority during public consultation. Following the objection to the resolution by Wind and Vodafone, the Ministry of Economic Development suspended the obligation for payment by the operators. Discussion of the use of the resolution in question took place during the public hearing of January 11, 2022. A decision is expected during the first half of this year.

Following conclusion of the audit of the Net Cost of the years 2010, 2011, 2012 and 2013, carried out by the auditor BDO Italia S.p.A., the authority started the public consultation procedure (resolution 92/21/CIR) on September 14, 2021. The deadline was November 13, 2021.

Guidelines for voluntary withdrawal

With resolution no. 487/18/CONS, the Authority regulated the ways operators must manage dissolution and transfer methods for user contracts.

TIM challenged the resolution regarding the provisions that limit the right to fully recover the costs in case of withdrawal (discounts from promotions, product installments). The administrative judge dismissed TIM's appeal, as the guidelines would not be directly damaging. TIM once again appealed against Resolution no. 487/18/CONS as a prerequisite for Resolution no. 591/20/CONS by which AGCom ordered TIM to pay an administrative fine for violation of Resolution no. 487/18/CONS regarding withdrawal.

Freedom to choose modems

With resolution no. 348/18/CONS, the Authority ratified the principle of user freedom to choose modems for Internet access.

TIM challenged the resolution in relation to the transitional provisions for customers who have an internet offer combined with a modem for a fee (sale and rental) in the months preceding the entry into force of resolution no. 348/18/CONS (December 1, 2018). At end 2018, these transitional provisions were suspended whilst awaiting scheduling of the hearing at the Regional Administrative Court of Lazio, set for October 23, 2019. On January 28, 2020, the Regional Administrative Court rejected TIM's petition in first instance; it has therefore submitted an appeal.

In May 2020, TIM notified its customers who had signed up for an Internet access and installment modem purchase offer before December 1, 2019, that they had the option to sign up for an equivalent Internet offer without a modem and an allowance for the remaining installments. By signing up for the equivalent offer, the residual debt in installments on the customer's bill for the purchase of the modem would not be due, this did not entail any additional charges for the customer or implied changes to the financial and contractual terms and conditions for using the active services on the line.

On August 02, 2021, the Council of State definitively rejected TIM's appeal.

Retail mobile network markets

Premium Services

In February 2021, with resolution no. 10/21/CONS, AGCom adopted new measures relative to the implementation of digital services with contents in subscription from mobile network. In particular, default barring has been envisaged on the SIMs, namely an inhibition to purchase these services, which can be removed by prior express decision of the customer, and a customer consent acquisition process for individual purchases, through the entry of a temporary password (an "OTP"). This resolution has been appealed against by TIM before the Regional Administrative Court.

Authority fees

AGCom contribution fee

On January 31, 2022, AGCom issued resolutions no. 376/21/CONS and 377/21/CONS relating to the payment of the AGCom contribution fee for the year 2022 (calculated on the 2020 financial statements figures). The guidelines for calculating the contribution fee are unchanged compared to the guidelines for calculating the 2021 contribution fee. For 2022, AGCom has confirmed the rate of 1.30 per thousand for electronic communications market at 1.90 per thousand for "media" services. On the basis of this rate, TIM paid around 15.677 million euros under reserve.

Privacy and personal data protection

General Data Protection Regulation (GDPR) and Legislative Decree 101/2018

On May 25, 2018, the General Data Protection Regulation (Regulation (EU) no. 2016/679 – "GDPR") came into force.

Furthermore, on September 19, 2018, Legislative Decree no. 101 of August 10, 2018 entered into force, which brought the Code regarding the protection of personal data (Legislative Decree June 30, 2003, no. 196) in line with the provisions of the GDPR – EU Regulation 2016/679.

To ensure compliance of personal data processing with the GDPR within Group companies, TIM has carried out the activities provided in the adaptation plan.

Of the main changes, the following is noted:

- the appointment of a Data Protection Officer and establishment of related contact points for individuals with questions relating to the processing of their personal data;
- the "System of rules for the application of legislation on personal data protection in the Telecom Italia Group" policy is kept constantly up-to-date and available on the corporate intranet. The policy for the exercise by data subjects of privacy rights has also been updated, as has the procedure for the management of data breaches and the manual for drafting the Privacy Impact Assessment; in 2020, the update to the System of rules involved, among other things, the issue of processing employee data in relation to the COVID-19 epidemic;
- the updating of the numerous policy notice texts on personal data processing, provided by TIM and the other Group companies to different types of Data Subjects (e.g. customers, employees, visitors).

A specific training project was put in place to raise awareness in the various company departments and illustrate the policies and procedures issued for applying the legislation on personal data processing. This training was provided during 2019. In 2020 training was provided to the Sales Departments and sales network partners in relation to the issue of commercial contacting. In addition, starting end 2020 and through to June 2021, specific training sessions have been held for TIM Customer Care resources and customer care service suppliers, focused on the topics of interest, such as the dispatch of customer requests relative to the exercise of privacy rights and commercial contactability. In addition, training has been delivered to the HR Management Department on rules for the correct processing of requests to exercise rights in accordance with the GDPR, made by TIM employees or former employees.

COVID-19 emergency

Under the scope of the COVID-19 emergency, TIM constantly monitors the evolution of the rules, regulations and opinions given and adopted by the government and the Data Protection Authority in relation to the processing of personal data of employees in a working context.

In this context, TIM adopts all the initiatives necessary to comply with said provisions.

Spectrum

In July 2020, with resolution 338/20/CONS, AGCom adopted a decision in favor of renewing for eight years until 2029 the rights to use of the TIM, Vodafone, Iliad and Wind/H3G FDD spectrum in the 2100 MHz band (2x15MHz for TIM and Vodafone, 2x10 MHz for Iliad, 2X5 MHz for Wind/H3G and 2x15 MHz for Wind/H3G, already extended). For the purpose of the renewal, in April 2021, TIM had paid approximately 240 million euros.

On January 17, 2022, the Court of Auditors registered the Ministerial Decree of extension, consequently notified to the MNOs concerned on February 4, 2022.

On December 31, 2021, AGCom published resolution no. 426/21/CONS in which it expresses a positive opinion on authorizing the extension through to December 31, 2029 of the rights to use frequencies in 28 GHz bandwidth for fixed use, expiring end 2022. The MED will need to calculate the extension contribution on the basis of the original assignment value, in proportion to the quantity of bandwidth and duration, reassessed on the basis of the ISTAT rate and increased by 30%. In this bandwidth, TIM owns 2x112 MHz, for which it will be submitting a request for extension.

On October 21, 2021, AGCom published a public consultation (resolution no. 315/21/CONS) relative to the request to renew the rights to use TIM's frequencies in the 3.4-3.6 GHz bandwidth (2X21 MHz in 9 regions of southern Italy), which expire in 2023 and the exchange of a block of 21 MHz with Linkem. This exchange would allow TIM to have 20 MHz nationally in this tender. The initial opinion of AGCom put for consultation is not in favor of renewing the authorization for TIM, but only of the exchange of frequencies between TIM and Linkem until 2023; we are still awaiting the final decision.

Regulatory measures for COVID-19

Based on the government "Cura Italia" decree, on March 18, 2020, AGCom adopted a first package of measures aimed at guaranteeing telecommunication services; this package takes into account the current health emergency situation and growth in the consumption of services and network traffic.

Two of the four permanent technical working groups set up by AGCom concern:

- improvement and security of telecommunication networks and services; and
- protection and facilitation of the use of digital services by consumers.

In implementation of the Decree, which allows AGCom to derogate from some regulatory conditions to better deal with public interest issues during the current health emergency period, AGCom has defined measures to improve the conditions of TIM's offer of regulated network services, by providing:

- a temporary reduction in the regulated wholesale costs of the Ethernet band for copper and fiber access;
- the maximum commitment for the accelerated supply of transport equipment and VLANs necessary for increasing the bandwidth and for following up the early opening of new NGA cabinets.

In addition, TIM must make its infrastructure available throughout Italy, responding to consumer requests without discrimination in relation to the country's technology and geographical areas.

AGCom has also asked all operators to make all possible efforts to contribute to the management of the state of emergency, indicating actions deemed relevant such as:

- trying to guarantee an increase in the average bandwidth per customer on the fixed network of at least 30% in the shortest possible time, where technically possible;
- making every effort, in the absence of coverage with an NGA fixed network and at the request of the condominium or the legal person responsible for the office, to activate, without any increase in costs until June 30, 2020, every possible access solution;
- recommend to final consumers that they use mainly fixed-line access at home (including wi-fi) so as not to overload the mobile network.

In relation to network adjustments, TIM has significantly increased bandwidth capacity both towards the Big Internet and on national nodes, improved mobile coverage and is increasing the coverage of the UBB fixed network.

In relation to the commercial offer for alternative operators, TIM has made price reductions available for the Ethernet band on the copper and fiber network, is managing requests for bandwidth increase received by the Other Authorized Operators (AOA) with a high priority and has allowed free and direct access to the TIM data network through public peering.

Finally, to counter the spread of COVID-19, TIM has defined an operating procedure for safely carrying out technical network works.

On the other hand, operators voluntarily proposed different measures to their customers. In particular, TIM has proposed free voice calls, free Gigabits and many other voluntary initiatives in support of remote working and distance learning.

Considering the persistence of the current state of emergency deriving from the global attempt to contain the COVID-19 pandemic, TIM has asked the Italian Authorities to assess, in compliance with the provisions of Art. 82 of the "Cura Italia" decree and in accordance with the guidelines set out in Resolution No. 131/20/CONS, an initiative that provides for the enabling of ADSL, at no cost to the user, for access lines on which TIM's "Voice" offer is active. Following consultation with the market and consumer protection associations, by means of Resolution no. 384/20/CONS AGCom approved TIM's initiative, albeit subject to compliance with a number of precautions and clarifications regarding both transparency vis-à-vis the end user and competitive aspects.

New benefits for disabled consumers

With Resolution no. 290/21/CONS, the Italian Communications Authority (AGCom) defined the new regulation for users with disabilities.

This resolution extends the current beneficiaries of electronic communication services, extending the special tariffs of fixed and mobile network services, currently only granted to the blind and deaf, to also include disabled users with major limitations to walking. To this end, an experimental phase of application of the measures is envisaged, expected to last twelve months, but which may be extended, to obtain information about the new beneficiaries and the effectiveness of the measures adopted. The new beneficiaries can submit requests to adhere within a 90-day time frame running from January 1 to April 1, 2022, with benefits set to start on April 30, 2022.

TIM, which has always paid close attention to the needs of disabled users, has decided to apply the benefits of the mobile offer to disabled users with major limitations to their walking, four months early, and therefore from January 1, 2022.

Extension of the Golden Power rule to 5G technology services

Law Decree Law March 25, 2019, no. 22 and Law Decree July 11, 2019, no. 64

Decree Law no. 22 of March 25, 2019 (converted, with amendments, by Italian Law no. 41 of May 20, 2019) introduced into Decree Law no. 21 of March 15, 2012 (converted with amendments by Italian Law no. 56 of May 11, 2012), Article 1-bis, which regulates the exercise of the special powers inherent to the broadband electronic telecommunication networks using 5G technology.

In particular, the following are subject to special powers:

- the agreement of contracts or agreements for the purchase of goods or services relating to the design, construction, maintenance and management of 5G service networks;
- the acquisition of high-tech components necessary for implementation or management;
- factors indicating the existence of vulnerabilities that could compromise the integrity and security of networks and the data sent on them.

In particular, the agreement of contracts and acquisition of high intensity components from subjects outside the European Union, carry an obligation to notify the Prime Minister to allow a timely exercise of the veto power.

Failure to comply with this notification obligation carries a pecuniary administrative fine equal to twice the value of the transaction and in any event not less than 1 percent of the turnover of the last financial year.

On September 21, 2019, Decree Law no. 105 was published (converted, with amendments, by Italian Law no. 133 of November 18, 2019), setting out "Urgent provisions on the cybernetic national security perimeter", which has extended the scope of application of rules on the special powers that can be exercised by the Government in the strategic sectors, liaising with the implementation of Regulation (EU) 2019/452 on the control of foreign investments in the European Union.

Most of the implementing measures defined in said Decree Law call for the issue of the following provisions:

- Decree of the President of the Council of Ministers (DPCM) regarding the regulation for the definition of the terms and criteria by which to identify the subjects included in the cybernetic security perimeter and criteria to be used to prepare the list of networks, sensitive information systems. The DPCM came into force on November 05, 2020;
- Administrative deed of the President of the Council of Ministers identifying the subjects included in the scope. Issued in December 2020;
- Decree of the President of the Council of Ministers (DPCM) regarding the definition of the procedures for notifying "incidents" impacting the systems to the CSIRT (Computer Security Incident Response Team) and the measures necessary to guarantee high security levels. The Decree was published in the Official Journal on June 11, 2021 and came into force on June 26, 2021;
- Decree of the President of the Republic (DPR) regarding the definition of the notification process to the CVCN (National Assessment and Certification Center) of the critical infrastructure other than 5G and for 5G devices supplied by European vendors: the regulation was published in the Official Journal on April 23, 2021 and came into force on May 8, 2021;
- Definition of the type of verifications and tests on hardware and software that can be carried out both under the scope of Golden Power and CVCN. The Regulation came into force on April 23, 2021;
- Decree of the President of the Council of Ministers (DPCM) whereby the categories of goods and services to be notified to the CVCN are identified. The Decree was published in the Official Journal on August 19, 2021 and came into force on May 09, 2021;
- Decree of the President of the Council of Ministers (DPCM) whereby the criteria are defined that the CVCN needs to use to identify the laboratories accredited to perform security/vulnerability tests. Not yet issued.

Law Decree no. 23 of April 8, 2020 (adopted with amendments by law no. 40 of June 5, 2020) substantially amended the general Golden Power regulation: also in relation to the communications sector, the obligation to notify of participations by foreign entity companies, including those outside the European Union, has been extended, in cases where the transaction is likely to determine the control over the company in which the equity investment was purchased.

On December 23, 2020, Decree no. 180 of the Presidency of the Council of Ministers was adopted, containing the new regulations for the identification of assets of strategic importance in the energy, transport and communications sectors, subject to the exercise of government powers under the Golden Power.

The measure confirms what has already been established by the previous regulations on telecommunications and amends some provisions relating to other sectors of strategic importance to Italy.

Urgent measures for simplification and digital innovation

As regards the measures to speed up the country's infrastructure process, in continuity with Decree Law no. 76 of 2020, the "Simplifications Decree Law", Decree Law no. 77/2021, setting out the "Governance of the National

Recovery and Resilience Plan and first measures to strengthen the administrative structures and speed up and streamline the procedures", like the previous one, sets out important simplification measures to speed up completion of both the 5G networks and networks in optic fiber and ultra-broadband. The Decree was definitively approved, with amendments, by Law no. 108 of July 29, 2021.

Amendment of the regulation of the Consolidated Law for the supply of audiovisual media services

Legislative Decree no. 208 of November 08, 2021 setting out the "Implementation of Directive (EU) 2018/1808 of the European Parliament and of the Council of November 14, 2018 amending Directive 2010/13/EU on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive) in view of changing market realities", has been published in the Official Journal.

The new aspects mainly regard the obligations assigned to suppliers of audiovisual media services and the sanction system for violations.

The decree came into force on December 25, 2021.

Review of the sanctioning power of AGCM (the Italian Competition Authority)

Legislative Decree no. 185 of November 08, 2021, setting out the "Implementation of Directive (EU) 2019/1 of the European Parliament and of the Council of December 11, 2018, to empower the competition authorities of the Member States to be more effective enforcers and to ensure the proper functioning of the internal market" has been published in the Official Journal. The decree aims to strengthen the sanctioning power assigned to the Competition Authority in compliance with the indications given by the European Community legislator.

The decree came into force on December 14, 2021.

Amendment of regulations governing copyright

Legislative Decree no. 181 of November 08, 2021, setting out the "Implementation of Directive (EU) 2019/789 of the European Parliament and of the Council of April 17, 2019, laying down rules on the exercise of copyright and related rights applicable to certain online transmissions of broadcasting organizations and retransmissions of television and radio programs, and amending Council Directive 93/83/EEC" has been published in the Official Journal.

The transposition decree aims to allow for a more widespread broadcasting of television and radio programs originating in other Member States, throughout the Member States, to the benefit of users of the entire European Union, facilitating the granting of copyright licenses and related rights for works and other protected material contained in the transmissions of certain types of radio and television programs.

The decree came into force on December 14, 2021.

2021 annual draft law for the market and competition

The Council of Minsters of November 04, 2021 approved the 2021 annual draft law for the market and competition.

The draft law has the following aims:

- to promote the development of competition, also with a view to guaranteeing access to the markets of small enterprises;
- to remove the legislative and administrative regulatory obstacles to the opening of the markets;
- to guarantee consumer protection.

With specific reference to the provisions, introduced by the text, relative to the competition, development of digital infrastructures and telecommunication services, the following are pointed out:

- **fiber optic network developments** (art. 20): an obligation to coordination between infrastructure managers and operators in the event of civil engineering works;
- **block and activation of premium services and acquisition of evidence of consent** (art. 21): greater consumer/user protection is offered for the supply of digital contents provided both through SMS and MMS and data connection, with debiting against telephone credit or billing, offered both by third parties and directly by the operators;
- **procedures for the development of new generation infrastructures** (art. 19): in the event of refusal to access, detailed reasons for the refusal must be given (also attaching photographic/technical documentation). For the other provisions, no substantial changes are highlighted with respect to that provided for to date.

The text has been sent to parliament for the standard analysis procedure. As it is a draft law, the time for its approval is medium/long.

New Electronic Communications Code

Italian Legislative Decree no. 207 of November 8, 2021 setting out the "Implementation of Directive (EU) 2018/1972 of the European Parliament and of the Council of December 11, 2018, establishing the European Electronic Communications Code, was published in the Official Journal on December 09, 2021 and came into force on December 24, 2021.

The new Code reviews and replaces the previous regulatory framework and introduces important new features including, in particular, the following:

- **to foster the copper-fiber migration of customers**: the user must allow operators to perform technological adaptation works on the access networks, aimed at improving the connection (without changes to the economic conditions);
- **contract duration**: provide for an initial contract duration of no more than 24 months and introduce at least one commercial offer of a maximum initial duration of 12 months;
- **sanctions**: far more severe, particularly as concerns violations of user protection;
- **right of withdrawal in the event of *ius variandi***: extension of the deadline to exercise the right of withdrawal (60 days from communication of the contractual changes instead of 30 days);
- **right of withdrawal**: it is stressed that the provisions of art. 1 of Decree Law 7/2007 (Bersani Decree Law) remain in place but the deactivation cost should be eliminated in the event of termination/withdrawal after contract expiry (12/24 months) and the option is introduced for the customer to return the network terminal equipment before the agreed contract end date, at no extra cost;
- **Universal Service**: a review is envisaged of the existing obligations, by the Minister, by December 21, 2022 and thereafter every 3 years;
- **Universal Service**: broadband Internet access from a fixed location has been included in the universal service. It will be up to AGCom to define, in light of national circumstances and the minimum bandwidth available to the majority of consumers in Italy (and taking into account the report by BEREC on best practices), what exactly is an adequate access service to broadband Internet. Internet access must in any case be able to supply the bandwidth necessary to support at least the minimum set of services pursuant to annex 5 of the new Code;
- **Universal Service**: the mechanism has been eliminated, by AGCom resolutions, used to fix the annual Quality of service targets that TIM, as the operator appointed to supply the universal service, was called to respect, at risk of having to pay administrative fines.

Extension of the state of emergency due to the COVID-19 pandemic

Decree Law no. 221 of December 24, 2021 (approved definitively on February 17, 2022 and awaiting publication in the Official Journal of the conversion law) has prolonged the state of national emergency and measures to limit the COVID-19 epidemic until March 31, 2022.

As a result of the provision, the emergency powers have also been extended for the Head of the Civil Protection Department, along with the structure of the Extraordinary Commissioner for the implementation and coordination of the measures to limit and fight the epidemiological emergency.

The Decree Law came into force on December 25, 2021. Due to the worsening of the epidemiological emergency, the Government then adopted Decree Law no. 229 of December 30, 2021, which came into force on December 31, 2021 and Decree Law no. 1 of January 07, 2022, which came into force on January 08, 2022, strengthening the previous measures taken to fight the pandemic.

Below is a brief summary of the main news:

- from January 10, 2022 to March 31, 2022, the scope of application of the obligation to use a green pass, has been extended;
- new criteria have been defined for quarantine;
- a rule has been passed to limit the price of FFP2 type masks;
- the provisional vaccine obligation has been introduced, until June 15, 2022, for all residents of Italy aged over 50 years old, with the exception of cases of ascertained danger to health in connection with specific, documented clinical conditions;
- starting February 15, 2022, public and private employees aged over 50 must have the “super” (or “reinforced”) green pass to access the workplace;
- companies (regardless of the size of the workforce) can replace workers suspended insofar as lacking a green pass, for a period of 10 days, which can be renewed until March 31st;
- with no age limit, the obligation for university staff to be vaccinated has been extended;
- wherever possible, smart working is recommended;
- new criteria have been introduced for the activation of distance learning at schools, to combine the right to studying in person with the need to limit the spread of the virus.

Brazil

Revision of the model for the supply of telecommunications services

In 2019 Law 13879 was approved, that came into force on October 4, 2019, establishing a new regulatory environment for the regulation of telecommunications in Brazil. This is the most significant change in 20 years.

The new telecommunications framework allows fixed-line licensees to adapt their contracts from a concession scheme to an authorization scheme. This transition from concession to authorization must be requested by the licensee and requires the approval of the Anatel ("Agencia Nacional de Telecomunicações"). In return, licensees must, among other conditions, make a commitment to investment in expanding fixed broadband telephony services to areas with no adequate competition for these services, in order to minimize inadequacies and inequalities between areas of Brazil.

The change also affects the roles for authorizing the use of radio frequencies, establishing subsequent renewals (currently limited to only one) and allows the exchange of radio frequencies between operators (secondary spectrum market).

In June 2020, Decree 10402 was published, which governs the procedure for adapting the concession to the authorization regime, as well as the definition of the criteria for calculating investment commitments. The Decree also established guidelines for the extension of radio frequency authorization, which will be held by Anatel to guarantee greater security for investments in the sector.

Public policies applicable to the telecommunications sector

Decree 9612/2018 ("Connectivity Plan") established another series of important rules, with a series of guidelines for the adaptation of conduct terms, the onerous concession of spectrum authorization and regulatory acts in general, including: (i) expansion of high capacity telecommunications transport networks; (ii) increased coverage of mobile broadband access networks; and (iii) broadening the coverage of fixed broadband access network in areas with no Internet access through this type of infrastructure. This Decree also establishes that the network resulting from the commitments must be shared from the moment it enters into service, except where there is adequate competition in the relative reference market.

In relation to the deadlines for the development of pipelines not compliant with current regulations, authorizations for user licenses to radio frequencies, and the introduction of other statutory provisions generally, planned investments (as identified by Anatel and approved by the MCTI-Ministério da Ciência, Tecnologia e Inovações) will focus primarily on the expansion of mobile and fixed-line broadband networks and on specific areas of the country. Telecommunications networks built under the investment plan will have shared access.

The decree was amended by Decree 10,799/2021, which included priorities for the coverage of public policies, including coverage of the "areas of census with public schools"; coverage of towns not served by mobile telephone and the expansion of fixed access to broadband in places without access.

The decree also provides for the assignment of funds for the approval of projects approved by Connected Cities and for the temporary supply of fixed or mobile broadband. In addition, it regulates the private federal network, which can be carried out by other public or private entities or organizations and the criteria for the use and management of the network will be defined by the Federal Government under the terms established in a deed of the Ministry of State for Communications.

In 2020, the decree No. 10,480/2020 was published by the federal government, which regulates the antennas law (law 13,116/2015) with the purpose of stimulating the development of the telecommunications network infrastructure. This decree fosters development of telecom network infrastructure and is a major step towards unlocking historical problems in the sector preventing its development (free right of way on highways and railways, positive silence, small cells, dig once are some of the examples of such regulatory removal of historical problems).

That same year, law 14109/2020 authorized the use of FUST ("Fundo de Universalização dos Serviços de Telecomunicação"), including by the private sector, to expand connectivity in rural or urban areas with a low human development Index (HDI) as well as policies for education and tech innovation of services in rural areas. In June 15, 2021, Provisional Measure 1018/2020 was transformed into Law No. 14,173/2021, reducing charges for satellite internet terrestrial stations and changing some of FUST application rules.

The law reduces FUST collection between 2022 and 2026, to telecommunications operators that run universalization programs approved by the Board of Directors with their own resources. The benefit will be valid for five years from January 1, 2022 and will be progressive: 10% in the first year; 25% in the second year; 40% in the third year; and 50% from the fourth year onwards.

In addition, the new legislation removes the obligation to share towers within a distance of less than 500 meters from each other. The elimination of this obligation is essential for the deployment of 5G in Brazil, including to ensure the densification scenario expected for the new technology.

Revision of the Service Quality Regulation

In December 2019, Anatel approved the new Telecommunication Services Quality Regulation (RQUAL), based on a reactive regulation. In this new model, quality is measured on the basis of three main indicators – a Service Quality Index, a Perceived Quality Index and a User Complaints Index – and operators are classified into five categories (A to E). Based on this reactive regulation, Anatel will be able to take measures according to specific cases, such as consumer compensation, the adoption of an action plan or the adoption of precautionary measures to ensure quality standard improvements.

After a joint work of Anatel, operators and the Quality Assurance Support Authority (ESAQ) to define the objectives, criteria and reference values of indicators, recently, late November 2021, the Anatel Board of Directors formalized the reference documents supporting this regulation: the Operating Manual and the Reference Values; and established the operative coming into force on March 1, 2022, as well as the dissemination of official indexes and the Quality Mark (which fosters competition on quality) at the start of

2023, considering the results of the new indicators monitored in the second half of 2022. Until then, Anatel will continue to monitor the old indicators, which remain similar to the new ones laid down by the new RQUAL.

Data protection

On August 14, 2018, the General Data Protection Law (Law 13,709/2018, “LGPD”) was promulgated.

In December 2018, Provisional Measure 869/2018 was converted into law 13,709 to create the National Data Protection Authority (ANPD); the coming into effect of the law has been extended for 24 months (August 2020).

In June 2020, Law 14,010/2020 deferred the coming into force of the LGPD, only for the provisions related to fines and penalties, to August 2021. The other provisions of the law took effect in September 2020. In addition, Decree 10474/2020 (National Data Protection Authority) came into force in August 2020, establishing the ANPD (Autoridade Nacional de Dados Pessoais), which is responsible for, among other things: developing guidelines for the National Data Protection Policy; supervising companies and applying sanctions; and issuing regulations and procedures on personal data protection.

In January, the ANPD published the two-year regulatory agenda (2021-2022), which lists the following key points: internal regulation of the ANPD, definition of rules for the application of art. 52 *et seq.* of the law, data subject rights and the notification of data breaches, amongst others.

In August 2021, articles relative to supervision and sanctions by the National Authority (ANPD) came into force.

In October 2021, the regulation (CD/ANPD no. 1 of October 2021) was approved for the supervision and sanction administrative process, under the scope of competence of the ANPD.

Strategic Digital Transformation and the Internet of Things

In March 2018, the E-Digital Decree (9319/2018 Decree) was published, in order to identify about 100 strategic actions to encourage competition and the country’s level of online productivity, while increasing connectivity and digital inclusion levels. These actions seek to address the digital economy’s main strategic questions, including connectivity infrastructure, data use and protection, the IoT and IT security.

In December 2021, the MCTI began the review and approval is expected for the first half of 2022.

The Decree on the National Plan for the Internet of Things (Decree 9854/2019) was published in June 2019, to regulate and promote this technology in Brazil. The IoT is referred to as the “infrastructure integrating the provision of value-added services with the ability to physically or virtually connect things using devices based on existing information and communication technology and their evolution, with interoperability”. The Decree lists the following topics, defining them as necessary to further support the National Plan for the Internet of Things: (i) science, technology and innovation; (ii) international integration; (iii) education and professional training; (iv) connectivity and interoperability infrastructure; (v) regulation, security and privacy; (vi) economic feasibility.

In order to develop an IoT environment in the country, Law 14,108/2020 was passed. This law exempts base stations and equipment that integrate machine-to-machine (M2M) ecosystems from FISTEL (an administrative tax collected by Anatel) for 5 years and, in addition, extinguishes the previous license. The definition and regulation of M2M communication systems are established by Anatel.

5G Auction

In February 2020, the Ministry of science, technology, innovations and communications published ordinance No 418 with guidelines for the 5G auction, concerning radiofrequency bands of 700 MHz, 2.3 GHz, 3.5 GHz and 26 GHz, requiring Anatel to define technical criteria for mobile operation on 3.5 GHz in order to avoid harm from a TVRO signal offered by satellite dishes in Band C. It also established that the auction should considered coverage commitments to (i) mobile service on 4G technology or higher to cities, small villages and isolated urban and rural areas with more than 600 habitants; (ii) mobile broadband on federal highways; and (iii) fiber to the city (FTTC) on municipalities without this backhaul.

Also in February 2020, Anatel issued the public consultation No 9 in order to discuss the draft of the Public Notice for the 5G Auction. Anatel called for bids for the 700 MHz, 2.3 GHz, 3.5 GHz and 26 GHz bands, including another 100 MHz in the 3.5 GHz band. It was expected that the investment commitments would have enabled more infrastructure and a higher level of services to users, such as is outlined in the structural plan for telecommunications networks (PERT).

Regarding the possible interference caused by 5G in the reception of open satellite TV, the approved proposal addresses the solution through a model similar to that adopted for the 700 MHz band, with the creation of a group coordinated by Anatel and an independent third party to operationalize the solution.

In February 2021, the Anatel Board of Directors approved the public notice for the 5G Auction. After which, the Brazilian federal court of auditors (TCU) assessed the matter, which was completed on August 25, 2021. The auction returned for analysis to Anatel, which on September 24, 2021 approved the notice. The auction envisaged in the second half of 2021 was held in November 2021. TIM acquired 11 lots, with a total value offered of 1.05 billion reais, in 3 frequency bandwidths: 3.5 GHz, 2.3 GHz and 26 GHz. The bandwidths acquired have a series of obligations that must be satisfied with financial contributions or the construction of mobile and fixed network infrastructures. Consequently, TIM guarantees the spectrum capacity necessary to pursue its growth nationally on the mobile market, being ready to respond to its customers’ demands and to explore new applications and develop innovative solutions calling for high-speed connectivity and capacity.

The main commitments associated with each bandwidth are:

- 2.3 GHz: 4G coverage in certain municipalities and areas (south and south-east regions);

- 3.5 GHz: 5G coverage in all municipalities with a population of at least 30,000 inhabitants + backhaul obligations in fiber in 138 municipalities + additional contributions to a new entity (EAF) to develop the following projects: cleaning of 3.5 GHz, development of fiber optic in Amazonia and construction of a private network for exclusive use by the federal government;
- 26 GHz: contributions to a new entity (EACE) to develop school connectivity projects.

COMPETITION

Domestic

The market

In 2021, as in previous years, the Italian telecommunications market has been characterized by a strong degree of internal competition and, similarly to 2020, has been partly impacted by the continued health emergency.

Although 2021 saw a gradual recovery from the peak of the emergency 2020 lockdown to limit the SARS-CoV-2 pandemic, the government has maintained some restrictions to social activities such as: personal distancing, the use of smart working wherever possible and distance learning in certain circumstances.

The intense vaccination campaign run throughout 2021 has made it possible to mitigate the effects of the restrictions, with benefits on the consumer confidence index and the economy in general, generating a corresponding growth in consumption and a significant increase in the gross domestic product, above 6% YoY[5].

Although to a more limited extent, certain digital service consumer trends sparked by the pandemic were confirmed in 2021: indeed, significant use of smart working in private companies and the public administration alike was recorded, further growth in the use of most digital services, continued use of video communication services for private and working needs and a further increase in on-line purchases of various types of goods and services.

The effect for the telecommunications networks was, therefore, a further increase in average daily traffic by approximately 21% on the previous year (Jan.-Sept. 2021 vs same period 2020), which led to a total of +75% in terms of the traffic increase with respect to the pre-pandemic period (Jan.-Sept. 2019)[6].

The development of broadband and ultrabroadband continues to be the main element of evolution of the fixed market, intended to intensify also on the boost assured by the national ultrabroadband strategy approved in May 2021 for infrastructural development in line with the objectives of the PNRR.

The Italian telecommunications market remains highly competitive, with the greatest impact of market dynamics on voice and data connectivity services and, despite the growth in volumes and the development of ultrabroadband, a progressive compression of total spending on TLC services.

In the new digital world, telecommunications operators also have to deal with Over The Top and device manufacturers with completely different competitive assets and logic. To exploit new opportunities and meet the challenges posed by the new entrants, operators are changing their traditional business model and entering adjacent businesses such as, for example:

- The Media & Entertainment sector in which, as a result of the growing importance of the Internet as a complementary distribution platform, we are seeing a continuous growth of on-demand services (VOD and SVOD), made available by platforms such as Netflix, DAZN, Prime Video and Disney+.
- The Information Technology sector, growth of which is supported by the digital transformation of businesses and the public sector.

For telecommunication operators, if on the one hand, a progressive decline is recorded of the traditional fixed and mobile connectivity service component, on the other, there is constant growth seen in Information Technology and Internet of Things components, as a result of the growing demand for digitization of companies and the public administration.

Competition in Fixed-line Telecommunications

Overall, the fixed access market shows slight growth but with a strong dynamic between segments, significantly shifting the customer base to technologies that allow for more advanced performance, such as ultrabroadband lines on FTTH and FTTC technologies.

According to AGCom[7], during the third quarter of 2021, total accesses remained essentially stable with respect to the previous quarter, but up by approximately 400 thousand units YoY; FTTC lines increased by 1.1 million YoY and by 6.5 million over the whole period; in a similar fashion, FTTH accesses grew by more than 800 thousand units and at end September exceeded 2.4 million. Although to a lesser extent, Fixed Wireless Access lines have also grown, increasing by 239 thousand units during the year up to almost 1.7 million.

TIM maintains its leadership position in overall fixed accesses, broadband and ultrabroadband. In a competitive context that did not really change, the main operators defended their customer base from new entrants. Sky WIFI has not ye reached the AGCom visibility threshold.

As further confirmation of just how challenging it is to operate on the fixed market, the case of Iliad is significant, which has continued to postpone the launch announcement on the access market, exceeding 2021 (broadband and ultrabroadband access market, last data from AGCom available IIIQ 2021: TIM share 42.2%, followed by Vodafone with 16.5%, Fastweb with 14.9% and Wind Tre with 14.1%).

Migration to fiber is supported by the progressive coverage of ultrabroadband networks in progress nationally.

FiberCop (the infrastructure company controlled 58% by TIM and in which KKR Infrastructure has a 37.5% investment and Fastweb 4.5%)[8] operates on the basis of the co-investment model and is the first case in Europe to apply the new European Electronic Communications Code on a national scale[9]. In 2021, various co-investment agreements were signed, most recently in December with WirLab, a multi-utility company

[5] In 2021, Italy's GDP grew by 6.3% according to the ISTAT report "Prospects for the Italian economy in 2021-2022" dated December 03, 2021.
[6] AGCom Press Release of December 29, 2021.
[7] AGCom Press Release of December 29, 2021.
[8] TIM Press Release of April 01, 2021.
[9] TIM Press Release of January 29, 2021.

operating with Internet, voice, electricity and gas services, and Springo, an Internet provider operating in the north-east. WirLab's adhesion follows a series of other adhesions, including Fastweb, Tiscali and Iliad[10].

The development of broadband has continued to enable new over IP services, Media first and foremost, with Pay TV - OTT, which in 2021 increased its number of subscribers significantly. Entertainment contents starred football: similarly to as is already the case elsewhere in Europe, in Italy too, football is now migrating to streaming technology. In March 2021, DAZN and TIM signed a distribution agreement which, by extending the existing partnership currently in place, brought the content of the streaming service to TIMVision for the next three years. DAZN, which was awarded the television rights for Serie A football matches for the 2021-2024 seasons, will continue to distribute matches via the Internet and has chosen TIM as its strategic partner and telephone operator and reference pay TV for the DAZN contents offer in Italy[11].

Competition in Mobile Telecommunications

The Italian mobile market is one of the largest of Europe with one of the highest penetration rates of the whole continent. In this market, the trend continues to see a reduction in the number of "human" SIMs (SIM cards for human communications), as a result of the rationalization of second and third cards, as well as a significant growth of "Machine to Machine" (M2M) SIMs.

Alongside innovative services that have already caught on and are under full-scale development, as in the case of mobile apps, there are other market environments, associated with the development of Mobile Broadband, with major potential for growth in the medium term, such as the Internet of Things and mobile payment.

According to AGCom, at the end of September 2021, TIM was the market leader with 28.8%, followed by Vodafone (28.5%) and Wind Tre (24.8%), while the new entrant Iliad has 7.7%.

On the "human" SIM segment alone, Wind Tre remains the main operator, followed by TIM, Vodafone and Iliad[12].

The entrance of the new mobile operator, Iliad, in May 2018, has sparked strong competition between the major operators, which launched second brand mobiles to offer low-cost options. TIM launched Kena Mobile; Vodafone launched its brand Ho and, most recently, in February 2020, Wind Tre launched Very Mobile.

This competitive reaction by the infrastructured operators has slowed the growth of customers and market share of Iliad.

Due to this intense competition and the continued state of pandemic emergency, in recent years, total spending on mobile services has continued to reduce.

An additional increase in competition also comes from the combination of fixed and mobile offers available from virtual operators such as, for example, PosteMobile, which launched an FTTH service in May 2021, using the Open Fiber network.

The competition on 5G continues with the simultaneous presence of TIM, Vodafone, WindTre, Iliad and Fastweb for mobility offers, a progressive coverage of the main cities and a greater dimension of the portfolio of terminals enabled for the new network.

TIM and Vodafone launched their commercial 5G services back in 2Q19, whilst Wind Tre, Iliad and Fastweb did so in 4Q20. 2021 saw a drive on increasing 5G network coverage, which also allows for the development of services and the FWA 5G market, to complement the development of the fixed ultrabroadband network.

All operators are moving to take advantage of the various opportunities in new vertical markets (e.g. energy & utilities, smart cities, smart manufacturing, automotive, eHealth) and provide new services, enable new production processes and increase efficiency in optimized product management, in particular enhancing the opportunities offered by the digitization solutions made possible by machine-to-machine mobile lines.

Brazil

In 2021, the macroeconomic scenario began recovering as compared with 2020, the year of the COVID-19 pandemic. As in many countries, in 2020, lockdown protocols have had a negative impact on the economy, increasing uncertainty, deferring investments, reducing income and employment in a bid to prevent the loss of human lives. On the other hand, the digital transformation has reached a new level, putting telecommunications companies firmly in the spotlight, offering up new possibilities and bringing people into contact with each other, driving on advanced services like food and drug deliveries, the streaming of content and video calls. As people get vaccinated and physical trade reopens, we see some habits return to pre-COVID-19 levels, but some of the new behavior has continued to apply, to a certain extent, even after people were able to return to the streets.

The economic recovery in Brazil began in 2021 more quickly than expected, but lost some drive during the year, with rapid growth of inflation mainly due to food and energy prices. During the year, the important administrative or tax reforms envisaged, amongst others, were not implemented. In addition to this, the political scenario is filled with uncertainty, with the presidential elections approaching and the political polarization still in place. The employment rate began growing in 2021, which is a good sign for recovery prospects. For 2022, a sharp deceleration in the growth of the GDP is expected, but inflation should return to target levels. As interest rates have been increased in a bid to slow inflation, we expect to see investors shift towards bank investments and a simultaneous distancing from the stock market.

Despite improving financial performance indicators, economic conditions are still challenging, with budget deficit and rising debts (for central governments, federal states and municipalities) carrying a risk that can only be managed with more structural reform, for which Congress's approval is needed. Approval of changes in spending policies, which have allowed for the deferral of payment of tradeable government bonds in order to

[10] TIM Financial Information at September 30, 2021.
[11] TIM Press Release of March 26, 2021.
[12] AGCom Press Release of December 29, 2021.

open the budget to increase spending with the social subsidy program "Auxilio Brasil" has increased concern over the management of public finances.

The mobile telecommunications sector has seen some rationality prevail in the market and in competition, with service providers concentrating on the characteristics and range of services of their commercial offers, rather than pursuing aggressive pricing policies. The operator with the most aggressive price offer is Oi, which will leave the mobile market in 2022. Last, but by no means least, the reduction from 4 to 3 main mobile operators and the increase in the number of infrastructure companies can lead to a better allocation of capital and return on investments.

In the prepaid segment, the main aim of market operators was to increase the percentage use of services, leveraging the SIM card consolidation process in progress on the market, encouraging migration towards weekly (and monthly) or hybrid (Controle postpaid) plans, offering a range of service bundles according to the needs of customers (unlimited voice calls or data packages). This strategy aims to improve the customer base mix and ensure greater stability (and a reduction in the churn rate) and the growth in ARPU. Despite the declining trend seen in recent years of the customer base, in 2021, the market segment as customer base rose by 3.6% year-on-year at November 2021.

The postpaid mobile segment records an increase in the customer base, mainly supported by the hybrid Controle segment (in particular by migrations of prepaid customers), although "pure" postpaid lines have also recorded a certain degree of growth. This growth is based on offer segmentation strategies, through the introduction of distinctive characteristics in the use of data services (e.g. unlimited use of data on specific apps such as WhatsApp, Facebook, Twitter, Netflix, etc.) in pursuing a "More for More" policy logic that aims to guarantee a greater stability of prices and an effective repositioning of the customer base on higher value offers (voice + data + contents). The total market postpaid customer base (excluding M2M) had grown by +11.7% YoY in November 2021.

Service quality is still an element of differentiation. The telecommunication suppliers that have invested more in the development of 4G networks (coverage and capacity) and in the improvement of processes shaping customer experiences will have a greater capacity to apply premium prices because customers increase their expectations and assign increasing importance to the quality of data services and higher value contents. The main mobile operators already provide 4G coverage for over 99.4% of the Brazilian population (up to December 2021), with the three main operators offering average 4G availability in excess of 77% (according to the January 2022 Opensignal report).

In November 2021, the 5G auction was held. As expected, the 3 main operators were awarded the blocks at 3.5GHz, 2.3GHz and 26GHz. Some smaller regional operators were also awarded some regional blocks, mainly at 3.5GHz. The crucial aspect can be considered the price paid by Brisanet for the 3.5GHz block in the north-east (more than 1 billion reais) and the winner of the 700MHz block, Winity, which will be a neutral mobile network operator, an all-new approach on the Brazilian market.

The fixed broadband market recorded a growth of +11.7% on an annual basis in November 2021, mainly driven by smaller market operators (+30.6% year on year), which tend to offer cheaper services, especially in areas where incumbent operators have infrastructure limitations. Things are happening in terms of M&A amongst the smaller Internet service providers (ISP), with 3 ISPs that performed an IPO to obtain the capital needed to finance their growth strategy: Brisanet in the north-east region, Unifique in the south region and Desktop in the state of SP (the most populated and richest state). As a result, traditional incumbent operators are suffering sharp downturns to their customer base. The penetration rates in the population are still fairly low (approximately 56% of homes) as compared with a great many countries, which means that there are good medium-term growth opportunities, supported by the improvement in the macroeconomic situation.

In this context, in 2017 TIM adopted a commercial strategy to enable TIM Live to expand coverage, offering ultrabroadband Internet services, mainly through FTTH, not only in some of the largest cities of Brazil, but also in cities where opportunities are available for a similar high-quality service. TIM Live has a customer base of over 683 thousand users in November 2021 (an increase of 6.5% year on year).

In order to obtain a speedier, smarter growth of the footprint, TIM sold 51% of the newco FiberCo (now I-Systems), which will have the infrastructure for the offer of broadband in fixed fiber and will act as neutral network operator.

CONSOLIDATED FINANCIAL POSITION AND CASH FLOWS PERFORMANCE

Non-current assets

- **Goodwill**: this drops by 4,279 million euros, from 22,847 million euros at December 31, 2020 to 18,568 million euros at December 31, 2021, mainly due to the effect of the aforemenioned impairment of Goodwill attributed to the Domestic Cash Generating Unit, equal to 4,120 million euros, due to the results of the impairment test carried out at December 31, 2021. The balance is also impacted by the reduction of part of the goodwill attributed to the Brazil cash generating unit (165 million euros) following the dilution from 100% to 49% of the equity investment in the capital of I-System S.A. (formerly FiberCo Soluções de Infraestrutura S.A.), the company established for the segregation of the network assets of the TIM Brasil Group and the related supply of infrastructure services. An increase is also recorded of 2 million euros relating to the recognition of provisional goodwill connected with the acquisition by Olivetti S.p.A. of 100% of Staer Sistemi S.r.l. completed in September 2021. In 2021, the exchange difference is positive for 4 million euros and relates to the goodwill attributed to the Brazil Cash Generating Unit[1].

  Further details are provided in the Note “Goodwill” to the Consolidated Financial Statements at December 31, 2021 of the TIM Group.

- **Intangible assets with a finite useful life**: these increased by 407 million euros, from 6,740 million euros at the end of 2020 to 7,147 million euros at December 31, 2021, representing the balance of the following items:
  - capex (+ 1,886 million euros);
  - amortization charge for the year (-1,511 million euros);
  - other disposals, exchange differences and other changes (for a net positive balance of 32 million euro, of which 13 million euro of positive exchange differences essentially relating to the Brazil Business Unit).

- **Tangible assets**: these increased by 170 million euros, from 13,141 million euros at the end of 2020 to 13,311 million euros at December 31, 2021, representing the balance of the following items:
  - capex (+2,665 million euros);
  - depreciation charge for the year (-2,284 million euros);
  - other disposals, exchange differences and other changes (for a net negative balance of 211 million euros, including 192 million euros for the deconsolidation of the Brazilian company I-Systems S.A. and 24 million euros in exchange gains).

- **Rights of use assets**: these fell by 145 million euros, from 4,992 million euros at the end of 2020 to 4,847 million euros at December 31, 2021, representing the balance of the following items:
  - investments (+79 million euros) and increases in lease contracts (+667 million euros);
  - amortization charge for the year (-695 million euros);
  - disposals, exchange differences and other changes (for a net negative balance of 196 million euros). Exchange differences are positive for 15 million euros and mainly relate to the Brazil Business Unit. Other changes mainly included the lower value of the rights of use recorded as a result of contractual changes during the period.

- **Other non-current assets**: these come to 11,244 million euros and decline on December 31, 2020 by 3,458 million euros, mainly following the partial write-off by the Parent Company TIM S.p.A. of the deferred tax assets recognized in 2020 in respect of the tax recognition of higher values booked in accordance with Decree Law 104/2020, art. 110, subsections 8 and 8 bis. Further details are provided in the Note “Income tax expense (current and deferred)” to the Consolidated Financial Statements at December 31, 2021 of the TIM Group.

[1]The spot exchange rate used for the translation into euro of the Brazilian real (expressed in terms of units of local currency per 1 euro) was 6.32047 at December 31, 2021 and 6.37680 at December 31, 2020.

Consolidated equity

Consolidated equity amounted to 22,039 million euros (28,840 million euros at December 31, 2020), of which 17,414 million euros attributable to Owners of the Parent (26,215 million euros at December 31, 2020) and 4,625 million euros attributable to non-controlling interests (2,625 million euros at December 31, 2020). In greater detail, the changes in consolidated equity were the following:

(million euros)	12/31/2021	12/31/2020
At the beginning of the year	**28,840**	**22,626**
Total comprehensive income (loss) for the year	(8,110)	5,836
Dividends approved by:	(373)	(378)
TIM S.p.A.	*(318)*	*(316)*
Other Group companies	*(55)*	*(62)*
FiberCop - capital increase	1,750	—
INWIT - deconsolidation	—	*(644)*
Daphne 3 - capital increase	—	1,334
Issue of equity instruments	33	43
Daphne 3 - distribution of additional paid-in capital	(42)	—
Other changes	(59)	23
At the end of the year	**22,039**	**28,840**

Cash flows

The adjusted net financial debt amounted to 22,187 million euros, down by 1,139 million euros compared to December 31, 2020 (23,326 million euros).

The Group's **operating free cash flow** for 2021 is positive for 1,444 million euros (3,304 million euros in 2020), i.e. 1,879 million euros (3,414 million euros in 2020), net of 435 million euros (110 million euros in 2020) related to the acquisition of rights to use telecommunication service frequencies.

Moreover, the main transactions that had an impact on the change in adjusted net financial debt are as follows:

Change in adjusted net financial debt

(million euros)	2021 (a)	2020 (b)	Changes (a-b)
EBITDA	5,080	6,739	(1,659)
Capital expenditures on an accrual basis	(4,630)	(3,409)	(1,221)
Change in net operating working capital:	733	772	(39)
Change in inventories	*(39)*	*20*	*(59)*
Change in trade receivables and other net receivables	*257*	*484*	*(227)*
Change in trade payables	*584*	*(193)*	*777*
Changes of mobile licenses acquisition payable/spectrum	*369*	*(110)*	*479*
Other changes in operating receivables/payables	*(438)*	*571*	*(1,009)*
Change in provisions for employee benefits	(83)	(628)	545
Change in operating provisions and Other changes	344	(170)	514
Net operating free cash flow	**1,444**	**3,304**	**(1,860)**
% of Revenues	*9.4*	*20.9*	*(11.5) pp*
Sale of investments and other disposals flow	1,935	1,294	641
Share capital increases/reimbursements, including incidental expenses	(42)	1,164	(1,206)
Financial investments	(102)	(25)	(77)
Dividends payment	(368)	(390)	22
Increases in lease contracts	(667)	(1,288)	621
Finance expenses, income taxes and other net non-operating requirements flow	(1,061)	283	(1,344)
Reduction/(Increase) in adjusted net financial debt from continuing operations	**1,139**	**4,342**	**(3,203)**
Reduction/(Increase) in net financial debt from Discontinued operations/Non-current assets held for sale	—	—	—
Reduction/(Increase) in adjusted net financial debt	**1,139**	**4,342**	**(3,203)**

Equity Free Cash Flow

(million euros)	2021	2020	Changes
Reduction/(Increase) in adjusted net financial debt from continuing operations	**1,139**	**4,342**	**(3,203)**
Impact for finance leases (new lease operations and/or renewals and/or extensions (-)/any terminations/early extinguishing of leases (+))	452	419	33
Payment of TLC licenses and for the use of frequencies	435	110	325
Financial impact of acquisitions and/or disposals of investments	(1,804)	(1,483)	(321)
Dividend payment and Change in Equity	410	(974)	1,384
Equity Free Cash Flow	**632**	**2,414**	**(1,782)**

In addition to what has already been described with reference to EBITDA, the change in adjusted net financial debt for 2021 was particularly impacted by the following:

Capital expenditures and for mobile telephone licenses/spectrum

Capital expenditures and expenses for mobile telephone licenses/spectrum for 2021 were 4,630 million euros (3,409 million euros in 2020).

Capex is broken down as follows by operating segment:

(million euros)	2021		2020		Change
		% weight		% weight	
Domestic	3,377	72.9	2,748	*80.6*	629
Brazil	1,253	27.1	661	*19.4*	592
Other Operations	—	—	—	—	—
Adjustments and eliminations	—	—	—	—	—
Consolidated Total	**4,630**	**100.0**	**3,409**	**100.0**	**1,221**
% of Revenues	*30.2*		*21.6*		*8.6pp*

In particular:

- the **Domestic Business Unit** records capital expenditure for 3,377 million euros, +629 million euros on 2020, an increase mainly due to the development of the FTTC/FTTH networks and payment of licenses for 240 million euros to the Italian Ministry of Economic Development (MISE) for the extension of rights of use relating to frequencies (2100 MHz);
- the **Brazil Business Unit** posted capital expenditures in 2021 of 1,253 million euros (661 million euros for 2020). Excluding the impact of changes in exchange rates (-49 million euros), capex grew by 641 million euros, mainly to strengthen the mobile ultrabroadband infrastructure and the development of the fixed broadband business of TIM Live. More specifically, the auction for 5G frequencies in Brazil, which closed in November 2021, saw the Brazil Business Unit committed to a total investment of 564 million euros for frequencies along with the related commercial commitments to the entities established to pursue the infrastructure projects.

Change in net operating working capital

The change in net operating working capital for 2021 reflects a positive change of 733 million euros (+772 million euros in 2020), mainly as a consequence of the change in trade payables and for mobile telephone licenses/spectrum (+953 million euros), partly offset by the negative change in other operating receivables/payables (-438 million euros).

Sale of investments and other disposals flow

This is positive for 1,935 million euros and mainly includes the collection made on the sale of 37.5% of FiberCop S.p.A. by TIM S.p.A. to the indirect subsidiary of KKR Global Infrastructure Investors III L.P. (1,759 million euros) and the collection consequent to the sale of 51% of I-Systems (formerly FiberCo Soluções de Infraestrutura) by TIM S.A. to IHS Fiber Brasil - Cessão de Infraestruturas Ltda. ("IHS Brasil") (172 million euros). Further details are provided in the Note on “Investments” in the TIM Group Consolidated Financial Statements at December 31, 2021.

In 2020, the flow was positive for 1,294 million euros and mainly benefited from the deconsolidation of INWIT S.p.A., as well as collections deriving from sales by the TIM Group of INWIT shares totaling approximately 7.3% of the share capital.

Share capital increases/reimbursements, including incidental costs

In 2021, the flow is negative for 42 million euros and refers to the partial distribution of reserves of the subsidiary Daphne 3 - in which TIM has contributed a total of 30.2% of INWIT shares - to a shareholder outside the Group.

In 2020, the flow was positive for 1,164 million euros, mainly as a consequence of the contribution made by shareholders outside the Group to the share capital increases of subsidiaries. More specifically, they included the increase in capital of Daphne 3.

Increases in lease contracts

In 2021, the item came to 667 million euros (1,288 million euros in 2020) and includes the greater value of rights of use entered following new passive lease contracts, increases in lease charges and the renegotiation of existing lease contracts.

Financial expenses, income taxes and other net non-operating requirements flow

In 2021, the flow has a negative balance for a total of 1,061 million euros (positive for 283 million euros in 2020). It mainly includes outflows relative to financial management components, as well as the payment of income taxes and changes in non-operating payables and receivables.

Sales of receivables to factoring companies

It should be noted that sales without recourse of trade receivables to factoring companies completed during 2021 resulted in a positive effect on the adjusted net financial debt at December 31, 2021 amounting to 1,536 million euros (1,970 million euros at December 31, 2020).

Net financial debt

Net financial debt is composed as follows:

(million euros)	12/31/2021 (a)	12/31/2020 (b)	Changes (a-b)
Non-current financial liabilities			
Bonds	17,383	18,856	(1,473)
Amounts due to banks, other financial payables and liabilities	6,054	4,799	1,255
Non-current financial liabilities for lease contracts	4,064	4,199	(135)
	27,501	**27,854**	**(353)**
Current financial liabilities (*)			
Bonds	3,512	988	2,524
Amounts due to banks, other financial payables and liabilities	2,433	2,689	(256)
Current financial liabilities for lease contracts	651	631	20
	6,596	**4,308**	**2,288**
Financial liabilities directly associated with Discontinued operations/Non-current assets held for sale	—	—	—
Total Gross financial debt	**34,097**	**32,162**	**1,935**
Non-current financial assets			
Securities other than investments	—	—	—
Non-current financial receivables arising from lease contracts	(45)	(43)	(2)
Financial receivables and other financial assets	(2,285)	(2,267)	(18)
	(2,330)	**(2,310)**	**(20)**
Current financial assets			
Securities other than investments	(2,249)	(1,092)	(1,157)
Current financial receivables arising from lease contracts	(56)	(55)	(1)
Financial receivables and other financial assets	(142)	(162)	20
Cash and cash equivalents	(6,904)	(4,829)	(2,075)
	(9,351)	**(6,138)**	**(3,213)**
Financial assets relating to Discontinued operations/Non-current assets held for sale	—	—	—
Total financial assets	**(11,681)**	**(8,448)**	**(3,233)**
Net financial debt carrying amount	**22,416**	**23,714**	**(1,298)**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	*(229)*	*(388)*	*159*
Adjusted net financial debt	**22,187**	**23,326**	**(1,139)**
Breakdown as follows:			
Total adjusted gross financial debt	**32,564**	**30,193**	**2,371**
Total adjusted financial assets	**(10,377)**	**(6,867)**	**(3,510)**
(*) of which current portion of medium/long-term debt:			
Bonds	*3,512*	*988*	*2,524*
Amounts due to banks, other financial payables and liabilities	*898*	*1,541*	*(643)*
Current financial liabilities for lease contracts	*648*	*628*	*20*

The financial risk management policies of the TIM Group are aimed at minimizing market risks, fully hedging exchange rate risk, and optimizing interest rate exposure through appropriate diversification of the portfolio, which is also achieved by using carefully selected derivative financial instruments. Such instruments, it should be stressed, are not used for speculative purposes and all have an underlying, which is hedged.

In addition, to determine its exposure to interest rates, the Group sets an optimum composition for the fixed-rate and variable-rate debt structure and uses derivative financial instruments to achieve that composition. Taking into account the Group's operating activities, the optimum mix of medium/long-term non-current financial liabilities has been established, on the basis of the nominal amount, at a range of 65%–85% for the fixed-rate component and 15%–35% for the variable-rate component.

In managing market risks, the Group has adopted Guidelines for the "Management and control of financial risk" and mainly uses IRS and CCIRS derivative financial instruments.

To provide a better representation of the true performance of Net Financial Debt, in addition to the usual indicator (renamed "Net financial debt carrying amount"), the TIM Group reports a measure called "Adjusted net financial debt", which neutralizes the effects caused by the volatility of financial markets. Given that some components of the fair value measurement of derivatives (contracts for setting the exchange and interest rate for contractual flows) and of derivatives embedded in other financial instruments do not result in actual monetary settlement, the Adjusted net financial debt excludes these purely accounting and non-monetary effects (including the effects of IFRS 13 – Fair Value Measurement) from the measurement of derivatives and related financial assets/liabilities.

For further details, see the "Alternative performance indicators" chapter.

Adjusted net financial debt amounted to 22,187 million euros at December 31, 2021, **a decrease of 1,139 million euros compared to December 31, 2020** (23,326 million euros). The reduction in debt, brought about by the generation of operating cash, the completion of the purchase by KKR Infrastructure of 37.5% of FiberCop from TIM for an equivalent value of 1,759 million euros and the sale for 172 million euros in Brazil of 51% of the company I-Systems S.A. (formerly FiberCo), owner of the secondary fiber network, has been partially limited by the payments of dividends (368 million euros), the sanction (116 million euros) connected with the Antitrust Case A514 (alleged abuse of a dominant market position on the wholesale access services market and for retail services of the broadband and ultrabroadband fixed network), substitute tax on the realigned value of assets (231 million euros), the extension of the rights of use of frequencies on the 2100 MHz bandwidth (240 million euros), the installment on the 5G license (55 million euros) and the purchase under auction of frequencies for the implementation of 5G in Brazil (140 million euros).
For a better understanding of the information, the table below shows the various ways by which the Net Financial Debt can be shown:

(million euros)	12/31/2021 (a)	12/31/2020 (b)	Changes (a-b)
Net financial debt carrying amount	22,416	23,714	(1,298)
Reversal of fair value measurement of derivatives and related financial liabilities/assets	*(229)*	*(388)*	*159*
Adjusted net financial debt	22,187	23,326	(1,139)
Leasing	*(4,614)*	*(4,732)*	*118*
Adjusted net financial debt - After Lease	17,573	18,594	(1,021)

Net financial debt carrying amount amounted to 22,416 million euros at December 31, 2021, a decrease of 1,298 million euros compared to December 31, 2020 (23,714 million euros). Reversal of the fair value measurement of derivatives and related financial liabilities/assets recorded an annual change of 159 million euros, substantially following the rise in Euro interest rates, which, coupled with the final calculation of interest flows, effectively revalue the cash flow hedges. This change is adjusted by the booked Net Financial Debt with no monetary effect.

Adjusted Net Financial Debt – After Lease (net of the impact of all leases), which is a parameter adopted by main European peers, was equal to 17,573 million euros at December 31, 2021, down by 1,021 million euros compared to December 31, 2020 (18,594 million euros).

Gross financial debt

Bonds

Bonds at December 31, 2021 totaled 20,895 million euros (19,844 million euros at December 31, 2020). Repayments totaled a nominal 20,338 million euros (19,249 million euros at December 31, 2020).

The change in bonds during 2021 was as follows:

(millions of original currency)	Currency	Amount	Issue date
New issues			
Telecom Italia S.p.A. 1,000 million euros 1.625%	Euro	1,000	1/18/2021
TIM S.A. 1,600 million BRL IPCA+4.1682%	BRL	1,600	6/15/2021

On January 18, 2021, TIM issued its first 8-year Sustainability Bond for an amount of 1 billion euros, coupon 1.625%.

(millions of original currency)	Currency	Amount	Repayment date
Repayments			
Telecom Italia S.p.A. 564 million euros 4.500% [1]	Euro	564	1/25/2021

(1) Net of buy-backs totaling 436 million euros made by the company in 2015.

With reference to Telecom Italia S.p.A. 2002–2022 bonds, reserved for subscription by employees of the Group, the nominal amount at December 31, 2021 was 214 million euros, down by 3 million euros compared to December 31, 2020 (217 million euros).

Note that on December 31, 2021, the "Telecom Italia S.p.A. 2002-2022 Floating Rate bonds, Open Special series, reserved for subscription by employees of the Telecom Italia Group, in service or retired" bond was closed and the bonds fully repaid starting January 1, 2022, in accordance with the relevant Regulation.

Revolving Credit Facility and Term Loan

The following table shows committed credit lines available at December 31, 2021:

(billion euros)	12/31/2021		12/31/2020	
	Agreed	Drawn down	Agreed	Drawn down
Sustainability-linked RCF - maturing May 2026	4.0	—	—	—
Revolving Credit Facility – maturing January 2023	—	—	5.0	—
Bridge to Bond Facility – maturing May 2021	—	—	1.7	—
Total	**4.0**	—	**6.7**	—

At December 31, 2021, TIM had bilateral Term Loans for 850 million euros with various banking counterparties and an overdraft facility for 200 million euros, drawn down for the full amount.

On January 19, 2021, TIM entirely canceled the credit line for 1.7 billion euros, which was not used, stipulated on May 18, 2020 as bridge to bond for subsequent issues on the bond market and an initial maturity of 12 months with an option of extension for another 12 months.

On May 13, 2021, TIM extended the Revolving Credit Facility by 5 years, reducing the amount to 4 billion euros and making it the Group's first ever ESG-linked credit facility.

On December 23, 2021, the subsidiary FiberCop S.p.A. signed a new 5-year Term Loan for an amount of 1.5 billion euros with a pool of international banks, fully drawn down.

Maturities of financial liabilities and average cost of debt

The average maturity of non-current financial liabilities (including the current portion of medium/long-term financial liabilities due within 12 months) was 6.53 years.

The average cost of the Group's debt, considered as the cost for the year calculated on an annual basis and resulting from the ratio of debt-related expenses to average exposure, stood at approximately 3.7%, while the average cost of the Group's debt "After Lease" was equal to approximately 3.4%.

Current financial assets and liquidity margin

The TIM Group's available **liquidity margin** amounted to 13,153 million euros, equal to the sum of:

- "Cash and cash equivalents" and "Current securities other than investments" for a total of 9,153 million euros (5,921 million euros at December 31, 2020), also including 838 million euros in repurchase agreements expiring by April 2022;
- Sustainability-linked Revolving Credit Facility amounting to 4,000 million euros, totally available.

This margin is sufficient to cover Group financial liabilities (current and otherwise) falling due over the next 36 months.

In particular:

Cash and cash equivalents amounted to 6,904 million euros (4,829 million euros at December 31, 2020). The different technical forms of investing available cash can be analyzed as follows:

- **maturities**: investments have a maximum maturity of three months;
- **counterparty risk**: investments by the European companies are made with leading banking, financial and industrial institutions with high credit quality. Investments by the companies in South America are made with leading local counterparties;
- **Country risk**: deposits have been made mainly in major European financial markets.

Current securities other than investments amounted to 2,249 million euros (1,092 million euros at December 31, 2020): These forms of investment represent alternatives to the investment of liquidity with the aim of improving returns. They included a total of 840 million euros of treasury bonds held by Telecom Italia Finance S.A., 675 million euros of bonds purchased by Telecom Italia Finance S.A. with different maturities, all with an active market and consequently readily convertible into cash, and 734 million euros of investments in monetary funds by the Brazil Business Unit. The purchases of the above government bonds, which, pursuant to Consob Communication no. DEM/11070007 of August 5, 2011, represent investments in "Sovereign debt securities", have been made in accordance with the Guidelines for the "Management and control of financial risk" adopted by the TIM Group.

During the fourth quarter of 2021, **adjusted net financial debt** came to 22,187 million euros up 23 million euros on September 30, 2021 (22,164 million euros): the stability of the debt level derives from the attenuation of the positive effects deriving from the operative and financial management following the assessment over the contractual terms of finance lease liabilities. In addition, the transactions should be noted carried out in Brazil, such as the sale of 51% of the company I-Systems S.A. (formerly FiberCo) and the acquisition under auction of the frequencies for the implementation of 5G.

(million euros)	12/31/2021 (a)	9/30/2021 (b)	Changes (a-b)
Net financial debt carrying amount	**22,416**	**22,492**	**(76)**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	*(229)*	*(328)*	*99*
Adjusted net financial debt	**22,187**	**22,164**	**23**
Breakdown as follows:			
Total adjusted gross financial debt	**32,564**	**29,107**	**3,457**
Total adjusted financial assets	**(10,377)**	**(6,943)**	**(3,434)**

CONSOLIDATED DATA – TABLES OF DETAIL

To follow, the Separate Consolidated Income Statement, Consolidated Statements of Comprehensive Income, Consolidated Statement of Financial Position, Consolidated Statement of Cash Flows as well as Other Information of the TIM Group.

Separate Consolidated Income Statement

(million euros)	2021	2020	Changes (a-b)	
	(a)	(b)	absolute	%
Revenues	**15,316**	**15,805**	**(489)**	**(3.1)**
Other income	272	211	61	28.9
Total operating revenues and other income	**15,588**	**16,016**	**(428)**	**(2.7)**
Acquisition of goods and services	(6,550)	(6,173)	(377)	(6.1)
Employee benefits expenses	(2,941)	(2,639)	(302)	(11.4)
Other operating expenses	(1,502)	(961)	(541)	(56.3)
Change in inventories	10	(6)	16	—
Internally generated assets	475	502	(27)	(5.4)
Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)	**5,080**	**6,739**	**(1,659)**	**(24.6)**
Depreciation and amortization	(4,490)	(4,616)	126	2.7
Gains/(losses) on disposals of non-current assets	1	(11)	12	—
Impairment reversals (losses) on non-current assets	(4,120)	(8)	(4,112)	—
Operating profit (loss) (EBIT)	**(3,529)**	**2,104**	**(5,633)**	**—**
Share of profits (losses) of associates and joint ventures accounted for using the equity method	38	18	20	—
Other income (expenses) from investments	126	454	(328)	(72.2)
Finance income	1,124	1,143	(19)	(1.7)
Finance expenses	(2,274)	(2,322)	48	2.1
Profit (loss) before tax from continuing operations	**(4,515)**	**1,397**	**(5,912)**	**—**
Income tax expense	(3,885)	5,955	(9,840)	—
Profit (loss) from continuing operations	**(8,400)**	**7,352**	**(15,752)**	**—**
Profit (loss) from Discontinued operations/Non-current assets held for sale	—	—	—	—
Profit/(Loss) for the year	**(8,400)**	**7,352**	**(15,752)**	**—**
Attributable to:				
Owners of the Parent	**(8,652)**	**7,224**	**(15,876)**	**—**
Non-controlling interests	252	128	124	—

Consolidated Statements of Comprehensive Income

In accordance with IAS 1 (Presentation of Financial Statements), the following Consolidated Statements of Comprehensive Income include the Profit (loss) for the year as shown in the Separate Consolidated Income Statement and all non-owner changes in equity.

(million euros)		2021	2020
Profit/(Loss) for the year	(a)	(8,400)	7,352
Other components of the Consolidated Statements of Comprehensive Income			
Other components that will not be reclassified subsequently to Separate Consolidated Income Statement			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		7	(4)
Income tax effect		—	—
	(b)	7	(4)
Remeasurements of employee defined benefit plans (IAS19):			
Actuarial gains (losses)		(8)	6
Income tax effect		(3)	(1)
	(c)	(11)	5
Share of other comprehensive income (losses) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Income tax effect		—	—
	(d)	—	—
Total other components that will not be reclassified subsequently to Separate Consolidated Income Statement	(e=b+c+d)	(4)	1
Other components that will be reclassified subsequently to Separate Consolidated Income Statement			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		28	5
Loss (profit) transferred to Separate Consolidated Income Statement		(6)	—
Income tax effect		—	—
	(f)	22	5
Hedging instruments:			
Profit (loss) from fair value adjustments		658	(253)
Loss (profit) transferred to Separate Consolidated Income Statement		(365)	373
Income tax effect		(71)	(30)
	(g)	222	90
Exchange differences on translating foreign operations:			
Profit (loss) on translating foreign operations		50	(1,612)
Loss (profit) on translating foreign operations transferred to Separate Consolidated Income Statement		—	—
Income tax effect		—	—
	(h)	50	(1,612)
Share of other comprehensive income (losses) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Loss (profit) transferred to Separate Consolidated Income Statement		—	—
Income tax effect		—	—
	(i)	—	—
Total other components that will be reclassified subsequently to Separate Consolidated Income Statement	(k=f+g+h+i)	294	(1,517)
Total other components of the Consolidated Statements of Comprehensive Income	(m=e+k)	290	(1,516)
Total comprehensive income (loss) for the year	(a+m)	(8,110)	5,836
Attributable to:			
Owners of the Parent		(8,374)	6,199
Non-controlling interests		264	(363)

Consolidated Statement of Financial Position

(million euros)		12/31/2021 (a)	12/31/2020 (b)	Changes (a-b)
Assets				
Non-current assets				
Intangible assets				
Goodwill		18,568	22,847	(4,279)
Intangible assets with a finite useful life		7,147	6,740	407
		25,715	**29,587**	**(3,872)**
Tangible assets				
Property, plant and equipment owned		**13,311**	**13,141**	**170**
Rights of use assets		**4,847**	**4,992**	**(145)**
Other non-current assets				
Investments in associates and joint ventures accounted for using the equity method		2,979	2,728	251
Other investments		156	54	102
Non-current financial receivables arising from lease contracts		45	43	2
Other non-current financial assets		2,285	2,267	18
Miscellaneous receivables and other non-current assets		2,266	2,114	152
Deferred tax assets		3,513	7,496	(3,983)
		11,244	**14,702**	**(3,458)**
Total Non-current assets	**(a)**	**55,117**	**62,422**	**(7,305)**
Current assets				
Inventories		282	242	40
Trade and miscellaneous receivables and other current assets		4,358	4,346	12
Current income tax receivables		79	86	(7)
Current financial assets				
Current financial receivables arising from lease contracts		*56*	*55*	*1*
Securities other than investments, other financial receivables and other current financial assets		*2,391*	*1,254*	*1,137*
Cash and cash equivalents		*6,904*	*4,829*	*2,075*
		9,351	**6,138**	**3,213**
Current assets sub-total		**14,070**	**10,812**	**3,258**
Discontinued operations /Non-current assets held for sale				
of a financial nature		—	—	—
of a non-financial nature		—	—	—
		—	**—**	**—**
Total Current assets	**(b)**	**14,070**	**10,812**	**3,258**
Total Assets	**(b+a)**	**69,187**	**73,234**	**(4,047)**

(million euros)		12/31/2021 (a)	12/31/2020 (b)	Changes (a-b)
Equity and Liabilities				
Equity				
Equity attributable to owners of the Parent		17,414	26,215	(8,801)
Non-controlling interests		4,625	2,625	2,000
Total Equity	**(c)**	**22,039**	**28,840**	**(6,801)**
Non-current liabilities				
Non-current financial liabilities for financing contracts and others		23,437	23,655	(218)
Non-current financial liabilities for lease contracts		4,064	4,199	(135)
Employee benefits		699	724	(25)
Deferred tax liabilities		245	277	(32)
Provisions		926	770	156
Miscellaneous payables and other non-current liabilities		1,413	3,602	(2,189)
Total Non-current liabilities	**(d)**	**30,784**	**33,227**	**(2,443)**
Current liabilities				
Current financial liabilities for financing contracts and others		5,945	3,677	2,268
Current financial liabilities for lease contracts		651	631	20
Trade and miscellaneous payables and other current liabilities		9,473	6,588	2,885
Current income tax payables		295	271	24
Current liabilities sub-total		**16,364**	**11,167**	**5,197**
Liabilities directly associated with Discontinued operations/Non-current assets held for sale				
of a financial nature		—	—	—
of a non-financial nature		—	—	—
		—	**—**	**—**
Total Current Liabilities	**(e)**	**16,364**	**11,167**	**5,197**
Total Liabilities	**(f=d+e)**	**47,148**	**44,394**	**2,754**
Total Equity and Liabilities	**(c+f)**	**69,187**	**73,234**	**(4,047)**

Consolidated Statements of Cash Flows

(million euros)		2021	2020
Cash flows from operating activities:			
Profit (loss) from continuing operations		(8,400)	7,352
Adjustments for:			
Depreciation and amortization		4,490	4,616
Impairment losses (reversals) on non-current assets (including investments)		4,118	36
Net change in deferred tax assets and liabilities		3,894	(6,538)
Losses (gains) realized on disposals of non-current assets (including investments)		(120)	(441)
Share of profits (losses) of associates and joint ventures accounted for using the equity method		(38)	(18)
Change in provisions for employee benefits		(83)	(628)
Change in inventories		(39)	20
Change in trade receivables and other net receivables		257	484
Change in trade payables		337	(231)
Net change in income tax receivables/payables		(313)	708
Net change in miscellaneous receivables/payables and other assets/liabilities		233	1,191
Cash flows from (used in) operating activities	**(a)**	**4,336**	**6,551**
Cash flows from investing activities:			
Purchases of intangible, tangible and rights of use assets on a cash basis		(4,013)	(3,477)
Capital grants received		3	24
Acquisition of control of companies or other businesses, net of cash acquired		—	(7)
Acquisitions/disposals of other investments		(100)	(11)
Change in financial receivables and other financial assets (excluding hedging and non-hedging derivatives under financial assets)		(1,183)	(251)
Proceeds from sale that result in a loss of control of subsidiaries or other businesses, net of cash disposed of		172	(33)
Proceeds from sale/repayments of intangible, tangible and other non-current assets		4	678
Cash flows from (used in) investing activities	**(b)**	**(5,117)**	**(3,077)**
Cash flows from financing activities:			
Change in current financial liabilities and other		704	(1,461)
Proceeds from non-current financial liabilities (including current portion)		4,082	1,470
Repayments of non-current financial liabilities (including current portion)		(3,072)	(2,790)
Changes in hedging and non-hedging derivatives		103	—
Share capital proceeds/reimbursements (including subsidiaries)		(42)	1,164
Dividends paid		(368)	(390)
Changes in ownership interests in consolidated subsidiaries		1,757	(2)
Cash flows from (used in) financing activities	**(c)**	**3,164**	**(2,009)**
Cash flows from (used in) Discontinued operations/Non-current assets held for sale	**(d)**	**—**	**—**
Aggregate cash flows	**(e=a+b+c+d)**	**2,383**	**1,465**
Net cash and cash equivalents at beginning of the year	**(f)**	**4,508**	**3,202**
Net foreign exchange differences on net cash and cash equivalents	**(g)**	13	(159)
Net cash and cash equivalents at end of the year	**(h=e+f+g)**	**6,904**	**4,508**

Purchases of intangible, tangible and rights of use assets

(million euros)	2021	2020
Purchase of intangible assets	(1,886)	(1,197)
Purchase of tangible assets	(2,665)	(2,138)
Purchase of rights of use assets	(746)	(1,362)
Total purchase of intangible, tangible and rights of use assets on an accrual basis	(5,297)	(4,697)
Change in payables arising from purchase of intangible, tangible and rights of use assets	1,284	1,220
Total purchases of intangible, tangible and rights of use assets on a cash basis	(4,013)	(3,477)

Additional Cash Flow information

(million euros)	2021	2020
Income taxes (paid) received	(242)	223
Interest expense paid	(1,440)	(1,520)
Interest income received	437	448
Dividends received	90	256

Analysis of Net Cash and Cash Equivalents

(million euros)	2021	2020
Net cash and cash equivalents at the start of the year:		
Cash and cash equivalents - from continuing operations	4,829	3,138
Bank overdrafts repayable on demand – from continuing operations	(321)	(1)
Cash and cash equivalents - from Discontinued operations/Non-current assets held for sale	—	65
Bank overdrafts repayable on demand – from Discontinued operations/Non-current assets held for sale	—	—
	4,508	**3,202**
Net cash and cash equivalents at the end of the year:		
Cash and cash equivalents - from continuing operations	6,904	4,829
Bank overdrafts repayable on demand – from continuing operations	—	(321)
Cash and cash equivalents - from Discontinued operations/Non-current assets held for sale	—	—
Bank overdrafts repayable on demand – from Discontinued operations/Non-current assets held for sale	—	—
	6,904	**4,508**

The additional disclosures required by IAS 7 are provided in the Note “Net Financial Debt” to the TIM Group Consolidated Financial Statements at December 31, 2021.

Other information

Average salaried workforce

(equivalent number)	2021 (a)	2020 (b)	Changes (a-b)
Average salaried workforce – Italy	38,826	40,140	(1,314)
Average salaried workforce – Outside Italy	9,116	8,959	157
Total average salaried workforce [1]	**47,942**	**49,099**	**(1,157)**

(1) Includes agency contract workers: average 12 employees in Italy in 2021; average 9 employees in Italy in 2020.

Headcount at year end

(number)	12/31/2021 (a)	12/31/2020 (b)	Change (a-b)
Headcount – Italy	42,347	42,680	(333)
Headcount – Outside Italy	9,582	9,667	(85)
Total headcount at year end [1]	**51,929**	**52,347**	**(418)**

(1) Includes agency contract workers: 16 employees in Italy at 31/12/2021; 14 employees in Italy at 12/31/2020.

Headcount at year end – Breakdown by Business Unit

(number)	12/31/2021 (a)	12/31/2020 (b)	Change (a-b)
Domestic	42,591	42,925	(334)
Brazil	9,325	9,409	(84)
Other Operations	13	13	—
Total	**51,929**	**52,347**	**(418)**

AFTER LEASE INDICATORS

TIM Group, in addition to the conventional financial performance measures established by the IFRS, uses certain alternative performance measures in order to present a better understanding of the trend of operations and financial condition. Specifically, following the adoption of IFRS 16, the TIM Group presents the following additional alternative performance measures:

EBITDA ADJUSTED AFTER LEASE - TIM GROUP

(million euros)	4th Quarter 2021	4th Quarter 2020	Changes		2021	2020	Changes	
			absolute	%			absolute	%
ORGANIC EBITDA - excluding non-recurring items	1,382	1,770	(388)	(21.9)	6,223	6,882	(659)	(9.6)
Lease payments	(211)	(195)	(16)	(8.2)	(819)	(772)	(47)	(6.1)
EBITDA adjusted After Lease (EBITDA-AL)	1,171	1,575	(404)	(25.7)	5,404	6,110	(706)	(11.6)

EBITDA ADJUSTED AFTER LEASE - DOMESTIC

(million euros)	4th Quarter 2021	4th Quarter 2020	Changes		2021	2020	Changes	
			absolute	%			absolute	%
ORGANIC EBITDA - excluding non-recurring items	999	1,397	(398)	(28.5)	4,867	5,583	(716)	(12.8)
Lease payments	(128)	(126)	(2)	(1.6)	(509)	(503)	(6)	(1.2)
EBITDA adjusted After Lease (EBITDA-AL)	871	1,271	(400)	(31.5)	4,358	5,080	(722)	(14.2)

EBITDA ADJUSTED AFTER LEASE - BRAZIL

(million euros)	4th Quarter 2021	4th Quarter 2020	Changes		2021	2020	Changes	
			absolute	%			absolute	%
ORGANIC EBITDA - excluding non-recurring items	388	374	14	3.4	1,368	1,306	62	4.7
Lease payments	(83)	(69)	(14)	(20.3)	(310)	(269)	(41)	(15.2)
EBITDA adjusted After Lease (EBITDA-AL)	305	305	—	—	1,058	1,037	21	2.0

ADJUSTED NET FINANCIAL DEBT AFTER LEASE - TIM GROUP

(million euros)	12/31/2021	12/31/2020	Changes
Adjusted net financial debt	22,187	23,326	(1,139)
Leasing	(4,614)	(4,732)	118
Adjusted net financial debt - After Lease	17,573	18,594	(1,021)

EQUITY FREE CASH FLOW AFTER LEASE - TIM GROUP

(million euros)	4th Quarter 2021	4th Quarter 2020	Changes	2021	2020	Changes
Equity Free Cash Flow	172	748	(576)	632	2,414	(1,782)
Leasing	(138)	(126)	(12)	(570)	(799)	229
Equity Free Cash Flow After Lease	34	622	(588)	62	1,615	(1,553)

SUSTAINABILITY ASPECTS

TIM is pursuing digital transformation as a key to social and economic development, reducing its environmental impact and assisting the communities in which it operates in the move towards decarbonization, flanked with the challenge of using the Group's infrastructure and skills to contribute towards the digital evolution of our company, an evolution that starts out from digital inclusion.

The continuous search for energy efficiency, the limitation of its emissions and the increasing contribution of renewable energy, allow TIM to strive to achieve carbon neutrality by 2030 and net zero by 2040, by improving efficiency indicators and developing infrastructure and Data Centers to provide more and more services with lower resource use.

Since 2020, the Group has put sustainable development right at the heart of its long-term strategy, setting social, environmental and governance goals and integrating them with other objectives of the Industrial Plan. The Sustainability Plan is TIM's concrete contribution towards achieving the United Nations 2030 Agenda goals for Sustainable Development, a commitment that is constantly recognized by the inclusion of the share in the main ESG scoring and indexes for almost 20 years.

The update of TIM's ESG ambitions are set out in new goals for the three-year period 2022-2024, which are hinged on the pillars of fighting climate change and the circular economy, digital inclusion and the strengthening of governance instruments.

The Plan's objectives, where possible with reference to 2021, were all achieved, with the excellent performance of the "eco-efficiency" and "engagement" clusters, with the latter improving by 20 points compared to 2019, exceeding the growth target expected.

Materiality analysis

As envisaged by Italian Legislative Decree no. 254/2016 and in accordance with the requirements of the Global Reporting Initiative Standards, again in 2021 TIM performed its Materiality Analysis aimed at identifying the priority governance and social-environmental topics.

Process to identify the material topics

The analysis for the determination of the 2021 topics not only confirmed those recorded in 2020 but also led to the change of some names and descriptions to incorporate new aspects and declinations or emerging sub-topics.

First, the taxonomy[1] to adopt in the semantic engine was updated. In addition to considering the most recent versions of the references in sustainability and digital fields used in 2020[2], their number was increased, with new sources considered to be particularly important[3].

For the first time, moreover, in a bid to strengthen the entire process of structuring taxonomy, a university technical committee was established.

Through the iterations and on the basis of occurrences[4] present in the more than 200 documents analyzed, the new tree of relevant topics has been identified:

- *Climate change*
- *Cyberbullying, child pornography, online gambling*
- *Human rights*
- *Ethics and corporate governance*
- *Digital inclusion*
- *Infrastructures and emerging technologies*
- *Work and the human capital*
- *Equal opportunities in the company*
- *Procurement policies relating to Environmental Social Governance (ESG) topics*

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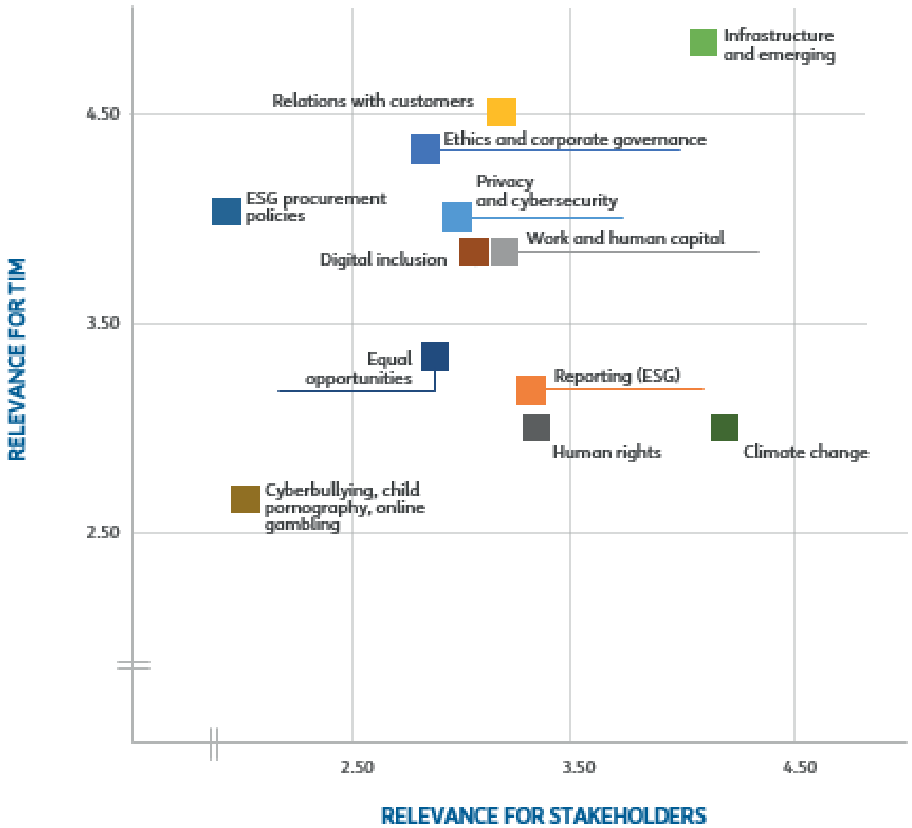
[1] Each taxonomy is made up of interrelated concepts and keywords with different correlation and significance levels. Each taxonomy was constructed using both Italian and English terms.
[2] Such as, for example, the Global Reporting Initiative Standard, ISO 26000, the Sustainable Development Goals or the DJSI - Dow Jones Sustainability Index.
[3] Such as the EU Taxonomy or the TCFD - Task Force on Climate Related Financial Disclosures.
[4] Namely the number of times that a concept (or a specific term) is detected within the document by the semantic engine. They are an indication of the significance of the topic detected in the context of the document.

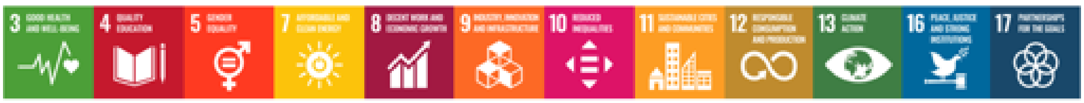
- *Privacy and cybersecurity*
- *Relations with customers*
- *Environmental Social Governance (ESG) Reports*

In order to obtain the significance of the material topics for the Company and external stakeholders, consultation activities have been started: internally, through the compilation of an on line questionnaire, a significant sample of representatives of the company management team were called to express an opinion; externally, the standard on-line questionnaire, the answers to which were appropriately weighted, was enriched by big data analysis[5], relying on our collaborative platform[6].

Results at a glance

Below is the 2021 TIM Materiality Matrix[7]





The key issues for the Group and its stakeholders reflect the Sustainable Development Goals which TIM believes it can help achieve to a greater extent through its own personnel, technologies and services, adopting business policies that promote and safeguard human rights and the environment.

Specifically, the relevant Goals are:

- *No. 3: Ensure healthy lives and promote well-being for all and at all ages;*
- *No. 4: Quality education;*

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[5] Thanks to the use of the TIM Data Room, the point of view of stakeholders on the topics was investigated, examining both their declarations given in the related institutional sites and the discussions published on the social networks.
[6] On the TIM collaborative platform, stakeholders relating to the TIM Group categories were engaged and consulted.
[7] Note that the analysis of the institutional sources has revealed the value of joining some topics together that, following the effects of the COVID-19 pandemic and under the scope of the current context, were found to be no longer different but rather one the consequence of the other. This is why in 2021, 12 topics were identified as compared with the 17 of 2020.

- *No. 5: Gender equality;*
- *No. 7: Affordable and clean energy;*
- *No. 8: Decent work and economic growth;*
- *No. 9: Industry, innovation and infrastructure;*
- *No. 10: Reduced inequalities;*
- *No. 11: Sustainable cities and communities;*
- *No. 12: Responsible consumption and production;*
- *No. 13: Take urgent steps to combat climate change and its consequences;*
- *No. 16: Peace, justice and strong institutions;*
- *No. 17: Strengthen the means of implementation and renew the world partnership for sustainable development.*

Validation and Review

The validation of the topics and of the entire materiality analysis process was carried out by the Investor Relations' Sustainability Planning and Performance Index Analysis department, with the support of RE2N and TIM Data Room. The results given in the Matrix were validated by Sustainability and Control and Risks Committees and, after approval, the Matrix was then used as a base on which to ensure the ESG construction of the Group's Strategic Plan, as well as the 2021 non-financial report.

The review phase is due to take place as a preparatory stage prior to the next reporting cycle, with the aim of submitting the results of the analyses carried out, updated in the following year, to specific stakeholder engagement activities.

RESEARCH AND DEVELOPMENT

Approach to innovation, choice of topics, innovation governance process

The research and development of innovative technologies and services, processes and business models, represents a key factor in the keeping up with the profound transformations of ICT, as well as an asset acting as a driving force for customers and the countries in which the Group operates, helping to overcome the socio-cultural barriers that limit the opportunity to participate in the information society and enjoyment of the relative benefits. The paragraph describes the business for TIM in Italy and TIM S.A. in Brazil.

TIM has always considered innovation to be a strategic asset and takes great care in governing individual aspects, from its strategic role to its responsibility, objectives and policy.

In 2021, TIM continued to strengthen an innovation model that leverages the eco-system concept, which is fundamental to nurturing a virtuous circle for scouting, incubating and planning innovative initiatives. This is realized, on the one hand, through labs as multi-site centers open virtually and connected in a unique digital environment to support open innovation, and on the other hand, through collaboration with Universities of excellence, thus creating a synergy oriented to the digital transformation of society, and which certifies TIM as a reference partner in Italy.

In line with this, the Group has taken action in several ways:

- by continuing the action to strengthen internal innovation lines, focusing the activity of laboratories and research groups on the fundamental trends in the evolution of fixed and mobile networks towards 5G standards[1], Open Ran and Edge Cloud, on the issues of service platforms and new operation systems;
- by selecting, accelerating and co-creating innovative ideas, products and services from the world of startups[2] and small and medium-sized enterprises (SMEs), in line with emerging innovative trends of interest to TIM, in order to improve the commercial offer and internal processes, and encourage the growth of the Italian startup ecosystem through the TIM WCap acceleration program and venture capital investments made by TIM Ventures, the corporate venture capital arm[3] of TIM.

Innovation management is mainly overseen by the Innovation Standard&IPR and Portfolio department the Chief Technology & Operation Office, and involves different stakeholders inside and outside the Company:

- other areas of the company involved from time to time, both as internal customers for the innovation output solution and as centers of expertise on the topic;
- traditional and digital partners, for the joint go2market[4] of digital services;
- research centers and universities, for cooperation and joint projects. In 2021, research contracts were initiated with five Italian universities for a total value of approximately 900,000 euros;
- at international level, a vast set of standardization bodies, associations, alliances, telco open communities, which play a fundamental role in the evolution of the TLC industry/sector for networks, platforms and services, in which TIM collaborates in partnership with the main stakeholders of the sector. In 2021, despite the continuing international crisis due to the pandemic, TIM confirmed its membership of the main standardization bodies and associations with 30 registrations for a total commitment of around 800,000 euros, placing the emphasis on interaction, not only with associations closely linked to the world of telecommunications, but also integrating with other industrial sectors such as the automotive sector and industry 4.0. Participation in international bodies has enabled TIM to increase its intellectual assets, both in terms of the acquisition of know-how and through direct contribution, aimed at promoting its industrial strategy and intellectual property (with the approval of solutions based on TIM patents in standards);
- at the national level there are numerous collaborative relationships with various Ministries, the European Union, Public Bodies (e.g. the National Research Council and local authorities), for the realization of projects financed through participation in calls for tenders and partnership initiatives. In this regard in 2021, the collaboration that was started in 2019 continued with the Competence Industry Manufacturing 4.0, aimed at fostering the transfer of technological skills and innovation in production processes, products and business models, as well as the collaboration with B-REX in Bologna.

TIM's technological evolution is based on its Technology Plan, part of the Industrial Plan; specifically the Technology Plan identifies the technological strategy in terms of guidelines, specific technologies and the roadmap of adoption over a multi-year period. The three-year technological plan is the reference policy for the Group and includes also the technological evolution plans of subsidiaries. The qualitative and/or quantitative goals have been given an annual framework. They are defined so that they can be objectively measured in compliance with quality standards (ISO 9001) and environmental standards (ISO 14001), and operational innovation processes; in the same way as TIM processes, in general, are based on Telemanagement Forum's reference standard E-Tom[5].

Overall, in 2021 TIM committed around 1,300 people to working on technological innovation and engineering in Italy, for an overall investment for the TIM Group of 1,016 million euros.

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1 Acronym for fifth generation mobile technology and standards.

2 New companies characterized by a high degree of innovation

3 TIM Ventures is the TIM Group company that invests in "corporate venture capital".

4 It can be defined as the strategy of an organization, which utilizes internal and external resources (e.g., sales force), in order to deliver its unique value proposition to customers and gain a competitive advantage.

5 The Business Process Framework (eTOM) can be considered an operating model framework for telecommunications service providers; the model describes the required business processes, defines the key elements and how they should interact. eTOM is a standard maintained by the TM Forum, an association for service providers and their suppliers in the telecommunications and entertainment industries.

Innovative technological activities with a focus on 5G, Edge Cloud and Open RAN

In 2021 TIM continued its commitment to innovative activities with a focus on 5G Edge Cloud and Open RAN.

Open RAN and Edge Computing technologies are considered decisive to allow 5G to fulfill its technological and business potential. The Open Radio Access Network (O-RAN) is a concept based on the interoperability and standardization of the elements of the 4G and 5G radio access network, including a unified interconnection standard for open source hardware and software elements from different vendors, and the introduction of network elements that enable more intelligence in the network according to the principles of Artificial Intelligence and Machine Learning. Edge Computing moves traffic and service processing from a centralized cloud to the edge of the network and closer to the customer, allowing full advantage to be taken of high speed and low latency on the network.

TIM, a member of the O-RAN ALLIANCE since 2018, during the first half of 2021 was one of Europe's first operators (and the only one in Italy) to launch an Open RAN (Open Radio Access Network) development program for the innovation of the mobile access network. This initiative will see the Group implement new solutions on its commercial network to benefit customers and businesses thereby speeding up the deployment of digital services.

The initiative is covered by the signing of a Memorandum of Understanding in February 2021 with the main European operators to promote Open RAN technology with the aim of speeding up the implementation of new generation mobile networks, in particular 5G, Cloud and Edge Computing.

In this context, TIM has launched a series of field trials and laboratory tests:

The first trial, launched in April 2021, sees Faenza as the first city in Italy to adopt this open network model, where, thanks to the collaboration with JMA Wireless, a leader in mobile coverage activities and in the development of Open RAN software, TIM uses a solution that decouples the components (hardware and software) of the radio access network, according to a logic of supplier diversification, with a view to fostering a broader industrial ecosystem. In this case, the radio node, on a 4G network, was built by combining the JMA software baseband with the radio units supplied by Microelectronics Technology (MTI). Looking ahead, this activity will also extend to 5G solutions.

In October, the solution was also activated in Saluzzo, in the province of Cuneo, thus creating some of the most extensive Open RAN coverage in Europe.

In September, a solution that follows the architecture and interfaces defined in O-RAN was also activated in Matera, thanks to the collaboration with Mavenir for the RAN components and with MTI for the 4G Radio Unit. This solution, also developed with Dell Technologies, Intel and VMware, makes it possible to decouple the components (hardware and software) of the radio access network, according to a logic of supplier diversification, with a view to fostering a broader industrial ecosystem.

In addition, the first stand-alone Open RAN 5G connection (i.e. completely independent from 4G) was carried out at the TIM Innovation Lab in Turin and will soon be activated also in the field in Matera. The result was achieved on the 3.7 GHz frequencies of TIM's 5G network in collaboration with Mavenir for core and radio networking capabilities, Dell Technologies and Intel for infrastructure, and VMware's Telco Cloud platform for end-to-end control of network functions and software automation.

The development of Open RAN solutions, characterized by an open environment, allows, in line with the objectives of TIM's 2021-2023 plan, to combine the potential of the cloud and Artificial Intelligence with the evolution of the mobile network. This technology allows operators to reinforce security standards, improve network performance and optimize costs in order to provide increasingly advanced digital services, such as those related to new solutions for Industry 4.0, Smart City and autonomous driving.

TIM is also one of the world's first operators (and the only one in Italy) to launch the "European OTIC Lab". The Open Test and Integration Center - OTIC Lab, in line with the standards envisaged by O-RAN ALLIANCE, the set-up of which will be completed during the second half of the year, will be based at the TIM Group Innovation laboratories in Turin and operate in synergy with the entire Open RAN ecosystem (manufacturers, start-ups, system integrators, etc.) in order to try out new solutions and speed up this technology for the development of the new pan-European architecture of the mobile network (5G, Cloud and Edge Computing).

As part of the activities carried out in TIM's OTIC laboratory, during the months of October and November TIM hosted the third edition of the Plugfest. The focus of the Plugfest was the verification of compliance and interoperability of some interfaces defined in O-RAN and the end2end performance testing of some solutions implemented according to the specifications defined within the scope of O-RAN.

Other collaborations and activities with a 5G focus

The Torino City Lab initiative continues[6]TIM's contribution in 2021 focused mainly on the activities of the Turin Casa delle Tecnologie[7]The City of Turin is in fact first in the rankings of the tender of Axis 1 of the Program in support of emerging technologies and the four-year project presented, known as CTE Next (in which TIM is the reference technological partner), has been awarded the MiSE (Ministry of Economic Development) loan.

Over the 4 years, many Torino City Lab initiatives will be conducted through CTE Next, which provides a series of calls for testing and calls for innovation, for which it will catalyze the potential experiments by start-ups and SMEs interested in carrying out activities in the territory of Turin. The project reference verticals are the classic sectors on which the city of Turin focuses: Smart Mobility, Urban Air Mobility (drones), Industry 4.0, Innovative Urban Services, and the gaze, as always, will be turned towards the social aspects and potential replication in other contexts of the solutions tested. In addition to the locations for experimentation already used in Torino

[6] Torino City Lab: project started in 2019 and born from the partnership between TIM and the Municipality of Turin. In this case, TIM is a TLC partner, for the establishment of simplified trial areas for digital services to allow for strategic collaboration to continue in the dissemination phase of the commercial 5G service.

[7] Casa delle Tecnologie: project inaugurated in July 2021 from which the House of Emerging Technologies was born, which aims to characterize the city as a large open innovation center to attract projects in the field of solutions for Smart Cities and Smart Mobility.

City Lab (Doralab and the urban circuit of Smart Roads), the CSI Next site, the CIM 4.0, the Clik laboratories of the Polytechnic and the laboratories of the Links Foundation (all places where TIM has set up the 5G reference infrastructure) will be added.

Thanks to CTE Next, the activities of Torino City Lab are significantly expanded, and made more structured and formalized, ensuring better effectiveness for the sustainable development of the territory. It should be pointed out that in CTE Next, TIM represents the 360-degree technological reference point for both the construction of the Casa delle Tecnologie and the innovation activities that will be carried out in it, assuming an even more central and decisive role for the success of the initiative.

A further collaboration with the Municipality of Turin concerns the automotive trial in the context of the 5GAA (5G Automotive Association), which also sees the participation of other mobile operators (British Telecom and Telefónica), Cisco, Intel, Capgemini and Harman as technology providers, and Stellantis as car maker. The goal is to ensure greater livability of city streets, increasing the safety of all road users (pedestrians, cyclists, motorists), with the testing of Vulnerable Road User (VRU) and Intersection Movement Assist (IMA) use cases, which are based on TIM's 5G network and Edge Computing solutions, the same technological assets that are characteristic of CTE Next. The activity was completed in December with a demo in which in a commercial 5G network context of private viability, the service scenarios were successfully demonstrated, applied in particular to foreign users of British Telecom and Telefónica roaming on the TIM network.

The involvement in the initiative of 5T, the in-house company of the council, which manages mobility systems and services in Turin and Piedmont, guarantees that the solutions designed and demonstrated in the trial are consistent and can be integrated with the development of the traffic management platforms used in Turin. From this standpoint, TIM and the other partners in the initiative are considering performing a second trial phase in 2022, during which to try out these application scenario types in real traffic conditions (or at least in controlled traffic conditions under the scope of real scenarios).

In the **automotive sector**, among the main applications, agreements and use scenarios of TIM's 5G implemented in 2021, we highlight:

- The C-ROADS Italy project, in which TIM participates as an enabler of the infrastructure dedicated to hybrid communication, i.e. based on the interaction between cellular and proximity communication. TIM has collaborated with project partners, in particular Autostrada del Brennero and Centro Ricerche Fiat (Stellantis) for the implementation of pilot projects in the field. To this end, TIM ensured mobile coverage on all stretches of the Brenner Highway and developed and made available for experimentation the Interchange Entity, i.e. the application component of the C-ROADS platform that enables the exchange of messages between all operators in the smart transport ecosystem world, such as highways and the connected car.
- The MASA - Modena Automotive Smart Area project, an 'open-air' laboratory for the testing and certification of new technologies in autonomous driving, assisted driving and mobility, born from the partnership between the Municipality of Modena and the University of Modena and Reggio Emilia. The collaboration will make it possible to test increasingly advanced autonomous and connected driving solutions and services, with the aim of developing the communication infrastructure that will be the basis of the new mobility services using the potential offered by the most modern network technologies. In particular, TIM will provide innovative solutions enabled by its 4G and 5G mobile radio networks, as well as by Edge Computing technologies, which ensure better performance in terms of high bandwidth and low latency, for automotive applications related to mobility and traffic management.
- The agreement with ALIS for smart and sustainable mobility through the digitization of over 1,500 transport, logistics and intermodal companies. The aim is to make the mobility of goods and people smarter and more efficient, as well as greener, thanks to digital technologies generating a positive impact in terms of economic, social and environmental sustainability in the transport, logistics and intermodal supply chain.
- "Arena del Futuro" – the world's first collaborative innovation project for zero-emission mobility of people and goods towards carbon neutrality together with the A35 BreBeMi-Aleatica highway, ABB, Electreon, FIAMM Energy Technology, IVECO, IVECO Bus, Mapei, Pizzarotti, Politecnico di Milano, Prysmian, Stellantis, Università Roma Tre and Università di Parma. The collaboration is aimed at creating the conditions for the development of an innovative zero-emission mobility system for people and goods along highway transport corridors by demonstrating the effectiveness and efficiency of technologies related to the powering of electric cars, buses and commercial vehicles through dynamic non-contact inductive charging.
- In December 2021, TIM presented the Autonom Shuttle by Navya, a 100% electric, self-driving shuttle that can interface with the 5G network and the Smart Mobility and Smart City platforms. This is the Autonom Shuttle developed by Navy, a French company that leads the industry of self-driving vehicles, dedicates to spaces of the first and last mile, tested at the TIM Innovation Lab in Rome. The 100% electric self-driving minibus can dialog via the 5G network using the applications of TIM's Smart Mobility and Smart City platforms to foster safety. The self-driving electric shuttle can carry up to 15 passengers - 11 seated and 4 standing. It reaches a maximum speed limited to 25 km/h with a nominal 22.6 kW (peak 34) electric motor. The possible evolutions of the technology deployed by the shuttle include surveillance services.

In the **Industry 4.0 sector**, collaborations can be pointed to with top-level Competence Centers such as CIM 4.0 and B-REX.

Within Competence Industry Manufacturing 4.0 (CIM 4.0), the MISE Competence Center, TIM Innovation Labs collaborate with the Polytechnic University and University of Turin, as well as with 23 other companies from Turin for the study, testing and dissemination in SMEs of Industry 4.0 solutions, including 5G. The collaboration that began in 2019 continued into 2021, not only on the higher education front with active participation in the CIM Academy, but also on the technology front: TIM has brought ultra-fast XGS-PON connections to CIM: FTTH fiber connections with XGS-PON technology, which make a bandwidth of 10 GB/second available symmetrically, and the use of new EDGE Cloud infrastructure, technological enablers designed ad hoc to foster the best digital performance and greatest flexibility of use.

At BI-REX, Bolognese center, the focus placed on the development areas of Big Data, Additive Manufacturing, Robotics, finishing and metrology, the alliance between the TIM network and the technologies present in BI-REX's pilot line, a reference point already active for companies, research centers and SMEs throughout Italy, engaged in the processes of technology transfer and digital transformation, demonstrates an example of how 5G can accelerate the digitization of companies.

On BI-REX's pilot line, TIM has made a professional push-to-talk communication platform available to ensure greater safety for working staff on the move. This platform allows you to geolocate and follow the worker, ensuring adequate protection even when isolated, thanks to the activation of the "man down" feature, which detects any irregularities in the worker's posture, enabling on-site supervision.

TIM's new fifth-generation network, integrated with the Augmented and Virtual Reality solutions already present on the pilot line, will enable timely future maintenance activities, with remote technical assistance, thanks to constant monitoring of the operation and the alarm indicators of the connected systems, minimizing any downtime and costs.

Collaboration between TIM and BI-REX is also concerned with the sphere of training, aimed at updating the skills of people and companies at the center of change: the online training activities on technologies for Industry 4.0 of the TIM Corporate Academy, will in fact complement the educational offer already provided by BI-REX, both on site with the pilot line itself, and remotely.

In May, under the scope of the agreement between TIM and Google Cloud, stipulated in 2020, for a technological collaboration for the creation of innovative public, private and hybrid cloud services to enrich the range of technological services offered by TIM, TIM and Noovle have launched the development of Italy's first "5G Cloud Network". The solution will allow for the faster development of new digital applications in 5G, thanks to the automation of industrial processes and the real time implementation of services thanks to EDGE Computing, on the basis of specific needs. The project, which will enable the automation of the functions of TIM's 5G core network and all Cloud applications, will use the TIM Telco Cloud infrastructure, Google Cloud solutions and Ericsson technologies.

Among the initiatives in the **entertainment** field, a sector over which TIM's innovation presides through all of its components, and in support of TIM's large commitment on the commercial front, the 5G-TOURS European project is of importance, whose various uses include use of the 5G network in remote and distributed TV production and where TIM participates as site manager in Turin. In this context, in November Palazzo Madama hosted the first trial of the "traveling orchestra": more than 100 spectators present in the Great Reception Hall were able to enjoy the musical work "The Garden of Forking Paths" by Andrea Molino in which a group of musicians and actors traveling through the streets of the city center played in harmony with an instrumental ensemble in the room, despite the physical distance separating them. All this has been made possible by TIM's 5G network, which constantly guaranteed high speed and low latency so as to ensure the simultaneous transmission of the various high-definition video flows from the video cameras to the central director.

Service Innovation initiatives

Operating activities to develop 5G technology, Open RAN and Edge Computing, as well as the enhancement of innovative solutions linked to Quantum Communication, Metamaterials, the Corporate Technology Plan and Digital Services carried out in partnership with companies, institutions, universities and start-ups, most of which are part of TIM's Open Innovation ecosystem, are accompanied by structured technical communication activities that range from the TIM Technical Bulletin editorial plan, to promotions with press releases and events to disseminate scientific information, also at the customer's premises.

Research with Universities

In 2021, participatory research and development activities have been strongly focused on a model that ensures an eco-system vision that pursues Open Innovation also through collaboration with some Universities of excellence. In fact, in 2021 TIM will focus on the creation of a real "Open Innovation Ecosystem" centered on the collaboration with some Italian universities in order to develop new Open Lab and Research Projects, as well as through PhD contribution to internalize specialized knowledge, but also for the sharing of technological trends, heralding new growth opportunities within an increasingly global market.

Open Innovation therefore grafts into an integrated ecosystem with the strategic European and Italian departments comprising orders, PhDs, PoCs, the development of demo prototypes, Community Open Source, financed projects and dissemination.

The research with the Universities for Innovation of 2021 identifies specific topics; real structured courses on some medium/long-term topics to complete and enrich the internal know-how and construct an all-round overview:

- setting medium-term paths and collaborations;
- continuity with the Framework Agreements of the previous year with 4 universities (Turin Polytechnic, University of Catania, Secondary School Sant'Anna of Pisa and the NRC);
- launch of an agreement with the University of Bologna on 5G for Industry with the corresponding framework agreement on possible architectures that allow the integration of the 5G network within an industrial plant. This will be based on the specific requirements determined by the different use cases of Industry 4.0 and communication protocols used for industrial automation based on the evolution of the features offered by the 5G network for Industrial IoT in the various releases of the standard. TIM, which employs approximately 60 TIM reference technicians, 65 university researchers involved in specific activities, envisages an economic commitment for 2021 of around 900,000 euros.

Another important step in the support for research and innovation is the path undertaken by TIM with the financing of 30 PhDs. In particular, the Innovation department has provided the Human Resources department with technical collaboration to propose research topics for establishing and tutoring 9-10 scholarships for the

36th cycle and 6 additional scholarships for the 37th cycle. The universities chosen are: The Polytechnic of Turin, the Polytechnic of Milan, the University of Milan, the University of Trento, the Scuola Superiore Sant'Anna of Pisa, the Federico II University of Naples, the University of Catania and the Alma Mater Studiorum of Bologna.

Collaboration has begun with the University of Modena and Reggio Emilia and the Council of Modena for the trying out and certification of new technologies in self-driving and assisted-driving, which is triggered in the MASA - Modena Automotive Smart Area project, where TIM joins in with its 4G/5G mobile radio and edge computing solutions.

Funded research activities

In 2021, TIM continued to be active in participating in innovation and research initiatives funded by the European Union and national public authorities, taking part, in particular, in international projects on issues that are key for TIM. In the four-year period between 2018 and 2021, in the European research and innovation programs (such as Connecting Europe Facility, Horizon 2020 and its recent evolution Horizon Europe) TIM participated in more than 50 project proposals of which more than a third were accepted and then funded for about 16 million euros. In this context, the activities carried out in the projects funded on the topics of 5G, virtualization and smart mobility services, and more recently "Beyond 5G", which will lead to the definition of the new generation of mobile systems of the near future, are those that have allowed, on the one hand, the enrichment of expertise and, on the other hand, the acquisition and consolidation of an internationally-recognized role.

Patents and Intellectual Property Rights[8]

In 2021, the Group's patent portfolio maintained a size comparable to that of previous years. The production of new patent applications remained in line with previous years (16 patent applications filed on new inventions) as did the new patents granted during the year. The rationalization of the patent portfolio has led to some patents being abandoned which, with technological evolution, are no longer of any value. The Group's patent areas relate to the entire ICT sector, with specific excellence in the mobile sector, in particular in radio access, where TIM is among the leading TLC operators in the world.

In detail, TIM's patent portfolio at end 2021, relating to 538 patented inventions, includes over three thousand patent applications and granted patents: the latter (granted after examination by more than 35 national patents offices) account for approximately 90% of the total.

A significant aspect of patent activity is represented by the high number of patents resulting from collaboration with universities and research institutes: 13% of patented inventions are the result of such collaborations.

Also noteworthy is the participation in several patent pools[9] managed by Via Licensing and Avanci on 3G, 4G and 5G, with three patented inventions that were found to be essential to the standards. The patent pools acquired new participants during the year (with a current total of 29 licensees for Via Licensing's LTE patent pool and 48 licensees for the Avanci 3G+4G automotive patent pool) and granted licenses to 56 companies (Via Licensing's LTE patent pool) and 19 car brands (Avanci's 3G+4G automotive patent pool), respectively.

TIM has equipped itself with a policy that envisages a recognition for patents when first granted and for those that have led to an economic return. The inventors are assigned a reward that takes into account the importance of the patents, assessed by an internal committee.

Research and Development in Brazil

The Architecture & Innovation Technology department[10] is responsible for Research and Development (R&D) activities; its main tasks are to define technological innovation for the network and information technology, to identify evolutionary needs for new technologies and devices, converging architectonic guidelines and strategic alliances in order to use the new business models and guarantee that the network infrastructure evolution is in line with the corporate strategy.

In 2021, the Architecture & Innovation Technology department was made up of 52 people, including telecommunications, electrical and electronic, IT and other specialists with professional skills and experience, which cover all areas of network knowledge, meeting the need to innovate and support research and development activities.

TIM Lab is the multifunction environment focused on innovation, which also plays a strategic role in supporting credibility tests and trials, as well as PoCs (proofs of concepts), collaborating with the main suppliers and technology partners through knowledge sharing, technological infrastructure for interoperability tests, staff assessment and the definition of technical requirements; in synergy with the R&D department, it facilitates innovation activities and promotes collaborations with universities and research institutes.

The TIM Lab Innovation Center in Barra da Tijuca, in the State of Rio de Janeiro, has a surface area of 650 m^2 and can also be used as an innovation space open to new opportunities, guiding innovation on the Brazilian telecommunications market and acting as national point of reference for R&D[11].

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[8] Intellectual Property Rights.
[9] It is a consortium of companies that agree to grant a single license for their patents, necessary for a given technology concerned by the standard.
[10] Architecture and Innovation Technology, within the Chief Technology and Information Office (CTIO).
[11] TIM Lab of TIM S.A. also collaborates with TIMLab Italy, which has more than 50 years of experience.

To strengthen the validation capacity regarding new software, features, solutions, technologies, services and devices, in 2020-2022, TIM S.A. has planned additional investments for over 10 million reais.

The Architecture & Innovation Technology Department has continued to work on projects and initiatives for the evolution of the business of TIM, which can be grouped into the macro groups:

- next generation network;
- with positive impact on the environment and society;
- future Internet applications;
- Open Lab Initiatives.

Next generation network projects

The reassignment of the 1,800 MHz, 850 MHz and 2,100 MHz bands from 2G/3G to 4G, with a multilayer distribution configuration gives TIM S.A. three important competitive advantages:

- a reduction in costs for the LTE implementation[12], the extension of the LTE coverage area and the activation of the carrier aggregation strategy, improving the customer experience through a higher throughput;
- the best indoor coverage. In addition to the expansion of coverage, use of the 850/1,800/2,100 MHz bandwidths could increase the capacity in cities already covered by the LTE bandwidth at 2.6 GHz, at limited additional cost.

In this scenario, over 99% of current LTE terminals are compatible with the 1,800 MHz, 2,600 MHz bands and other available bands. Therefore, the implementation of the multilayer LTE continues to be an excellent strategy that benefits from the spread of devices.

The implementation of the 700 MHz LTE layer has continued to significantly improve coverage expansion and indoor penetration, promoting the presence of LTE on a national level and consolidating TIM S.A.'s leadership in LTE. 89% of TIM S.A.'s current user base of LTE devices is 700 MHz enabled (December 2021).

At the end of December 2021, 3,900 cities had 700 MHz LTE coverage, namely over 93% of the urban population; spectrum cleaning was completed in June 2019 in all cities of Brazil, enabling a bandwidth of 700 MHz. At end 2022, the total number of cities covered by TIM S.A. with a 700 MHz bandwidth should be 4,100, as envisaged by the Industrial Plan.

Projects entailing a reduction of energy consumption

The expansion of "RAN Sharing 4G", in partnership with other mobile operators in Brazil, aims to define the architectural requirements, technical assumptions and specifications for the "LTE RAN sharing[13]" solution, optimizing network resources and costs[14]At present, this is the largest agreement for RAN sharing worldwide and it supplies 5G services to the main cities of Brazil.

The RAN sharing agreement allows TIM S.A. to promote the spread of LTE in the Brazilian campaign, effectively sharing access and backhaul.[15] At present, 4G RAN Sharing is based on three national partners, expanding the benefits and efficiency of this technical model. The energy consumption recorded for the site, dependent on the access technology and coverage conditions, showed a reduction of up to 10%.

In December 2019, TIM S.A. and Telefónica stipulated new sharing contracts aimed at increasing the network cost efficiency through the following initiatives:

- Single network: sharing of the 3G and 4G networks in cities with fewer than 30 thousand inhabitants in which both operators provide their services. The underlying idea is to have, in the cities included in the agreement, a single telecommunications infrastructure that is entirely shared by the operators, thereby allowing them to switch off redundant sites and save on energy, rent and maintenance costs. This also allows for greater efficiency in future investments thanks to the sharing of the spectrum in MOCN mode.
- Switching off of the 2G: nationwide sharing of the 2G network using GWCN technology, enabling both operators to switch off part (approximately 50%) of its network with the same technology, consequently saving on energy and maintenance costs.

Next generation network projects, future Internet applications, positive impact on the environment and society

Internet of Things - It was back in 2018 that TIM S.A. launched the very first commercial NB-IoT[16] network in South America, to develop innovative services, aware that the mass introduction of the IoT can change the mobile telephony market considerably, because it leverages the creation of services and - amongst others - is

[12] Long Term Evolution.
[13] Sharing the Radio Access Network.
[14] Infrastructure costs are mainly associated with the introduction of new radiating systems and other electronic components, passive site infrastructure and transport networks; therefore, the sharing of the resources supplied by LTE RAN makes for a significant optimization of costs for telecommunications operators.
[15] In the telecommunications sector, a backhaul network or return network is the portion of a hierarchical network that includes intermediate connections between the core network (or backbone network) and the small sub-networks at the "margins" of the same hierarchical network.
[16] Narrowband Internet of Things (NB-IoT) is an LPWAN (Low Power Wide Area Network) radio technology standard developed by 3GPP to enable communication with a wide range of cellular devices and services.

a potential tool for agricultural uses, the connection of cars, traceability solutions and social-health care. In 2020, access to the NB-IoT network was extended.

Agrobusiness - Since 2018, together with Nokia and BR Digital, TIM S.A. has been focusing on agro-food potential in Brazil, offering connections in rural areas (not only for business applications but also for the digital inclusion of agrobusiness employees and residents of small towns). Since 2020, TIM has strengthened its position in relation to vertical agriculture[17], with the creation of the ConnectarAgro ecosystem (https://conectaragro.com.br/) which brings together TIM S.A., solution providers for the agro segment and telecommunication solution providers.

5G -The 2020 commercial launch that involved the cities of: Bento Gonçalves (RS), Itajubá (MG) and Três Lagoas (MS). The technology will be used to supply wireless residential broadband with FWA (Fixed Wireless Access) technology, exploiting the old frequencies of the 2G, 3G and 4G networks through dynamic spectrum sharing (DSS).

Connected Car - In 2021, the telemetry and connectivity solutions for Connected Car user services were developed for Stellantis, designed to support the advanced telemetry and Stellantis assistance services for its vehicles, as well as Wi-Fi connectivity and other added value services for car owners. These are the first full digital services for connected cars available in Brazil.

Open Lab initiatives

TIM S.A. joined the Telecom Infra Project (TIP) in 2017, an initiative founded by Facebook, SK Telecom, Deutsche Telekom, Nokia, Intel and other companies, which aims to create a new approach to building and implementing the telecommunications network infrastructure. TIM S.A. transformed TIM Lab into the first TIP Community Lab in Latin America, available to TIP members to create universal standards for solutions (initially transport networks, Open Optical Packet Transport working group), to overcome the challenges related to interoperability of different supplier products.

In 2018, TIM S.A. also joined a new working group within the TIP, together with Vodafone and Telefonica, called DCSG (Disaggregated Cell Site Gateway[18]). This project is an opportunity to define a common set of operator requirements and coordinate with companies that manufacture devices, which have wider and more flexible capacities and are cheaper; in June this year, the main functions of the solution were demonstrated with the help of Facebook, core EDGE suppliers and TIP members.

Finally, in 2020, TIM S.A. and the TIP partners completed their validation of the TSS (Total Site Solution), an inexpensive, unrestricted 4G NodeB solution, powered by solar energy and connected by satellite to the core TIM S.A. network, to be used in remote zones with low population density. During the year, TIM also adhered to the OpenRAN initiative with the OpenField project, to validate OpenRAN 4G and 5G solutions focused on the separation of hardware and software at a RAN level.

[17] Above ground crops in closed large system greenhouses, which are on several height levels, air-conditioned and automated. These systems are 75% more productive than traditional field agriculture and consume about 95% less water.
[18] Based on an open and unbundled architecture, the new DCSG is designed for the economic backhaul of cellular site traffic on existing mobile networks and emerging 5G infrastructures.

CONSOLIDATED NON-FINANCIAL STATEMENT

TIM, as a Relevant Public Interest Entity (PIE), has prepared and presented a “Consolidated non-financial statement” as a “separate report”, as provided for by article 5 *Statement positioning and disclosure regime* of Legislative Decree 254/2016, on the disclosure of non-financial information and diversity information by some companies and some large groups. Moreover, a report (statement) issued by the appointed external auditor pursuant to article 3, subsection 10 of Legislative Decree 254/2016 is annexed to the “Consolidated non-financial statement”; the assignment was given to EY S.p.A..

The Consolidated Non-Financial Statement is available in the sustainability section of the website gruppotim.it.

EVENTS SUBSEQUENT TO DECEMBER 31, 2021

See the Note "Events Subsequent to December 31, 2021" in the Consolidated and Separate Financial Statements at December 31, 2021 of the TIM Group and TIM S.p.A., respectively.

BUSINESS OUTLOOK FOR THE YEAR 2022

The financial targets of the 2022-2024 Industrial Plan defined on the basis of the current organizational and business model, are as follows:

- Group revenues from services expected to rise slightly during the plan period (low single digit CAGR '21-'24 growth, with 2022 low single digit decrease);
- Group organic EBITDA expected to be stable over the plan period (CAGR '21-'24 flat, with 2022 low teen decrease);
- Group after-lease organic EBITDA expected to decline slightly (low single digit CAGR '21-'24 decrease with 2022 mid to high teens decrease: acquisition of the Oi assets impacts lease charges during the plan period and this impact will only be absorbed after the plan time frame);
- Group capex expected for approximately 4.0 billion euros in 2022 and approximately 3.9 billion euros in 2023 and around 3.8 billion euros in 2024;
- Domestic capex less than 15% of revenues in the medium/long-term;
- The Group's net debt for 2022 will be impacted by unrepeatable payments for a total of 3.7 billion euros, in particular for the acquisition of the spectrum in Italy and Brazil and the acquisition of Oi assets, the impact of which on leverage will be completely absorbed by 2025.

The 2022-2024 Industrial Plan strategy outlined is hinged on the awareness that the Group is made up of a set of assets of great value operating in an economic context that is improving but on a highly competitive market with some of Europe's strictest regulations.

In this scenario, TIM wishes to speed up development of the infrastructural assets (fiber in fixed and 5G in mobile) and the growth of new business, making the most of the advantages linked to the funds made available by the PNRR and other sources.

The new plan aims to create a new TIM with solid industrial and technological bases, which can speed up the route towards sustainable generation of cash flow, also thanks to the overcoming of the current vertical integration model.

In addition to the Plan targets, based on the current organizational and business model, as recalled above, a new, optimized corporate configuration has been defined, comprising specific legal entities.

The new structure will improve visibility of the operating and financial performance of each member and will expand the range of strategic options that TIM can exploit in the interests of all stakeholders, with the possibility of attracting new partners and new financial investors. A very limited impact on costs necessary to ensure the complete separation is estimated, insofar as most of the investments have already been made, thanks to the implementation of the equivalence of input, the equivalence of output and the separation of FiberCop.

- **ServCo**: Mobile network assets, service platforms and data centers and structured into:
  - **Enterprise** - Commercial activities in the Enterprise market integrated by the digital companies Noovle, Olivetti and Telsy;

    In leveraging its leadership position with the Public Administration and key accounts and on a unique, distinctive end-to-end selling proposition, TIM aims to gain share on a growing market thanks to the drive on digital services: Cloud (at a rate of 15% per year), IoT (+10%) and Cybersecurity (+10%). An ever more integrated "tech-company" approach, also organizationally, as a "one-stop-shop", will fully optimize the uniqueness of the Group's assets and competences, also making the most of the opportunities of the PNRR, including development of the National Strategic Hub in the Cloud;
  - **Consumer** - Commercial activities on the retail Consumer and SME (Small and Medium Enterprise) market

    Amidst a context of growth of ultrabroadband, the plan envisages strengthening TIM's premium positioning and a refocus of the commercial channels on the core business and protection of the existing customer base. It will continue to strive towards convergence, working on the improvement of margins and the opportunities offered up by the voucher program, also in terms of technological upgrade;
  - **TIM Brasil**

    The company maintains its focus on a value strategy and will achieve further drive on growth from the integration of Oi assets, continuing along its route to becoming a "Next Gen Telco".
- **NetCo**: Fixed network assets, the international and domestic wholesale assets of Sparkle.

  TIM's strategic priorities on the **wholesale domestic** market, expected to grow slightly in terms of access lines over the plan horizon, are a major boost towards the migration of lines to FTTH technology, hinged on co-investment associated with an ambitious coverage plan based on the co-investment model and an extension of the portfolio of services offered.

Starting out from 94% coverage in FTTC, the TIM Group expects to speed up the FTTH roll-out developed by FiberCop, reaching 60% of technical property units nationwide by 2026 with an increase of around 3 percentage points compared to the previous target (without taking into account the expected effects of taking part in the "Italia 1 Giga" tender for the public financing of new 1Gbit/s infrastructures).

In light of this acceleration in fiber coverage on the domestic market, 2022 will record a peak in investments, followed by a progressive reduction to a level below 15% of revenues in the medium-term.

NetCo will be able to compete more effectively on the wholesale market and make the most of new opportunities, including the greater regulatory flexibility envisaged by the Electronic Communication Code to the benefit of wholesale "pure-players". It is reasonable to expect that this scenario will also benefit the retail activities of ServCo.

On the organizational front, the new model based on smart working will go hand-in-hand with a three-year plan to manage staff that, continuing on from previous years, will apply tools that can guarantee employment and encourage voluntary redundancies and early retirements.

The plan further strengthens TIM's commitment to sustainability. New, more ambitious Group objectives have been introduced on circular economy, digital growth, gender equality and ESG governance. The Company has set itself the aim of achieving zero net emissions by 2040 and confirmed the target of carbon neutrality by 2030.

MAIN RISKS AND UNCERTAINTIES

Risk governance is a strategic tool for value creation.

The TIM Group has adopted a Risk Management model that is constantly evolving, aligned with international regulations and standards, to allow the identification, assessment and management of risks in a uniform way within Group companies, highlighting potential synergies between the actors involved in the assessment of the internal control and risk management system.

The Risk Management process is designed to identify potential events that may affect the business, to manage risk within acceptable limits and to provide reasonable assurance regarding the achievement of corporate objectives.

The Risk Management Model adopted by the TIM Group

- classifies risks based on their impact into Strategic (resulting from the evolution of factors underpinning the main assumptions used for the development of the Strategic Plan) and Operational (resulting from the evolution of risk factors, both endogenous and exogenous, which can compromise the achievement of business objectives);
- assesses the risks not just individually but also in terms of the risk portfolio (correlation analyses);
- identifies and updates the overall set of risks to which the Group is exposed through the analysis of the Industrial Plan, the monitoring of the reference context (macroeconomic, regulatory, etc.), cyclical monitoring with the Risk Owners, in order to intercept any changes and/or new risk scenarios, specific analyses on the risks to which the corporate assets may be exposed.

The business outlook for 2022 could be affected by risks and uncertainties caused by a multitude of factors, the majority of which are beyond the Group's control.

In this context, we highlight the health emergency due to the spread of COVID-19 and the recent conflict between Russia and Ukraine. In addition, non-exhaustively, the following additional factors are mentioned: a change in market context, entry of new potential competitors in the fixed-line and mobile sphere, the initiation of procedures by Authorities and consequent delays in the implementation of new strategies, requirements connected to the exercise of the Golden Power by the Government with effects to be assessed in terms of strategic choices and timing of the Plan objectives.

Risks related to the business and industry

Risks related to competition

The telecommunications market is characterized by strong competition that may reduce market share in the geographical areas where the TIM Group is engaged as well as erode prices and margins. Competition is focused on innovative products and services and on the capacity to move towards higher levels of convergence in service and expand it to the content offering, but also on the price competition in both traditional and other services. The use of new technologies (IoT) and new knowledge and customer management tools (Big Data) represent enabling factors in the mitigation of competition risks, however failure to exploit these opportunities could become an additional element of risk.

In terms of infrastructural competition, also considering the establishment of the company FiberCop, which aims to speed up the country's fiber coverage, the development of alternative operators could represent a threat for TIM, also beyond the Plan period.

Competitive risks in the Brazilian market lie in the rapid transition of the business model tied to traditional services and the potential consolidation of the sector. As the consumption patterns of consumers change (migration from voice to data services), service providers need to act swiftly in upgrading their infrastructure and modernizing their portfolios of products and services. In this context, the TIM Brasil group could be impacted by the need to upgrade its technologies and infrastructure rapidly and by greater competition, in the form of aggressive sales strategies and potential business combinations in the sector. In addition, the slow recovery from the country's major economic crisis, the delay in the necessary structural reforms, the COVID-19 pandemic and all the restrictions imposed to fight its spread, directly affected consumption, in particular in the prepaid segment.

Risks related to the development of fixed and mobile networks

To maintain and expand our customer portfolio in each of the markets in which the TIM Group operates, it is necessary to maintain, update and improve existing networks in a timely manner. A reliable and high-quality network is necessary to maintain the customer base and minimize terminations to protect the Company's revenues from erosion.

The maintenance and improvement of existing installations depend on the Group's ability to:

- deliver network development plans within the time-frames contemplated by business development plans and with the necessary level of effectiveness/efficiency;
- upgrade the capabilities of the networks to provide customers with services that are closer to their needs;
- increase the geographical coverage of innovative services;
- upgrade the structure of the systems and the networks to adapt it to new technologies;
- sustaining the necessary level of capital expenditure in the long term.

Cyber security risks

Cyber risk is on the increase worldwide and as such requires continual monitoring by TIM, given the sheer amount of IT assets the company manages in terms of own TLC infrastructure and assets necessary to deliver services to customers, some of which, considered essential, come under the scope of recent legislation governing the National Cyber Security Perimeter.

In view of these considerations, considerable attention was paid to protecting networks from main threats (e.g. viruses, malware, hackers, data theft). With a wide range of attackers (Cyber-Criminals, Cyber-Terrorists, Insiders, etc.), TIM carries out activities not only to safeguard its infrastructure but also – with a strong sense of responsibility – to protect customers' information assets and essential services, which are a priority target for the company.

As regards prevention, TIM monitors cyber risk analyses, defining security plans for the company's IT assets, to identify the actions necessary to mitigate cyber risk in advance and guarantee a security by design approach, also monitoring the plans of these actions and controls on actual adoption in the field. The company has also prepared advanced test laboratories to identify possible vulnerabilities in the hardware and software products used in its network.

As for its response to cyber attacks, the Security Operation Center (SOC), operates 24/7, 365 days a year, in order to manage IT security incidents and help limit their impacts. TIM has also implemented an insurance program to cover cyber risks.

In connection with the Russia-Ukraine conflict, TIM is liaising with the National Cybersecurity Agency (ACN), which has sent to TIM a communication relating to the "Possible impacts on national ICT infrastructures in connection with the Ukraine situation".

More specifically, following the evolution of the crisis and the information exchanged on a European level and with NATO, TIM has been invited to raise the level of alert in connection with the cyber risk.

In order to prevent any impacts where similar conditions should occur to those seen in previous cases (NotPetya, Wannacry), in addition to adopting best practices on the matter, CSIRT (the structure established at ACN that, amongst others, issues pre-alarms and provides information to the parties concerned in respect of cyber risks) has asked that the level of attention be raised, by way of a priority adopting certain mitigating actions, including:

- verification of the consistency and off-line availability of back-ups necessary to restore in particular core business services;
- increased monitoring and logging;
- creation, update, maintenance and periodic operation of incident response capacity, business continuity and resilience plans;
- availability of key personnel;
- particularly close attention to the cloud environments;
- prioritizing patching;
- monitoring service and administration accounts to detect any abnormal activities;
- monitoring network traffic to analyze abnormal peaks;
- increase of the capacity to protect e-mail infrastructures from spear-phishing activities.

TIM is making every effort to raise the monitoring measures and fight the cyber threat, also and simultaneously increasing physical security measures at the most critical sites.

Business Continuity Risks

The TIM Group's success depends heavily on the ability to ensure the continuous and uninterrupted delivery of the products and services we provide through the availability of processes and the relating supporting assets, which are sensitive to various internal and external threats. TIM has adopted a "Business Continuity Model System" framework in line with international standards, to analyze and prevent these risks.

TIM considers Business Continuity a fundamental factor for the protection of the Group's Value and Reputation, in the provision of its services and in full compliance with what is defined in customer contracts, in sector regulations and, more generally, in consistency with reference methodologies and best practice.

TIM implements an ongoing management and governance process which, supported by the Company Management, ensures that the necessary steps are taken to identify the impact of potential losses, that recovery plans and strategies are practical and that continuity of services is guaranteed through training programs, tests, exercises and periodic updating and revision activities.

TIM also carries out period risk assessments of the corporate assets with a view to assessing and mitigating the risks of possible direct damages and/or interruptions of business, equally implementing specific insurance programs to cover these risks.

In 2021, TIM launched the ISO 22301 certification process (Security and resilience - Business continuity management systems) relative to the governance of its BCMS and the most important processes. This will make it possible to both improve the continuity of services offered and provide greater guarantees in this respect to its stakeholders.

Fraud risks

Technological progress means that increasingly sophisticated tools and techniques, which are quick acting and have a considerable economic impact are available for fraudulent activity.

“Conventional” phenomena such as subscription, interconnection, and commercial fraud currently generate the highest part of revenue loss and will continue to be significant in the near future, however new types of Internet-style fraud will gradually gain more ground (Internet spamming/phishing, service reselling, VoIP bypass, etc.). Furthermore, some specific types of provided services (e.g. wholesale interconnection, voice or data services) are potentially at risk of third party use for the construction of fictitious transaction schemes, tax avoidance offenses and/or international money laundering.

The TIM Group has an established organizational model based on the governance of fraud and a separate operational governance system for managing and combating fraud.

The procedure to combat external fraud, drawing on company processes at risk of the offenses contemplated in Italian Legislative Decree no. 231/2001 being committed, sets out internal control mechanisms, including instructions on how employees and Company staff/partners (including suppliers) must behave (Prevention). In the Detection stage, potential cases of fraud are identified and after a preliminary check of the possible grounds the cases may be subject to Investigation and Tackling. To complete the fraud management end-to-end cycle, the results of actions taken are assessed with monitoring and any actions to improve the fraud management process are identified.

The fight against internal fraud, implemented in compliance with the limits imposed by the recently updated trade union agreements prohibiting distance monitoring of staff at work, is carried out through the detection of information relating to the concentration of anomalous operations that flag-up possible cases of serious wrongdoing.

Risks linked to the main sustainability topics

For many years now, the Group has been actively involving and systematically consulting with its stakeholders with a view to improving the company’s environmental, social and governance (ESG) performances. The results of engagement activities, as seen from the materiality matrix, are reflected in the Sustainability Plan, the heart of the Group’s three-year Strategic Plan.

The plan of action in support of the ESG strategy aims to assure a concrete, significant impact on business development, which has upheld goals of environmental protection and social inclusion.

Reducing energy consumption and combating climate change

The Group has set itself the goal of becoming carbon neutral by 2030, with an increasing focus on energy consumption, failure to limit such will not only have a negative impact on the climate, but may result in failure to make savings on costs. In these terms, it has been decided to bring forward the achievement of the target on the use of renewables in electricity purchased (Scope 2) to 2025: for this year, it will be 100% use of renewable energy for the domestic business and 90% for the Brazil business.

In 2022, the agreement signed in Italy by TIM and ERG for the supply of electricity produced from renewable sources already covers approximately 20% of its corporate energy consumption through renewable sources, strengthening the commitment to the pursuit of objectives and the use of renewable sources on which the Group's strategy is hinged. The operation is also an important contribution towards the development of the clean energy sector, in line with the CO2 emissions reduction and decarbonization objectives established by the European Union. In addition to increasing use of renewable sources, the measures adopted by TIM to increase the efficiency of energy consumption and the circular economy include:

- initiatives and projects aimed at minimizing the environmental impact of the corporate business, of customers using ICT products and the supply chain;
- energy efficiency improvements under the scope of the plants and CED.

The continuous increase in global average temperatures is having a significant impact on natural events/disasters.

The negative consequences linked to climate change (e.g. floods, wind storms, etc.) can also impact the corporate assets (tangible damages) and Business Continuity (Business Interruption). To this end, TIM has specifically assessed, mitigated and monitored risks deriving from such events, as well as taken out suitable insurance cover.

The invasion of the Ukraine by Russia opens up even extreme economic impacts relative to energy procurement. The Eurozone companies, which starting 2021, have addressed the sharp rise in energy bills as compared with 2020, may be further impacted by the increased cost of energy. Before the start of the conflict, more than 40% of natural gas imported by our country (source: Ministry of the Ecological Transition) and also necessary for the production of electricity (thermoelectric plants) came from Russia. The electricity consumed by TIM depends almost entirely on suppliers and with only a tiny part being self-produced, hence the TIM Group is naturally exposed to the fluctuations of energy costs that could hinder the achievement of business objectives in terms of reduced margins and cash flow. To mitigate these exposures, the action in progress for 2022 include TIM covering much of the need at fixed price.

Social inclusion

The digital divide is a huge obstacle to the dissemination of digitization, the growth of the country and the correlated connectivity services, with the risk of commercial repercussions. The “Operazione Risorgimento Digitale” initiative, which began in 2019, is the first major free school for the spread of digital skills in Italy and the main project for inclusion that seeks to bridge the digital divide involving the country’s less urbanized areas.

Personnel competences and engagement

The capacity to attract and retain qualified, specialized, motivated personnel is key to the success in pursuing the strategic goals and achieving a high level of customer experience.

TIM has launched a hiring program, searching out professional profiles that are compatible with the company reindustrialization/reorganization plan and a program for all personnel for the adjustment of competences in support of requalification, reskilling and upskilling processes, also regarding important insourcing of evolved and traditional, technical-specialized core activities.

The internal climate survey carried out amongst employees in 2021 reported the important result on satisfaction with work, which has increased by 20 percentage points in the last 3 years.

The staff engagement plan, which includes a series of actions, remains in place, including, of those already in progress, those concerned by revision and those introduced ex-novo, which look to personal well-being, organization and personal support, to ensure a better time working in the company and, in turn, comes under the scope of the broader TIM Sustainability Plan.

Financial risks

The TIM Group may be exposed to financial risks, such as risks arising from fluctuations in interest rates and exchange rates, credit risk, liquidity risk and risks related to the performance of the equity markets in general, and – more specifically – risks related to the performance of the share price of the TIM Group companies. These risks may adversely impact the earnings and the financial structure of the Group. Accordingly, to manage those risks, the TIM Group has established guidelines, at central level, which must be followed for operational management, identification of the most suitable financial instruments to meet set goals, and monitoring the results achieved. In particular, in order to mitigate the liquidity risk, the TIM Group aims to maintain an "adequate level of financial flexibility", in terms of cash and syndicated committed credit lines, enabling it to cover refinancing requirements at least for the next 12-18 months.

Risks related to macro-economic factors

The TIM Group's economic and financial situation depends on the influence of numerous macroeconomic factors such as economic growth, consumer confidence, interest rates and exchange rates in the markets where it operates.

The global context is characterized by a post-pandemic economic recovery that is not exempt from the main macroeconomic risks. Of these, the most important and which are already visible, are the increase in prices of commodities, the increase in the spread, the economic sustainability of the recovery strategies to be adopted and the slowing of production in certain strategic segments. The lack of semiconductors and the consequent repercussions in extensive sectors such as consumer electronics and automotive may determine a direct and indirect negative impact on our industry. Europe has recently made important decisions to reduce dependency on Asian markets but the first results will not be seen for ten years or so.

The increase in the price of raw materials is also being reflected in other sectors. For the Eurozone, the European Central Bank has recorded inflation of 5% at December 2021 which should reduce, in the most positive forecasts, no earlier than late 2022 following the moderation of energy prices and the alignment of supply/demand on national and international markets.

In **Italy**, the fourth quarter 2021 also expects to see economic growth, albeit at a more moderate level than in previous quarters. Preliminary forecasts suggest growth of 0.6% on the third quarter and 6.4% on the fourth quarter of 2020. For Italy the sustained growth in the GDP for the year just ended (+6.5%) should also be confirmed for 2022 (+4 %). These scenarios incorporate the effects of the progressive introduction of the interventions envisaged by the National Recovery and Resilience Plan (PNRR). The stability and effective capacity to implement the measures planned, and the completion of the vaccine campaign are the main elements for the social and economic recovery.

The recovery of consumption by families may be hindered by continued inflationist pressure.

The Italian government’s measures to limit the contagion and support household incomes have led to a severe increase in public debt, which came to 155.6% of the GDP in 2020, up 21 percentage points on 2019. The latest forecasts for 2021 show an improvement in the debt/GDP ratio by 3 percentage points at year end (152.6%).

The employment offer is still below pre-crisis levels for approximately 500 thousand people. The Italian employment market in any case records a recovery that should result in pre-crisis levels being reached in 2023.

In February 2022, Russia launched a military operation invading the Ukrainian territory, the consequences on the world political-economic balance are incalculable.

The European Union, together with a great many other countries, have implemented particularly harsh financial sanctions against Russia and Belarus, and others may follow suit gradually.

For the TIM Group, in particular for Telecom Italia Sparkle, there may be fallout in terms of commercial relations, in the collection of trade receivables and in the assets present in the country, which, however, despite the fact that they do depend on how the conflict evolves, is not currently considered to be significant.

More generally, there may be effects also due to the increase in the prices of commodities, energy costs, the cost of money, the reduction in the demand for international telecommunications services in the countries at conflict, delays in the delivery of goods and increased transport costs, which may further strike the procurement chain with impacts that are today difficult to assess.

In Brazil, in 2021, with the progress made on the vaccination plan and the gradual reopening of economic activities, GDP growth was 4.7% (IMF).

At the start of the second half of 2021, the threat of a severe energy crisis began entering the Brazilian agenda. The year in any case closes positively thanks to the recovery of the reserve levels in the country’s main hydroelectric plants.

For TIM Brasil the risk is under control, considering that most of the energy contracts are long-term and will not be impacted by any tariff changes. In addition, TIM Brasil is taking preventive measures to reduce structural consumption.

Risks relating to the legislative and regulatory context

Regulatory risks

The electronic communications industry is highly regulated. As such, new decisions by the Italian Communications Authority (AGCom) may lead to changes in the regulatory framework that may affect the expected results of the Group and the guidance announced to the market. In addition, the position of significant market power held by TIM In the fixed-line access markets and the structure of the mobile markets results in high levels of scrutiny from the Italian Competition Authority (AGCM) over competition in the sector.

The main elements that introduce uncertainty are:

- lack of predictability in start-up timing and consequent final decisions in new proceedings by AGCom and AGCM (the Italian Competition Authority);
- AGCom decisions with retroactive effect (for example, the revision of prices applicable to past years and the effectiveness and actual implementation of repricing policies, also following administrative rulings);
- AGCom decisions that can influence the technological choices, with potential impact on the timing of return on infrastructure investment;
- any AGCM (the Italian Competition Authority) decisions that can limit TIM's competitive capacity (for example, in terms of minimum retail prices to guarantee replicability);
- any inadequacy in the implementation of processes and systems for the management of regulated services, identified by AGCom or AGCM (the Italian Competition Authority);
- any AGCom or AGCM (the Italian Competition Authority) decisions that impose constraints on the pricing of fixed-line and mobile offers on the basis of consumer protection legislation.

Compliance risks

The TIM Group may be exposed to risks of non-compliance due to non-observance/breach of internal (self-regulation, such as, for example, bylaws, code of ethics) and external rules (laws, regulations, new accounting standards and Authority orders), with consequent judicial or administrative penalties, financial losses or reputational damage.

The TIM Group aims to ensure that processes, and, therefore, the procedures and systems governing them, and corporate conduct comply with legal requirements. The risk is associated with potential time lags in making the processes compliant with regulatory changes or whenever non-conformances are identified and is monitored by the dedicated internal control system.

General Data Protection Regulation (GDPR)

Compliance with Commission Regulation (EU) 2016/679 (General Data Protection Regulation, GDPR), directly applicable as from May 25, 2018 and enacted in Italy by Legislative Decree no. 101/2018 is particularly important. This Regulation has increased administrative fines considerably compared to the Data Protection Act previously in effect, and in some cases fines of up to 20 million euros may be administered, or in the case of companies, of up to 4% of their global annual turnover of the previous year, if this amount is higher than 20 million euros. Starting from the operating model already in use with pre-existing Privacy regulations, the TIM Group extended the tools necessary to ensure compliance with the GDPR, also activating specific organizational oversights. In particular, a steering committee was established on compliance with the GDPR, overseen by the company's senior management and that provides guidance in pursuing the conformity objectives. The conformity assessments have been submitted to the committee, along with the results of the *ex-ante* and *ex-post* controls carried out by the Compliance Department in accordance with the Group Data Protection Officer, who operate autonomously, in accordance with segregation of duties and who take part in the Company's Internal Control System. The Company's operative processes have been adapted according to the principle of privacy-by-design, with special attention paid to the commercial, relations with customers and technological processes, adopting the methods defined by corporate regulations dedicated to the application of the GDPR and the provisions of the Data Protection Authority. Personal data processing is subject to preventive Privacy Impact Assessment (PIA) according to the indications of the European Data Protection Board (EDPB), it is censused and the related responsibilities are attributed to the suitable managerial level of the Company's organization, as envisaged by the Privacy Code in application of the accountability principle laid down by the GDPR.

Health and Safety at Work

Compliance with safety at work requirements is assured in TIM through the application of current applicable legislation starting from when the risk assessment is performed and updated from time to time, along with the relevant document. In 2021, ISO 45001:2018 certification has also been achieved in relation to the design, development, maintenance and management of the properties coming under the purview of the Real Estate department.

As regards the management of the impacts of the COVID-19 pandemic, TIM immediately took all steps necessary to fully implement the emergency provisions issued by the government and regional authorities, in multiple tranches, to limit the virus contagion.

Weekly smart working has been extended to all professional figures able to do so, including call center operators, and specific prevention and protection protocols defined, modulated taking into account the specific nature of the work at hand, for all those needing to continue to work on-field (technicians, store operators and data center operators), equipping them with suitable Personal Protection Equipment and, in line with the legal guidance and taking into account government and health authority guidelines, in accordance with Italian Legislative Decree no. 81/2008, a specific document has been formalized dedicated to COVID-19 and setting out all personnel protection measures aimed at preventing contagion.

In addition, TIM has supported employees with dedicated initiatives, such as:

- a continuous information and awareness-raising campaign intended for all personnel;
- a health welfare campaign, of voluntary adhesion, based on serological and rapid antigen tests (from June 2020 to March 2021) aiming to verify the degree of immunity to COVID-19 by means of antibody response, intended mainly for personnel who have continued to work in the field during the emergency and that involved approximately 12,000 employees. In 2021, the campaign was extended to include all TIM employees, with the collaboration of ASSILT;
- a flu vaccine campaign, again voluntary, between end 2020 and early 2021, directed towards all TIM Group people, which was taken up by approximately 5,000 employees; the vaccination campaign was reproposed in November 2021, again on a voluntary basis, and this time taken up by approximately 3,800 employees;
- psychological support from external professionals;
- specific procedures for handling any cases of ascertained or suspected positivity to COVID-19, as well as specific insurance cover for employees in the event of hospitalization following contagion with COVID-19;
- criteria for interregional and international mobility for proven working needs, always within the limits set by the schemes defined by the competent health authorities;
- the signing of specific agreements with the Trade Unions for the safe management of a return to work, which took place on a voluntary basis starting October 04, 2021 for approximately 3,000 employees who chose to cease smart working 5 days a week. The partial return took place according to the criteria shared with the trade unions in this respect:
    - 1 day a week for the daily model and 1 week a month for the weekly model for those who agreed to temporary smart working;
    - 5 days a week for those who did not agree to temporary smart working.

This return has entailed the reopening of 48 properties in complete compliance with the rules designed to prevent COVID-19 infection, specifically set out in the Site Regulations prepared for each property.

Golden Power

The "Golden Power" Decrees that give the government special powers over corporate structures in the defense and national security sectors, as well as for activities of strategic importance in the telecommunications sector, affect the public-private relationship, also adding value to the technological assets and services included in the Golden Power perimeter, with content derived from the pursued institutional purpose.

In summary, the Prime Minister established that the Company is subject to the obligations pursuant to Legislative Decree no. 21/2012 (special powers rules) on September 28, 2017, as a business that:

- carries out "activities of strategic importance for the defense and national security system" (as per article 1 of the Decree Law) and
- possesses networks and systems "necessary to ensure the minimum supply and operation of essential public services" and goods and relationships "of strategic importance for the national interest" in the communications sector (as per article 2 of the same Decree Law).

The regulatory architecture relating to TIM, consequently, involved a first phase in 2017 on the issue of the Prime Ministerial Decrees of October 16 and November 2.

The government's ruling was subsequently integrated with the Law of May 20, 2019, no. 41 which included measures relating to electronic broadband communication services based on 5G technology within a wider framework of urgent measures".

With the aforementioned ruling of October 16, 2017, the Prime Minister exercised the special powers provided for in article 1 of the Golden Power Decree by imposing specific provisions and conditions on TIM and the Sparkle and Telsy subsidiaries. The measures concern corporate and organizational governance; in particular, the Prime Minister requires the presence on the respective Boards of Directors of a Security Chief Executive Officer - currently coinciding with the Chief Executive Officer - (who has Italian citizenship and security authorization) and the establishment of a Security Organization unit.

With a ruling on November 2, 2017, the Prime Minister's Office also exercised the special powers provided for in article 2 of the Golden Power Decree, through the imposition of further requirements and conditions.

With the subsequent implementing decrees of September 5, 2019 and July 6 and August 7, 2020, the Legislator imposed the exercise of special powers in relation to the supply of 5G technology produced outside the EU, stating that these communication services constitute activities of strategic importance for the National Defense and Security system.

The requirements envisaged by these decrees effectively ceased for TIM in May 2021, due to the strategic-industrial choice made and the right of withdrawal exercised in regard to the non-European supplier previously used for these supplies.

Again as regards Golden Power, by Decree of November 16, 2020, the President of the Council of Ministers, following TIM's notification of the corporate operation involving FiberCop S.p.A., exercised the special powers imposing specific requirements. The provisions refer to the networks and plants included in the business unit transferred, requiring the adoption of adequate development, investment and maintenance plans to ensure their proper functioning and integrity, to guarantee continuity of universal service and satisfy the general needs and requirements in the medium and long term, also in consideration of technological evolution and the standards used in European networks.

National Cyber Security Perimeter

The framework of provisions regarding National Security has flanked the Golden Power regulations with those relating to the National Cyber Security Perimeter, established by Law no. 133 of November 18, 2019, converting Decree Law 105/2019 setting out "Urgent provisions on the national cyber security perimeter and regulating special powers in sectors of strategic importance".

The regulations in this area are hinged on three elements, which constitute the same number of obligations for TIM, as strategic operator: the adoption of security measures aimed at guaranteeing high security levels for ICT assets, the secure award of ICT supplies and the notification of security incidents.

On July 30, 2020, DPCM (Decree of the President of the Council of Ministers) no. 131 was issued, which identifies the subjects coming under the scope of the Perimeter and defines the criteria to be applied when compiling the list of ICT assets relative to essential services; by subsequent decrees, the procedures were defined for the award/procurement of ICT supplies, the categories of assets coming under that scope identified and the tasks of the CVCN - National Assessment and Certification Center - assigned and procedures established by which to notify incidents impacting ICT assets relative to essential services, classifying them according to their severity.

The regulatory framework on cyber security is completed by the establishment of the National Cyber Security Agency, designed to protect national interest in the field of cybernetic space security.

Compliance with these obligations means, for TIM, an impact in organizational terms and as regards operative processes, in line with the restrictions aiming to guarantee a high level of security of networks, information systems and the computer services of public administrations, public and private operators and entities based in Italy, in consideration of the fact that such elements are responsible for the performance of a service that is essential for the maintenance of civil, social or economic activities, fundamental for the interests of the State and the malfunctioning, interruption, even partial, or improper use of which could damage national security.

Failure by TIM to observe the regulatory obligations entails administrative fines of up to 1.8 million euros. In addition, the use of products and services without communication or passing of tests or in breach of the conditions envisaged may result in the application of the accessory administrative sanction of incapacity to hold appointments of management, administration and control in legal entities and companies, for a period of three years from the date on which the violation is ascertained. Finally, anyone providing information, data or elements of fact that are not true, in order to hinder or impact procedures and inspections and supervision, shall be punished by imprisonment from one to three years.

Risks relating to legal proceedings and the Regulatory Authorities

The TIM Group has to deal with disputes and litigation with tax authorities and government agencies, regulators, competition authorities, other telecommunications operators and other entities. The possible impacts of such proceedings are generally uncertain. In the event of settlement unfavorable to the Group, these issues may, individually or as whole, have an adverse effect, which may even be significant, on its operating results, financial position and cash flows.

INFORMATION FOR INVESTORS

Share capital of TIM S.p.A. at December 31, 2021

Share Capital	11,677,002,855.10 euros
Number of ordinary shares (without nominal value)	15,329,466,496
Number of savings shares (without nominal value)	6,027,791,699
Number of TIM S.p.A. ordinary treasury shares	115,942,196
Percentage of ordinary treasury shares held by the Group to total share capital	0.54%
Market capitalization (based on December 2021 average prices)	9,387 million euros

On May 25, 2016, the Shareholders' Meeting approved amendments to the company name, introducing the name "TIM S.p.A." as an alternative to "Telecom Italia S.p.A.".

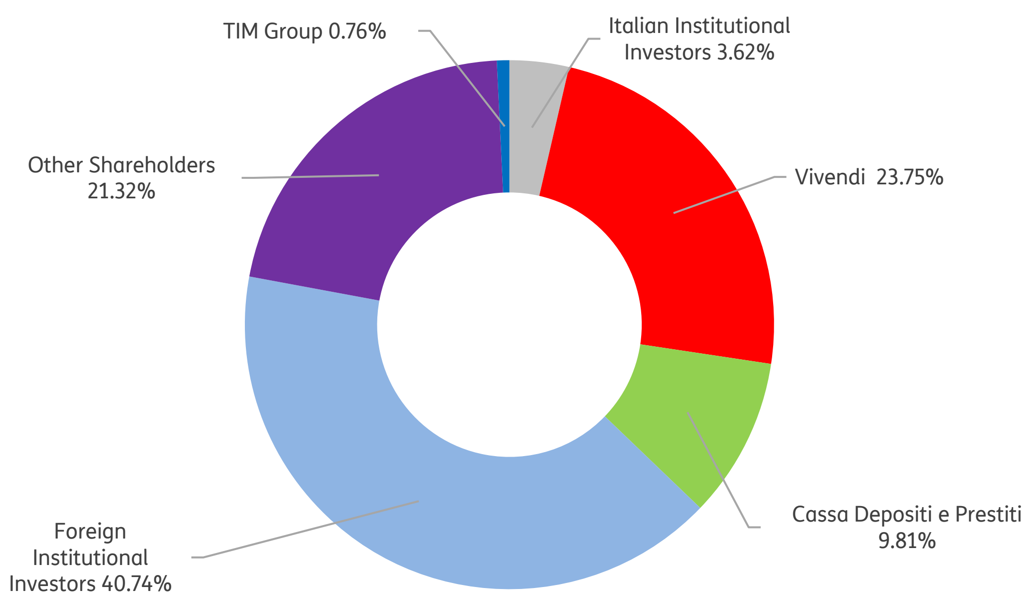
TIM S.p.A. ordinary and savings shares are listed on the Italian stock exchange (FTSE index), whereas the ordinary shares of TIM S.A. are listed in Brazil under B3 (formerly the BM&F/Bovespa).

	TIM - Telecom Italia		TIM S.A.
Code	ordinary shares	savings shares	
Stock exchange	IT0003497168	IT0003497176	BRTIMSACNOR5
Bloomberg	TIT IM	TITR IM	TIMS3 BZ
Reuters	TLIT.MI	TLITn.MI	TIMS3.SA

Ordinary shares of TIM S.A. were also listed on the NYSE (New York Stock Exchange); share prices are set through ADS (American Depositary Shares) representing 5 ordinary shares of TIM S.A.

Shareholders

Shareholder composition according to the Shareholders Book at December 31, 2021, supplemented by communications received and other available sources of information (ordinary shares):



Major Holdings in Share Capital

Taking into account the entries in the Shareholders Book, communications sent to Consob and to the Company pursuant to Italian Legislative Decree 58 of February 24, 1998, Article 120, and other available sources of information, the relevant holdings **(above the 3% threshold)** of TIM S.p.A.'s ordinary share capital are as follows:

Holder	Type of ownership	Percentage of ownership
Vivendi S.A.	Direct	23.75%
Cassa Depositi e Prestiti S.p.A.	Direct	9.81%

Common Representatives

- The special meeting of the savings shareholders held on May 24, 2019 renewed the appointment of Dario Trevisan as the common representative for three financial years, up to the approval of the financial statements for the year ended December 31, 2021. Upon completion of the shareholders' meeting called to approve the financial statements for the year 2021, the general category meeting will be called to renew the common representative of savings shareholders.
- The "Telecom Italia S.p.A. 2002-2022 Floating Rate bonds, Open Special series, reserved for subscription by employees of the Telecom Italia Group, in service or retired" reached maturity on January 1, 2022 and was therefore repaid by the company during that same month of January 2022.

Rating at December 31, 2021

At December 31, 2021, the three rating agencies – Standard & Poor's, Moody's and Fitch Ratings – rated TIM as follows:

	Rating	Outlook
STANDARD & POOR'S	BB	Stable
MOODY'S	Ba2	Negative
FITCH RATINGS	BB+	Stable

On March 08, 2022, the ratings agency Moody's modified the rating from Ba2 to Ba3, confirming the outlook relative to its opinion on TIM as "Negative".

Waiver of the obligation to publish disclosure documents for extraordinary transactions

On January 17, 2013, the Board of Directors of TIM S.p.A. resolved to exercise the option, as per article 70 paragraph 8 and article 71 paragraph 1-bis of the Consob Regulation 11971/99, to waive the obligations to publish disclosure documents in the event of significant operations such as mergers, demergers, capital increases by means of the transfer of assets in kind, acquisitions and disposals.

Conditions for the listing of shares of parent companies established and regulated by the law of states outside the European Union

TIM S.p.A. confirms the existence as at December 31, 2021 of the conditions referred to in article 15, paragraph 1, letter a), b) and c), point i) of Consob Regulation no. 20249/2017 as amended, for the listing of their shares on regulated markets.

RELATED-PARTY TRANSACTIONS

In accordance with Article 5, subsection 8 of Consob Regulation 17221 of March 12, 2010 concerning "Related-party transactions" as subsequently amended, no significant transactions were conducted in 2021, as defined by Article 4, subsection 1a of the aforementioned regulation, that had a material impact on the financial position or the performance of the TIM Group and TIM S.p.A.

In addition, there were no changes or developments with respect to the related-party transactions described in the 2020 Report on Operations which had a significant effect on the financial position or on the performance of the TIM Group and TIM S.p.A. in 2021.

Related-party transactions, when not dictated by specific laws, were conducted at arm's length. They were performed in compliance with the internal procedure, which sets forth rules designed to ensure the transparency and fairness of the transactions in accordance with Consob Regulation 17221/2010. The current procedure is available on the website gruppotim.it, under the Group section/Governance tools channel.

For information on relationships with related parties, see the Financial Statement Statements and the "Related-party transactions" Notes of Consolidated Financial Statements and the Separate Financial Statements.

ALTERNATIVE PERFORMANCE MEASURES

In this Report on Operations, in the TIM Group Consolidated Financial Statements and in the Separate Financial Statements of the Parent, TIM S.p.A., for the year ended December 31, 2021, in addition to the conventional financial performance measures established by IFRS, the TIM group also presents certain alternative performance measures for a better understanding of its performance of operations and financial position. Such measures, which are presented in the periodical financial reports (annual and interim), should, however, not be considered as a substitute for those required by IFRS.

Specifically, following the adoption of IFRS 16, the TIM Group presents the following alternative performance measures:

- **EBITDA adjusted After Lease ("EBITDA-AL")**, calculated by adjusting the Organic EBITDA, net of the non-recurring items, from the amounts connected with the accounting treatment of the lease contracts according to IFRS 16. This financial measure is used by TIM as the financial target in internal presentations (business plans) and in external presentations (to analysts and investors). It represents a useful unit of measurement for the evaluation of the operating performance of the Group (as a whole and at the Business Unit level) and of the Parent, TIM S.p.A., in addition to EBIT;
- **Adjusted net financial debt After Lease**, calculated by excluding from the adjusted net financial debt the net liabilities related to the accounting treatment of lease contracts according to IFRS 16. TIM believes that the Adjusted net financial debt After Lease represents an indicator of the ability to meet its financial obligations;
- **Equity Free Cash Flow After Lease**, calculated by excluding from the Equity Free Cash Flow the amounts related to lease payments. In particular, this measure is calculated as follows:

+	Equity Free Cash Flow
-	Principal share of lease payments

This financial measure is used by TIM as the financial target in internal presentations (business plans) and in external presentations (to analysts and investors) and is a useful indicator of the ability to generate Free Cash Flow.

The other alternative performance measures used are described below:

- **EBITDA**: this financial measure is used by TIM as the financial target in internal presentations (business plans) and in external presentations (to analysts and investors). It represents a useful unit of measurement for assessing the operating performance of the Group (as a whole and at Business Unit level) and of the Parent, TIM S.p.A., in addition to **EBIT**. These measures are calculated as follows:

Profit (loss) before tax from continuing operations	
+	Finance expenses
-	Finance income
+/-	Other expenses (Income) from investments(1)
+/-	Share of losses (profits) of associates and joint ventures accounted for using the equity method(2)
EBIT – Operating profit (loss)	
+/-	Impairment losses (reversals) on non-current assets
+/-	Losses (gains) on disposals of non-current assets
+	Depreciation and amortization
EBITDA – Operating profit before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets	

(1) Expense/(income) from investments for TIM S.p.A..

(2) Line item in Group consolidated financial statements only.

- **Organic change and impact of the non-recurring items on revenues, EBITDA and EBIT**: these measures express changes (amount and/or percentage) in Revenues, EBITDA and EBIT, excluding, where applicable, the effects of the change in the scope of consolidation, the exchange differences and the non-recurring events and transactions. TIM believes that this method of presentation provides a more complete and effective interpretation of the Group's operating performance (as a whole and with reference to the Business Units) and of the Parent; it is therefore also used in the presentations to analysts and investors. This Report on Operations provides a reconciliation between the "reported figure" and the "organic excluding the non-recurring items" figure.
- **EBITDA margin and EBIT margin**: TIM believes that these margins represent useful indicator of the ability of the Group as a whole and at Business Unit level, and of the Parent to generate profits from its revenues. In fact, EBITDA margin and EBIT margin measure the operating performance of an entity by analyzing the percentage of revenues that are converted into EBITDA and EBIT, respectively. Such indicators are used by TIM in internal presentations (business plans) and in external presentations (to analysts and investors) in order to illustrate the results from operations also through the comparison of the operating results of the financial year being reported with those of the previous years.
- **Net Financial Debt**: TIM believes that the Net Financial Debt represents an accurate indicator of its ability to meet its financial obligations. It is represented by Gross Financial Debt less Cash and Cash Equivalents

and other Financial Assets. The Report on Operations includes two tables showing the amounts taken from the statements of financial position and used to calculate the Net Financial Debt of the Group and Parent.

To provide a better representation of the true performance of Net Financial Debt, in addition to the usual indicator (renamed "Net financial debt carrying amount"), the TIM Group reports a measure called "Adjusted net financial debt", which neutralizes the effects caused by the volatility of financial markets. Given that some components of the fair value measurement of derivatives (contracts for setting the exchange and interest rate for contractual flows) and of derivatives embedded in other financial instruments do not result in actual monetary settlement, the Adjusted net financial debt excludes these purely accounting and non-monetary effects (including the effects of IFRS 13 – Fair Value Measurement) from the measurement of derivatives and related financial assets/liabilities.

Net financial debt is calculated as follows:

+	Non-current financial liabilities
+	Current financial liabilities
+	Financial liabilities directly associated with Discontinued operations/Non-current assets held for sale
A)	**Gross financial debt**
+	Non-current financial assets
+	Current financial assets
+	Financial assets relating to Discontinued operations/Non-current assets held for sale
B)	**Financial assets**
C=(A - B)	**Net financial debt carrying amount**
D)	**Reversal of fair value measurement of derivatives and related financial liabilities/assets**
E=(C + D)	**Adjusted net financial debt**

- **Equity Free Cash Flow (EFCF)**: this financial measure is used by TIM as the financial target in internal presentations (business plans) and in external presentations (to analysts and investors); it represents the free cash flow available for the remuneration of own capital, to repay debt and to cover any financial investments and payments of licenses and frequencies. In particular, the indicator highlights the change in adjusted net financial debt without considering the impacts of payment of dividends, changes in equity, acquisitions/disposals of equity investments, outlay for the purchase of licenses and frequencies, increases/decreases of finance lease liabilities payable (new lease operations, renewals and/or extensions, cancellations/early extinguishing of leases).

  The Equity Free Cash Flow measure is calculated as follows:

	Reduction/(Increase) in adjusted net financial debt from continuing operations
+/-	Impact for finance leases (new lease operations and/or renewals and/or extensions (-)/any terminations/early extinguishing of leases (+))
-	Payment of TLC licenses and for the use of frequencies
+/-	Financial impact of acquisitions and/or disposals of investments
-	Dividend payment and Change in Equity
	Equity Free Cash Flow

2021

TIM S.p.A.

Revenues: **12,397** Millions of Euros

Key operating and financial data

EBITDA		EBITDA MARGIN		EBITDA ADJUSTED AFTER LEASE	
2,637	Millions of Euros	30.4%	organic excluding non recurrent	3,268	Millions of Euros

NET FINANCIAL DEBT CARRYING AMOUNT

21,937 Millions of Euros

ADJUSTED NET FINANCIAL DEBT - AFTER LEASE

17,485 Millions of Euros

CAPITAL EXPENDITURES & LICENSES

2,294 Millions of Euros

HEADCOUNT AT YEAR END

37,064 numbers

REVIEW OF KEY OPERATING AND FINANCIAL DATA - TIM S.P.A.

Main changes in the corporate structure

The main changes in the corporate structure during 2021 are highlighted.

Conferral of the business unit to Noovle S.p.A.

Starting January 1, 2021, the conferral is effective to Noovle S.p.A. of the TIM S.p.A. business unit comprising the assets and liabilities and employees involved in the supply of services for the Cloud and Edge Computing business and the rent of spaces, including virtual, also offered through a dedicated network of data centers.

The asset values concerned by the conferral are reported:

(million euros)	TIM S.p.A. 1/1/2021	Conferral of Green to Noovle S.p.A.	TIM S.p.A. post-conferral 1/1/2021
Assets			
Non-current assets	**61,804**	**(872)**	**60,932**
Intangible assets	28,551	(1,481)	27,070
Tangible assets	10,335	(362)	9,973
Rights of use assets	4,096	(91)	4,005
Other non-current assets	18,822	1,062	19,884
Current assets	**5,546**	**782**	**6,328**
Total assets	**67,350**	**(90)**	**67,260**
Liabilities			
Equity	**25,008**		**25,008**
Non-current liabilities	**32,717**	**(84)**	**32,633**
Current liabilities	**9,625**	**(6)**	**9,619**
Total Liabilities and Equity	**67,350**	**(90)**	**67,260**

Business rationale for the transaction

With the aim of extending its leadership in cloud services, seizing the business opportunities presented by the market and maximizing the efficiency and effectiveness objectives, particularly in terms of overall security, TIM has decided to concentrate its assets and skills in the cloud area that were spread among several of TIM's departments into a single company. Also in business terms, the transaction is the outcome of a collaboration agreement with Google Cloud (a partnership signed in the first quarter of 2020) for the creation of innovative public, private and hybrid cloud services to enrich TIM's offer of technological services.

The transaction ensures a strong focus on that sector and favors an acceleration of cloud sales on the market as well as an effective and efficient management of the partial migration of the computational workloads of TIM's IT to the public cloud, guaranteeing the optimization of infrastructure and operations.

The transaction also allows the further development of skills in the cloud area and the achievement of major sustainability objectives.

Operation structure

The transaction took the form of a contribution in kind, pursuant to Art. 2343 ter, second paragraph, letter b) of the Italian Civil Code, of a TIM business complex to Noovle S.p.A., a company set up and wholly controlled by TIM S.p.A. for this purpose and subject to its management and coordination.

The conferral involved the assignment to the transferee company of a business unit consisting of assets, liabilities, contracts of purchase and sale, employees and anything else intended for and attributable to the provision i) of services relating to the cloud business, including ICT services to be supplied to TIM itself, and ii) the rental of spaces, including virtual ones, also offered through a dedicated network of data centers.

Agreements with TIM signed under the scope of the conferral

With a view to ensuring the homogeneous management of the commercial relationship with TIM and to guaranteeing continuity of operations and consolidation of its processes, early 2021, Noovle signed various agreements with the parent company, in particular:

- the two Master Service Agreements, signed on February 19, 2021, regulate on the one hand, the Services supplied by Noovle to the TIM client (including Site Management Services, Proximity services, Assurance; Security Management, Architecture & Engineering Services, Operating Governance Services, Demand Management, Infrastructure and Project Delivery, System Development & Management, COE – Centers of Excellence, Offering, Supply and Conditioning Services, Systems Management/Discovery Operations) and, on the other, the Services supplied by TIM in connection with the operative needs of Noovle, also in order to assure consistency with the Group's processes;

- under the scope of the carve out, Noovle was also conferred the specific project agreements of the TIM-Google partnership. The specified collaboration agreement with Google Cloud, signed by TIM in February 2020, is in fact structured into a main agreement and specific project contracts.

Conferral of the business unit to FiberCop S.p.A.

Starting March 31, 2021, the conferral is effective to FiberCop S.p.A. of the TIM S.p.A. business unit comprising the goods, assets and liabilities and legal relations organized functionally for the supply of passive fiber or copper access services, used by TIM, and at the service of other authorized operators (OAOs), by means of the secondary network (the "last mile").
At the same time, the purchase was completed by Teemo Bidco, an indirect subsidiary of KKR Global Infrastructure Investors III L.P., of 37.5% of FiberCop from TIM and Fastweb has subscribed FiberCop shares corresponding to 4.5% of the company's capital, through the conferral of the stake held in Flash Fiber, which was simultaneously incorporated into FiberCop.
The comprehensive effects of the conferral to TIM S.p.A. are reported, as well as the effects consequent to said sale of the holding in FiberCop to KKR:

(million euros)	TIM S.p.A. pre-conferral 3/31/2021	Comprehensive impacts for the conferral of the FiberCop branch	Sale of equity investment	TIM S.p.A. post-conferral 3/31/2021
Assets				
Non-current assets	**59,964**	**(198)**	**(1,762)**	**58,004**
Intangible assets	26,893	(4,670)		22,223
Tangible assets	9,809	(2,446)		7,363
Rights of use assets:	3,437	27		3,464
Conferral of rights of use assets		*(130)*		
Activation of new rights of use to FiberCop		*157*		
Other non-current assets:	19,825	6,891	(1,762)	24,954
Investments		*4,393*	*(1,741)*	
Non-current financial assets		*2,500*		
Deferred tax assets		*(2)*	*(21)*	
Current assets	**6,329**	**(95)**	**1,759**	**7,993**
Total assets	**66,293**	**(293)**	**(3)**	**65,997**
Liabilities				
Equity	**24,576**		**(3)**	**24,573**
Non-current liabilities	**29,718**	**(278)**		**29,440**
Non-current financial liabilities	**24,805**			**24,805**
Employee benefits	**879**			**879**
Provisions	**617**	**(128)**		**489**
Miscellaneous payables and other non-current liabilities	**3,417**	**(150)**		**3,267**
Current liabilities	**11,999**	**(15)**		**11,984**
Total Liabilities and Equity	**66,293**	**(293)**	**(3)**	**65,997**

Transaction rationale

The establishment of FiberCop S.p.A. (hereinafter also "FiberCop" or the "Company") is part of the project to expand optical fiber coverage throughout Italy; it aims to play a key role in bridging the digital divide in Italy, and accelerating customer transition from copper to fiber. Specifically:

- the company's purpose is the design, construct and manage infrastructure for the provision of wired access to the end users' premises to telecommunications operators;
- FiberCop operates in accordance with the co-investment model and is the first in Europe to apply the new European Electronic Communications Code nationwide;
- FiberCop has a network asset that already offers UBB connections to around 94% of fixed lines thanks to FTTC and FTTH technology, and will continue to develop FTTH coverage, with connection speeds of over 1 Gigabit. The objective is to reach 75% of the housing units in gray and black areas by 2025.

The company was established on November 2, 2020 with share capital fully paid in by the single shareholder TIM.

On March 31, 2021, following the co-investment agreements between TIM, KKR Infrastructure L.P. (hereinafter also "KKR") and Fastweb S.p.A. (hereinafter "Fastweb"), KKR finalized its entry into FiberCop's capital through Teemo Bidco Sarl (37.5%) and Fastweb (4.5%).
In particular, on March 31, 2021 the following transactions were finalized:

- Conferral of TIM's secondary network (from the street cabinet to customers' homes);
- Conferral of Fastweb's shareholding in Flash Fiber S.r.l. (hereinafter "Flash Fiber"), a company owned by TIM (80%) and Fastweb (20%);
- Merger of Flash Fiber into FiberCop, backdating the accounting and tax effects to January 1, 2021, which resulted in the contribution of the fiber optic network previously developed in 29 cities;
- Purchase by Teemo Bidco Sarl of 37.5% of FiberCop from TIM.

In detail, the FiberCop shareholders' meeting, passed resolution on March 24, 2021 to approve the paid capital increase, with a first tranche reserved for TIM totaling 4,643 million euros (8.95 million euros of which to be allocated to share capital) to be released through the contribution in kind of the business unit relating to the "secondary network", and a second tranche reserved for the company Fastweb totaling 210 million euros (1 million euros of which to be allocated to share capital) to be released through the conferral of the 20% stake in Flash Fiber's share capital.
At the same time, the merger by incorporation of Flash Fiber into FiberCop involved the elimination of the full shareholdings, valued at 460 million euros against the merged company equity of 290 million euros at March 31, 2021, and the recognition of a negative merger reserve of 170 million euros (18 million euros for the TIM portion and 152 million euros for the Fastweb portion).
Following these transactions, the share capital of FiberCop S.p.A. broke down as follows at December 31, 2021: TIM S.p.A. 58%; Teemo Bidco Sarl 37.5%; Fastweb S.p.A. 4.5%.

Master Agreements

To regulate the commercial relationship between TIM and FiberCop and ensure continuity of operations and consolidation of its processes, TIM and FiberCop signed a number of agreements, including: the Master Service Agreement which governs the provision of services provided to TIM and FiberCop and vice versa; the IRU Master Agreement which governs FiberCop's grant to TIM of the right to use all of the installation or fiber optic infrastructure that has come under FiberCop's ownership; the Transitional Services Agreement with TIM which entrusts TIM with the management and development of the IT systems during FiberCop's start-up phase; as well as agreements for the provision of necessary general services by TIM for the company to operate. In addition to the agreement entered into with TIM, FiberCop signed the Master Service Agreement with Fastweb to regulate the provision of services by both parties as part of the network development project.

Obligations underlying the Contractual Commitments

The Master Service Agreement stipulated between TIM and FiberCop regulates the supply of reciprocal services within the secondary network infrastructure development project on Italian territory.
Under the scope of the Master Service Agreement, both parties have made certain commitments: TIM has made commitments to FiberCop on an annual basis in terms of minimum purchases of services and migration of the customer base from copper to fiber optic and the development of the horizontal FTTH network; FiberCop has made commitments to purchase the primary network and the construction and maintenance services from TIM.
In connection with these commitments, the agreements envisage penalties applicable to either party if they should not be respected, and rights in the favor of Teemo BidCo, as minority shareholder, to protect against any failure by TIM to execute the contractual commitments made; this is all in line with standard market practice.
These penalties charged to the parties and rights of the minority shareholder are assessed when drafting the financial statements and subject to reconsideration at each accounting end date.

Acquisition of BT Italia business units

On June 30, 2021, the purchase of the BT Italia Business Unit came into effect, offering services to public administration customers and small and medium business (SMB) customers. The purchase also includes support for customers of the SMB Business Unit, supplied by Atlanet, the BT Contact Center of Palermo.
The operation, which is in line with the TIM Group's 2021-2023 'Beyond Connectivity' strategic plan, aims to leverage its product factories to increase the range of services for the digital transformation of the public administration and strengthen the offer of solutions dedicated to the SME market.
The operation is classified as a business combination and consequently treated in accordance with IFRS 3, in consideration of the fact that it concerns the acquisition of business units that include an organized workforce with the competence and experience necessary to carry out the "critical" process for the production of outputs, as well as suitable production factors such as tangible and intangible assets, contracts with customers and suppliers, employees, namely economic resources able to contribute towards creating production and generating economic benefits.
Below are the comprehensive effects of the acquisition of the BT Italia business units including the Atlanet support activities:

(million euros)	TIM S.p.A. pre-acquisitions 6/30/2021	BT Italia business units	TIM S.p.A. post-acquisitions 6/30/2021
Assets			
Non-current assets	**58,840**	**8**	**58,848**
Intangible assets	22,338	—	22,338
Tangible assets	7,263	7	7,270
Rights of use assets	3,388	—	3,388
Other non-current assets	25,851	1	25,852
Current assets	**6,004**	**26**	**6,030**
Total assets	**64,844**	**34**	**64,878**
Liabilities			
Equity	**24,669**	**—**	**24,669**
Non-current liabilities	**28,944**	**3**	**28,947**
Non-current financial liabilities	**24,818**	**—**	24,818
Employee benefits	**820**	**2**	822
Provisions	**384**	**1**	385
Miscellaneous payables and other non-current liabilities	**2,922**	**—**	2,922
Current liabilities	**11,231**	**31**	**11,262**
Total Liabilities and Equity	**64,844**	**34**	**64,878**

Non-recurring events

In 2021 and 2020, TIM S.p.A. recognized **net non-recurring operating expenses** connected with events and transactions that by their nature do not recur as part of continuing operations, which are reported when their amount is material. Non-recurring charges include, among others, any goodwill impairment losses, provisions for regulatory disputes and potential liabilities related to them, liabilities with customers and/or suppliers, and provisions for onerous contracts, charges associated with corporate reorganization/restructuring and prior-year adjustments.

In detail:

(million euros)	2021	2020
Non-recurring expenses/(income)		
Revenues	**5**	**39**
Revenue adjustments	5	39
Other income	**(2)**	**—**
Recovery of operating expenses	(2)	—
Acquisition of goods and services and Change in inventories	**38**	**58**
Expenses related to agreements and the development of non-recurring projects	38	58
Employee benefits expenses	**358**	**69**
Charges connected to corporate reorganization/restructuring and other costs	358	69
Other operating expenses	**735**	**145**
Sundry expenses and other provisions	735	145
Impact on Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)	**1,134**	**311**
Goodwill Impairment loss	4,120	—
Impact on EBIT - Operating profit (loss)	**5,254**	**311**

Non-recurring events for the year 2021 include, in particular:

- 4,120 million euros for the impairment loss on goodwill attributed to domestic activities. The impairment test, carried out when drawing up the 2021 Financial Statements, was performed by referring to the flows of the 2022 Industrial Plan and the projections up to 2026 of the domestic market in its current conditions, and using a discount rate updated to the financial market conditions as at December 31, 2021. The new 2022 Industrial Plan is based on the results of the 2021 final accounting, reflects realistic expectations on future developments and outlines all the actions to create value for the shareholders. The year showed an impairment loss, which is attributed entirely to goodwill;
- 735 million euros in other operating expenses, mainly referring to provisions made for disputes, transactions, regulatory sanctions and related potential liabilities as well as expenses connected with the COVID-19 emergency for provisions made as a consequence of the worsening of the expected credit losses of Corporate customers, connected with the expected evolution of the pandemic.

  Other operating expenses - Sundry expenses and provisions include 548 million euros for the posting of a Contractual Risk Provision for Onerous Contracts (IAS 37) relating to ongoing relations with some counterparties for the offer of multimedia content.

  In particular, they include the accrual of the Net Present Value of the negative margin connected with some partnerships, including the one in place between TIM and DAZN for the offer in Italy on the TIMVISION platform of DAZN content, including all matches of the Serie A football championship for the seasons 2021-22, 2022-23 and 2023-24.

  In greater detail, as part of the definition of the 2022-2024 Strategic Plan, the business plan hypotheses have been updated for the current football season and the next two, pointing out that the total margins of the project, including TIM's contractual commitments towards DAZN in terms of fees, for lack of remedy by DAZN of certain breaches already disputed, is very much negative.

  Use of the Risk Provision throughout the contractual term will make it possible to offset the negative item of the margin (EBITDA), thereby obtaining null EBIT (organic or operative margin) for the sale of some content connected with the DAZN football offer.

  With specific regard to the Contractual Risk Provision for Onerous Contracts relating to content, the financial reports for future years and throughout the life of the contract will indicate:

  - the amount used of the Provision for risks covering the negative margin;
  - the amount of the total organic margins (organic EBITDA) that would have been recorded without using said Provision;
  - the financial outlay connected with the payments due to counterparties.
- 358 million euros in employee benefit expenses mainly connected with business reorganization/restructuring processes following the application of art. 4 of Law no. 92 of June 28, 2012, as defined in the trade union agreements signed between the Company and the trade unions;

- 38 million euros for expenses related to agreements and the development of non-recurring projects, as well as costs for purchases relating to supplies that became necessary for the management of the health emergency;
- 3 million euros in revenue adjustments and other income.

Non-recurring expenses for 2020 mainly included discounts on revenues following TIM S.p.A. initiatives in support of customers to fight the COVID-19 emergency (39 million euros), expenses connected with agreements and the development of non-recurring projects as well as costs for purchases relative to procurements that have been made necessary to manage the health emergency (58 million euros), employee benefit expenses mainly connected with business reorganization/restructuring processes and other costs (69 million euros), other operating expenses for 145 million euros, mainly referring to provisions made and expenses connected with the management of receivables deriving from the deterioration of the macroeconomic context following the COVID-19 emergency, expenses for regulatory sanctions and expenses related to agreements and the development of non-recurring projects.

Operating Performance

(million euros)		2021	2020	% Change	
					organic excluding non-recurring
		(a)	(b)	(a-b)	
Revenues		12,397	12,030	3.1	2.8
EBITDA	(1)	2,637	5,180	(49.1)	(31.3)
EBITDA Margin	(1)	21.3%	43.1%	(21.8) pp	
EBIT	(1)	(4,522)	1,576	(386.9)	(61.2)
EBIT Margin	(1)	(36.5%)	13.1%	(49.6) pp	
Profit (loss) for the year		(8,314)	7,161		43.9
Capital expenditures		2,294	2,485	(7.7)	
		12/31/ 2021	12/31/ 2020	Change Amount	
		(a)	(b)	(a-b)	
Net financial debt carrying amount	(1)	21,937	27,324	(5,387)	
Adjusted net financial debt	(1)	20,612	25,783	(5,171)	
Headcount at year end (number)		37,064	38,516	(1,452)	

(1) Details are provided under "Alternative Performance Measures".

Revenues

2021 revenues came to 12,397 million euros (12,030 million euros in 2020), with an increase of 367 million euros or +3.1%. 2021 revenues include adjustments to non-recurring revenues for 5 million euros, while 2020 revenues included 39 million euros for non-recurring items, of which 38 million euros connected with the TIM S.p.A. commercial initiatives in support of customers to fight the COVID-19 emergency.

Revenues from stand-alone services amounted to 10,651 million euros (-108 million euros compared to 2020, -1.0%) and reflect the impacts of the competitive context on the customer base and a reduction in ARPU levels. In particular, revenues from the Mobile market Stand-alone services are down (-202 million euros on the previous year, -6.0%), while revenues from the Fixed market Stand-alone services improved (+80 million euros compared to the previous year, +1.0%), thanks to the increase in revenues from network maintenance services to FiberCop S.p.A., despite the worsening of the Retail segment.

Revenues from Handsets and Bundles & Handsets, including the change in work in progress, amounted to 1,746 million euros in 2021, up 475 million euros compared to 2020, mainly following revenues from the sale of network infrastructure to FiberCop S.p.A..

The sales segments show the following changes compared to 2020:

(million euros)	2021	2020	Changes
Revenues	**12,397**	**12,030**	**367**
Consumer	5,411	5,892	(481)
Business	3,982	3,953	29
Wholesale	1,942	1,910	32
Other	1,062	275	787

In particular:

- **Consumer**: 2021 revenues of the Consumer segment totaled 5,411 million euros and decreased by 481 million euros on 2020 (-8.2%), suffering the impact of the challenging competitive context and greater regulation of commercial processes. The trend seen in total revenues also applied to revenues from stand-alone services, which amounted to 4,723 million euros, down by 449 million euros (-8.7% compared to the previous year). In particular:
  - **Revenues for Mobile segment Stand-alone services** were equal to 2,161 million euros, down 173 million euros (-7.4%) compared to 2020, mainly due to the competition;
  - **revenues from Fixed Stand-alone services** amounted to 2,596 million euros, down on 2020 (-275 million euros, -9.6%), mainly due to the reduction in ARPU levels and the lesser Customer Base.

Revenues for Handsets and Bundles & Handsets in the Consumer segment amounted to 688 million euros, down 32 million euros compared to 2020 (-4.4%), and mainly reflected the lesser sales volumes of modems on Fixed.

- **Business**: revenues for the Business segment amounted to 3,982 million euros, up by 29 million euros on 2020 (+0.7%, of which +0.1% for revenues from the stand-alone services component). In particular:
  - **total Mobile revenues** in 2021 amounted to 935 million euros with an increase of 24 million euros compared to 2020 (+2.7%), which in particular reflects the increase in Handset revenues (+35 million euros, +69.7%), partly offset by the decrease in revenues from stand-alone services (-1.2%) following a reduction in ARPU levels;
  - **total Fixed revenues** in 2021 came to 3,104 million euros, up 2 million euros on 2020; they are therefore essentially in line with the previous year (+0.1%), recording an increase in revenues from stand-alone services (+0.4%) following the performance seen in revenues from ICT services.
- **Wholesale Market**: Wholesale Market segment revenues in 2021 came to 1,942 million euros, up by 32 million euros (+1.6%) compared to 2020, driven mainly by the growth in accesses in the ultrabroadband segment.
- **Other**: the Other segment records 2021 revenues of 1,062 million euros, up by 787 million euros on 2020; it should be noted, in particular, that starting 2021, the item includes TIM revenues with respect to the subsidiary FiberCop S.p.A. (effective from said conferral of the business unit related to the copper and fiber access network), mainly relating to the sale of infrastructures and network maintenance services.

EBITDA

2021 **EBITDA** is 2,637 million euros (5,180 million euros in 2020), accounting for 21.3% of revenues, down 21.8 percentage points on the previous year (43.1%).

Organic EBITDA - net of the non-recurring items amounted to 3,771 million euros; the EBITDA margin was 30.4% (45.5% in 2020) and records a reduction of 1,720 million euros on 2020. In 2021 TIM S.p.A. recorded net non-recurring expenses for a total of 1,134 million euros, of which 25 million euros due to the COVID-19 emergency in Italy.
Non-recurring charges include, among others, provisions for disputes, transactions and regulatory sanctions and potential liabilities related to them, liabilities with customers and/or suppliers and provisions for onerous contracts, as well as charges associated with corporate reorganization/restructuring. For further details, in addition to that reported in the "Non-recurring events" chapter of this report on operations, see the Note "Non-recurring events and transactions" in the TIM S.p.A. Separate Financial Statements as at December 31, 2021.

In 2020, TIM S.p.A. recorded non-recurring charges for a total of 311 million euros, of which 106 million euros were attributable to the COVID-19 emergency in Italy. It was also affected by non-recurring charges connected with corporate reorganization/restructuring processes and provisions for disputes, regulatory sanctions and potential liabilities related to them with customers and/or suppliers and to charges related to corporate reorganization/restructuring as well as to the adjustments to revenues from previous years.

Organic EBITDA, net of the non-recurring items, is calculated as follows:

(million euros)	2021	2020	Changes	
			absolute	%
EBITDA	2,637	**5,180**	**(2,543)**	**(49.1)**
Non-recurring expenses (Income)	1,134	311	823	
ORGANIC EBITDA - excluding Non-recurring items	3,771	**5,491**	**(1,720)**	**(31.3)**

The following elements also affected EBITDA:

- **Other income**

(million euros)	2021	2020	Changes
Late payment fees charged for telephone services	29	40	(11)
Recovery of employee benefit expenses, purchases and services rendered	33	16	17
Capital and operating grants	26	31	(5)
Damages, penalties and recoveries connected with litigation	22	17	5
Estimate revisions and other adjustments	71	59	12
Special training income	66	13	53
Other	75	13	62
Total	322	**189**	**133**

During 2021, "Special training income" included repayments valued for the hours of training delivered during the year (more than 3 million hours, involving approximately 37,000 employees); these repayments are correlated with the activities tied to the training project financed through the Fondo Nuove Competenze (New Skills Fund - the Ministerial fund aimed at increasing innovative skills in companies), which started in December 2020 and drew to a close in May 2021.

- **Acquisition of goods and services**

(million euros)	2021	2020	Changes
Acquisition of goods	1,053	926	127
Revenues due to other TLC operators and costs for telecommunications network access services	707	692	15
Commercial and advertising costs	1,130	957	173
Professional and consulting services	104	114	(10)
Power, maintenance and outsourced services	1,115	1,018	97
Lease and rental costs	413	306	107
Other	2,237	598	1,639
Total acquisition of goods and services	6,759	**4,611**	**2,148**
% of Revenues	54.5	*38.3*	*16.2 pp*

Acquisition of goods and services increased by 2,148 million euros due to the greater purchases of goods for resale, sales expenses taking into account the improvement of deferred contract costs linked to the reduction of churn, leased asset costs, mainly for software license rental and other miscellaneous service costs, as well as greater hosting charges on non-strategic sites connected with the Master Service Agreement (MSA) stipulated between TIM S.p.A. and INWIT, with effect from March 31, 2020.

It includes a non-recurring component of 38 million euros for expenses related to agreements and the development of non-recurring projects, as well as 4 million euros for purchases relating to supplies that became necessary for the management of the health emergency.

The specific item "Other" mainly includes costs for external companies developing accesses on the network under the scope of existing delivery agreements with the Group companies (such as FiberCop), as well as facility and maintenance costs.

Employee benefits expenses

(million euros)	2021	2020	Changes
Ordinary employee expenses and costs	2,095	2,124	(29)
Restructuring expenses and allocations to employee and other provisions	358	69	289
Total employee benefits expenses	**2,453**	**2,193**	**260**

Employee benefits expenses increased by 260 million euros compared to 2020. The main factors that drove this change were:

- the decrease of 29 million euros of the ordinary employee costs, mainly due to the balance of savings consequent to the reduction in the average salaried workforce (amounting to a total of -2,092 average employees, of whom an average of -222 deriving from the application of the Expansion Contract) and the expenses related to the renewal of the National Collective Bargaining Agreement;
- the increase of 289 million euros in company restructuring costs as a consequence of the application of Art. 4 of Italian Law no. 92 of June 28, 2012, following the trade union agreement signed between the Company and the trade unions on March 8, 2021.

The headcount at December 31, 2021 amounted to 37,064 employees, a decrease of 1,452 compared to December 31, 2020 (38,516).

Other operating expenses

(million euros)	2021	2020	Changes
Write-downs and expenses in connection with credit management	217	328	(111)
Provision charges	674	1	673
TLC operating fees and charges	41	42	(1)
Indirect duties and taxes	58	53	5
Penalties, settlement compensation and administrative fines	127	120	7
Association dues and fees, donations, scholarships and traineeships	10	10	—
Other	52	51	1
Total	**1,179**	**605**	**574**

Other operating expenses for 2021 increased by 574 million euros and include non-recurring items for 735 million euros, mainly referring to disputes, transactions, expenses connected with regulatory sanctions and expenses related to agreements and the development of non-recurring projects, as well as provisions and expenses connected with credit management in connection with the COVID-19 emergency (20 million euros) following the worsening of the expected credit loss of corporate customers connected with the expected evolution of the pandemic. For further details, in addition to that reported in the "Non-recurring events" chapter of this report on operations, see the Note "Non-recurring events and transactions" in the TIM S.p.A. Separate Financial Statements as at December 31, 2021.
Note that "Write-downs and expenses in connection with credit management" shows a reduction of 111 million euros compared with 2020, which is the consequence of the consolidation of the program to optimize processes started in 2020, aimed at increasing the efficiency of credit management, all round, intervening on the whole process involving the customer. More specifically, reference is made to the acceptance, management and collection of debt through to the assessment model of the new commercial offers.
Non-recurring items recorded in 2020, for 145 million euros, mainly referred to provisions and expenses partly connected with credit management in relation to the COVID-19 emergency, which has led to a worsening of the expected credit loss of part of the customer base following deterioration of the macroeconomic context.

Depreciation, amortization and capital expenditures

2021 **depreciation and amortization** came to 2,996 million euros (3,582 million euros in 2020) and are as follows:

(million euros)	2021	2020	Changes
Amortization of intangible assets with a finite useful life	1,112	1,290	(178)
Depreciation of tangible assets	1,432	1,750	(318)
Amortization of rights of use assets	452	542	(90)
Total	**2,996**	**3,582**	**(586)**

The main aspects are listed below:

- **amortization of intangible assets** amounted to 1,112 million euros, down 178 million euros compared to 2020. This trend is mainly due to the revision of the useful life of the IT software applications; in actual fact, in 2021, following the start of the Digital Enterprise project and consequent verification of the effective and prospective duration of the systems impacted, the amortization period of assets used in fixed and mobile IT software development was revised, taking it from 3 to 6 years, with an impact of lesser period amortization for approximately 115 million euros. In addition, there has been a reduction of 68 million euros following the conferral to Noovle S.p.A. of software applications and systems, offset by greater amortization for 5 million euros, mainly following the launch of projects relating to software systems, service creation and the purchase of software licenses;
- **depreciation of proprietary tangible assets** comes to 1,432 million euros and shows a reduction of 318 million euros on the previous year, determined for 285 million euros by the impact on depreciation following 2021 conferrals (245 million euros following the conferral to FiberCop S.p.A. of the secondary network and 40 million euros following the conferral to Noovle S.p.A. of hardware management systems and owned buildings) and for 69 million euros by the consequent lesser investments in the various items of expenses correlated to the secondary network (subscriber connection units, fiber optic access and transport network, underground and overhead copper network, pole systems). The reduction has been partially offset by the estimated acceleration of depreciation as a consequence of both the switch-off of 3G, expected for June 2022 (equal to approximately 23 million euros) and the switch-off of part of the copper access network, hypothesized for end 2030 (equal to 16 million euros);
- **amortization of rights of use assets** comes to 452 million euros, a decrease of 90 million euros on last year, mainly following the reduction in property and base transceiver station lease contracts as well as following the conferral to Noovle S.p.A. of leased properties and to FiberCop S.p.A. of IRU contracts.

Capex totaled 2,294 million euros (2,485 million euros in 2020), with a reduction of 191 million euros. Details are as follows:

(million euros)	2021	2020	Changes
Investments in intangible assets with a finite useful life	1,055	959	96
Investments in tangible assets	1,167	1,468	(301)
Investments in rights of use assets	72	58	14
Total	**2,294**	**2,485**	**(191)**

Investments in intangible assets record a rise of 96 million euros, mainly determined by the investment to extend the deadline for rights of use in the 2100 MHz bandwidth to December 31, 2029 (currently envisaged to December 31, 2021; 240 million euros), partly offset by lesser investments linked to the conferral of the assets to Noovle.

Investments in tangible assets and rights of use record an overall reduction of 287 million euros. The reduction, connected with investments in tangible assets (-301 million euros) is due to the conferral to Fibercop and partially offset by an increase in investments in rights of use (+14 million euros), mainly following investments in leasehold improvements and rights of use in fiber optic.

Gains/(losses) on disposals of non-current assets

The item is negative for 43 million euros (negative for 14 million euros in 2020), mainly following the recording of capital losses for the closure of the contract with Flash Fiber, as part of the corporate conferral of the BU to FiberCop, thereafter merged with Flash Fiber and the consequent superseding of the previous Pay Per Use contract.

Impairment reversals (losses) on non-current assets

This item amounted to a negative 4,120 million euros (negative for 8 million euros in 2020).
In accordance with IAS 36, goodwill is not subject to amortization, but is tested for impairment on at least an annual basis, when preparing the company's separate financial statements.
The impairment test, conducted during the preparation of the 2021 Annual Financial Report, took as a reference the flows of the new 2022-2024 Industrial Plan - which, based on the results of the 2021 final

accounting, reflects realistic aspects of future developments and outlines all the actions to create value for shareholders - on the basis of the projections up to 2026, assuming the use of domestic market assets in continuity with the conditions at December 31, 2021 and using a discount rate updated to the financial market conditions at December 31, 2021.
The configuration of the recoverable amount is the Fair Value estimated on the basis of the income approach, which has highlighted a value reduction of 4,120 million euros of goodwill attributed to the domestic activities.

Further details are provided in the Note "Goodwill" to the Separate Financial Statements as at December 31, 2021 of TIM S.p.A.

EBIT

EBIT in 2021 amounted to a negative 4,522 million euros (1,576 million euros in 2020), with an EBIT margin of -36.5% (13.1% in 2020). EBIT in 2021 reflected the negative impact of non-recurring net charges, including the mentioned impairment loss on goodwill (4,120 million euros), for 5,254 million euros (311 million euros in 2020).

Organic EBIT, net of the non-recurring items, amounted to 732 million euros (1,887 million euros in 2020), with an EBIT margin of 5.9% (15.6% in 2020) and suffers not only the effect of the same dynamics already reported for EBITDA, but also the recording of capital losses from disposals on non-current assets for a total of 43 million euros, despite benefiting from a reduction in amortization/depreciation for a total of 586 million euros.
Further details on non-recurring items are provided in the Note “Significant non-recurring events and transactions” of the Separate Financial Statements at December 31, 2021 of TIM S.p.A. in addition to the information given in the chapter on “Non-recurring events” of this report on operations.

Organic EBIT, net of the non-recurring items, is calculated as follows:

(million euros)	2021	2020	Changes	
			absolute	%
EBIT	**(4,522)**	**1,576**	**(6,098)**	
Non-recurring expenses (Income)	5,254	311	4,943	
ORGANIC EBIT - excluding Non-recurring items	**732**	**1,887**	**(1,155)**	**(61.2)**

Income (expenses) from investments

This item, amounting to 834 million euros (551 million euros in 2020), is broken down as follows:

(million euros)	2021	2020	Changes
Dividends	837	331	506
Other income and gains on disposals of investments	9	227	(218)
Other income from investments	10	—	10
Losses on disposals of investments	—	—	—
Impairment losses on financial assets	(7)	(7)	—
Sundry expenses from investments	(15)	—	(15)
Total	**834**	**551**	**283**

In particular, we report:

- dividends mainly related to the subsidiaries Telecom Italia Sparkle (400 million euros) and Telecom Italia Finance (436 million euros). In 2020 dividends mainly referred to the subsidiary Telecom Italia Finance (75 million euros) and the associated company INWIT S.p.A. (256 million euros);
- net capital gains (9 million euros) refer to the sale of 37.5% of the investment in the subsidiary FiberCop to the KKR fund (gross capital gain of 17 million euros, net of accessory charges for 8 million euros). In 2020, these referred to the dilution of TIM’s investment in INWIT S.p.A.'s capital from 60% to 37.5%, following the merger of INWIT with Vodafone Towers;
- other income from investments refers to the reversal to extraordinary income of several provisions relating to investments;
- impairment losses referred mainly to the impairment of investment in the subsidiary Telecom Italia Ventures. In 2020 impairment losses referred mainly to the impairment of investment in the subsidiary Olivetti;
- sundry expenses from investments refer to the measurement of the economic value of the rights envisaged in the Transaction Agreement in the favor of Teemo Bidco Sarl, as minority shareholder, under the scope of the FiberCop transaction.

Finance income (expenses), net

Finance income (expenses) show a net expense of 908 million euros (negative for 961 million euros in 2020), which breaks down as follows:

(million euros)	2021	2020	Changes
Finance income	1,076	1,012	64
Finance expenses	(1,984)	(1,973)	(11)
Total net financial income (expenses)	**(908)**	**(961)**	**53**

The positive change mainly derives from the lower finance expenses connected to the reduction in interest rate levels and income from loans granted to FiberCop and Noovle, partly attenuated by the negative effects of changes in certain currency and accounting non-monetary items relating to the measurement of derivative instruments at fair value.

Income tax expense

In 2021, tax expense was recorded for 3,718 million euros (income for 5,995 million euros in 2020); tax expenses mainly relate to the partial writing off of the deferred tax assets entered in 2020 in exchange for the tax recognition of higher values booked in accordance with Decree Law 104/2020 art. 110, subsections 8 and 8 bis; this write-off is due to the extension to 50 years of the period of tax asset resorption, introduced by art. 160 of the 2022 Budget Law (Law 234/2021) and the changed assessment of the time frame for recoverability of deferred tax assets of TIM S.p.A.
Further details are provided in the Note "Income tax expense (current and deferred)" of the Separate Financial Statements at December 31, 2021 of TIM S.p.A.
The item also benefits from the positive tax effect of the proceed from consolidation of 100 million euros for tax losses compensated by the taxable income of other companies in the tax consolidation.

Profit (loss) for the year

The **profit for the year 2021** was negative in the amount of 8,314 million euros (positive in the amount of 7,161 million euros in 2020) and was negatively affected by non-recurring net charges of 8,761 million euros.
On comparable basis, profit for the year 2021 would have amounted to around 450 million euros, a drop of approximately 0.9 billion euros over 2020.
Further details on non-recurring items are provided in the Note "Non-recurring events and transactions" of the Separate Financial Statements at December 31, 2021 of TIM S.p.A..

Financial Position and Cash Flows Performance

Financial position structure

(million euros)	12/31/2021	12/31/2020	Changes
Assets			
Non-current assets	49,623	61,804	(12,181)
Goodwill	*12,961*	*23,051*	*(10,090)*
Intangible assets with a finite useful life	*5,278*	*5,500*	*(222)*
Tangible assets	*7,223*	*10,335*	*(3,112)*
Rights of use assets	*3,320*	*4,096*	*(776)*
Other non-current assets	*17,477*	*11,485*	*5,992*
Deferred tax assets	*3,364*	*7,337*	*(3,973)*
Current assets	7,852	5,567	2,285
Inventories, trade and miscellaneous receivables and other current assets	*4,096*	*3,608*	*488*
Current income tax receivables	*43*	*39*	*4*
Current financial assets	*3,713*	*1,920*	*1,793*
	57,475	**67,371**	(9,896)
Liabilities			
Equity	16,564	25,008	(8,444)
Non-current liabilities	27,090	32,717	(5,627)
Current liabilities	13,821	9,646	4,175
	57,475	**67,371**	(9,896)

Non-current assets

- **Goodwill**: drops by 10,090 million euros on December 31, 2020, following the impacts consequent to the conferrals of the Green BU to Noovle (1,300 million euros), of the secondary network to FiberCop (4,670 million euros) and the mentioned impairment loss on goodwill attributed to domestic businesses (4,120 million euros);
- **Intangible assets with a finite useful life**: these fell by 222 million euros, from 5,500 million euros at the end of 2020 to 5,278 million euros at December 31, 2021, representing the balance of the following items:
  - conferral to Noovle (-181 million euros);
  - capex (+1,055 million euros);
  - amortization charge for the year (-1,112 million euros);
  - disposals, reclassifications and other changes (+16 million euros).
- **Tangible assets**: decreased by 3,112 million euros, representing the sum of the following:
  - conferral to Noovle (-362 million euros);
  - conferral to FiberCop (-2,446 million euros);
  - capex (+1,167 million euros);
  - depreciation charge for the year (-1,432 million euros);
  - disposals, reclassifications and other changes (-39 million euros); they include 7 million euros in other tangible fixed assets deriving from the acquisition of BT Italia business units.
- **Right of use assets**: decreased by 776 euros, representing the sum of the following:
  - conferral to Noovle (-91 million euros);
  - conferral to FiberCop (+27 million euros, of which -130 million euros following the attribution to the branch of rights of use and +157 million euros for the start since the date of the conferral of TIM IRU liabilities on portions of secondary network to FiberCop);
  - investments and increases in lease contracts (+325 million euros);
  - amortization charge for the year (-452 million euros);
  - disposals, reclassifications and other changes (-585 million euros); they include the impacts associated with the derecognition of the rights of use connected with the previous Pay per Use contract stipulated with Flash Fiber (538 million euros) following the effectiveness of the new Master Service Agreement (MSA) stipulated between TIM S.p.A. and FiberCop S.p.A., consequent to the conferral and merger of FiberCop with Flash Fiber.
- **Deferred tax assets**: decreased by 3,973 million euros mainly following the write-off of 50% of the deferred tax assets entered in 2020 for 6,569 million euros, following the tax recognition of higher values booked in accordance with Decree Law 104/2020, Art. 110, subsections 8 and 8.

Equity

Equity amounted to 16,564 million euros, down by 8,444 million euros compared to December 31, 2020 (25,008 million euros). The changes in equity over 2021 and 2020 are detailed in the following table:

(million euros)	12/31/2021	12/31/2020
At the beginning of the year	**25,008**	**18,174**
Profit (loss) for the year	(8,314)	7,161
Dividends approved	(319)	(317)
Merger of HR Services S.r.l. into TIM S.p.A.	—	12
Broad-Based Share Ownership Plan 2020	—	44
Issue of equity instruments and other changes	(72)	5
Movements in the reserve for financial assets measured at fair value through other comprehensive income and derivative hedging instruments	272	(75)
Movements in the reserve for remeasurements of employee defined benefit plans (IAS 19)	(11)	4
At the end of the year	**16,564**	**25,008**

Cash flows

Change in net financial debt

(million euros)	2021	2020	Changes
EBITDA	2,637	5,180	(2,543)
Capital expenditures on an accrual basis	(2,294)	(2,485)	191
Change in net operating working capital:	(136)	591	(727)
Change in inventories	(21)	12	(33)
Change in trade receivables and other net receivables	(261)	217	(478)
Change in trade payables	666	287	379
Change in payables for mobile telephone licenses	(55)	(110)	55
Other changes in operating receivables/payables	(465)	185	(650)
Change in provisions for employee benefits	(83)	(611)	528
Change in operating provisions and Other changes	336	(122)	458
Net operating free cash flow	**460**	**2,553**	**(2,093)**
% of Revenues	*3.7*	*21.2*	*(17.5)*
Sale of investments and other disposals flow	1,812	1,822	(10)
- of which sale of 37.5% FiberCop	*1,759*	—	*1,759*
Share capital increases/reimbursements	—	8	(8)
Financial investments	(130)	(101)	(29)
Dividends flow	462	14	448
Increases in lease contracts	(253)	(889)	636
impact on debt for Noovle conferral	858	—	858
Impact on debt for FiberCop conferral	2,406	—	2,406
Finance expenses, income taxes and other net non-operating requirements flow	(228)	552	(780)
Reduction /(Increase) in net financial debt carrying amount	**5,387**	**3,959**	**1,428**

Equity Free Cash Flow

(million euros)	2021	2020	Changes
Reduction /(Increase) in net financial debt carrying amount	**5,387**	**3,959**	**1,428**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	*(216)*	*(2)*	*(214)*
Reduction/(Increase) in adjusted net financial debt	**5,171**	**3,957**	**1,214**
Impact for finance leases (new lease operations and/or renewals and/or extensions (-)/any terminations/early extinguishing of leases (+))	171	432	(261)
Payment of TLC licenses and for the use of frequencies	295	110	185
Financial impact of acquisitions and/or disposals of investments	(5,405)	(1,403)	(4,002)
Dividend payment and Change in Equity	317	(1,036)	1,353
Equity Free Cash Flow	**549**	**2,060**	**(1,511)**

The reduction in net operating free cash flow in 2021 as compared with 2020 (2,093 million euros) is attributed to the reduction recorded by the EBITDA (-2,543 million euros), the change in working capital (-727 million euros, above all due to the other changes in operating receivables/payables, amounting to -650 million euros), partially offset by the lesser need for investments and the change in provisions for employee benefits (+528 million euros) and the operating provisions and other changes (+458 million euros).

In addition to what has already been described with reference to EBITDA, the change in net financial debt in 2021 was particularly impacted by the following:

Capex flow

Capex totals 2,294 million euros (2,485 million euros in 2020), down 191 million euros, mainly determined by lesser investments in tangible assets (-301 million euros), partly offset by greater investments in intangible assets (+96 million euros) and rights of use assets (+14 million euros).

Sale of investments and other disposals flow

This is positive for 1,812 million euros and mainly refers to the sale, as described previously, of 37.5% of FiberCop to the indirect subsidiary of KKR Global Infrastructure Investors III L.P. and the sale of tangible and intangible fixed assets. In 2020, this was positive for 1,822 million euros and referred for 1,816 million euros to the collection in connection with the transactions involving INWIT during the year.

Financial investments flow

This amounted to 130 million euros and referred primarily to investment account payments to cover subscriptions of new share capital issued by the subsidiaries Olivetti (10 million euros), Telecom Italia Ventures (33 million euros), FiberCop (63 million euros) and in the associate TIM Fin (24 million euros). In 2020, this amounted to 101 million euros and referred primarily to investment account payments to cover subscriptions of new share capital issued by the subsidiaries Olivetti (25 million euros), Flash Fiber (48 million euros), TIM Tank (6 million euros), Telsy (5 million euros) and the purchase of the investment in the subsidiary Noovle Srl and Noovle S.p.A. (13 million euros) and in the associate TIMFin (3 million euros).

Increases in lease contracts

This item, amounting to 253 million euros (889 million euros in 2020), is broken down as follows: Increases in finance lease contracts include the higher value of user rights entered following new lease contracts payables, increase of lease payments and renegotiations of existing contracts.

Impact for the Noovle S.p.A. conferral

The item comes to 858 million euros and relates to the positive impact on TIM debt following the conferral of the Green branch to Noovle S.p.A.; it includes TIM financial receivables in respect of Noovle for 684 million euros.

Impact for the FiberCop S.p.A. conferral

The item comes to 2,406 million euros and relates to the positive impact on TIM debt following the conferral of the branch relative to the access network to FiberCop S.p.A.; it includes TIM financial receivables in respect of FiberCop for 2,500 million euros.

Share capital increases/reimbursements, including incidental costs

There are none in 2021.
In 2020, they totaled 8 million euros and derived from the issue of ordinary shares to service the 2020 Broad-Based Share Ownership Plan subscribed by employees of the TIM Group companies and employees of TIM S.p.A., for the shares subscribed without using severance indemnity (bank transfer or loan).

Finance expenses, income taxes and other net non-operating requirements flow

Finance expenses, income taxes and other net non-operating requirements flow mainly includes the payment of income taxes, net finance expenses, and the change in non-operating receivables and payables.

Sales of receivables to factoring companies

Sales of trade receivables to factoring companies completed during 2021 resulted in a positive effect on the net financial debt at December 31, 2021 amounting to 1,487 million euros (1,919 million euros at December 31, 2020).

Net financial debt

Net financial debt is composed as follows:

(million euros)	12/31/2021 (a)	12/31/2020 (b)	Changes (a-b)
Non-current financial liabilities			
Bonds	12,506	14,506	(2,000)
Amounts due to banks, other financial payables and liabilities	9,371	9,934	(563)
Finance lease liabilities	2,743	3,506	(763)
	24,620	**27,946**	**(3,326)**
Current financial liabilities (1)			
Bonds	3,384	864	2,520
Amounts due to banks, other financial payables and liabilities	1,661	2,478	(817)
Finance lease liabilities	434	463	(29)
	5,479	**3,805**	**1,674**
Total Gross financial debt	**30,099**	**31,751**	**(1,652)**
Non-current financial assets			
Non-current financial receivables arising from lease contracts	(11)	(17)	6
Financial receivables and other financial assets	(4,438)	(2,490)	(1,948)
	(4,449)	**(2,507)**	**(1,942)**
Current financial assets			
Securities other than investments	—	—	—
Current financial receivables arising from lease contracts	(39)	(44)	5
Financial receivables and other financial assets	(116)	(110)	(6)
Cash and cash equivalents	(3,558)	(1,766)	(1,792)
	(3,713)	**(1,920)**	**(1,793)**
Total financial assets	**(8,162)**	**(4,427)**	**(3,735)**
Net financial debt carrying amount	**21,937**	**27,324**	**(5,387)**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	(1,325)	(1,541)	216
Adjusted net financial debt	**20,612**	**25,783**	**(5,171)**
Breakdown as follows:			
Total adjusted gross financial debt	**27,753**	**28,825**	**(1,072)**
Total adjusted financial assets	**(7,141)**	**(3,042)**	**(4,099)**
(1) of which current portion of medium/long-term debt:			
Bonds	*3,384*	*864*	*2,520*
Amounts due to banks, other financial payables and liabilities	*1,045*	*1,356*	*(311)*
Finance lease liabilities	*432*	*456*	*(24)*

The non-current portion of gross financial debt amounted to 24,620 million euros (27,946 million euros at the end of 2020) and represented 82% of total gross financial debt.

In line with the Group's objectives in terms of debt composition and in accordance with the Guidelines adopted for the "Management and control of financial risk", TIM S.p.A., in securing both third-party and intercompany loans, uses IRS and CCIRS derivative financial instruments to hedge its liabilities.

Derivative financial instruments are designated as fair value hedges for managing exchange rate risk on financial instruments denominated in currencies other than euro and for managing interest rate risk on fixed-rate loans. Derivative financial instruments are designated as cash flow hedges when the objective is to fix the exchange rate and interest rate of future variable contractual flows.

Adjusted net financial debt amounted to 20,612 million euros at December 31, 2021, **a decrease of 5,171 million euros compared to December 31, 2020** (25,783 million euros). The considerable reduction in debt, as well as the generation of operating cash, has been guaranteed by the corporate conferral of portions of debt to the newcos FiberCop S.p.A. and Noovle S.p.A. for a total of 3,581 million euros, by the conclusion of the purchase by KKR Infrastructure of 37.5% of FiberCop from TIM for an equivalent value of 1,759 million euros and by the collection of dividends totaling 780 million euros (of which 379 million from Telecom Italia Finance S.A. and 400 million from Telecom Italia Sparkle S.p.A.). The reduction of debt was helped by the payments of dividends (318 million euros), the sanction (116 million euros) connected with the Antitrust Case A514 (alleged abuse of a dominant market position on the wholesale access services market and for retail services of the BB and UBB fixed network), substitute tax on the aligned value of assets (231 million euros), as well as the extension of the rights of use of frequencies on the 2100 MHz bandwidth (240 million euros) and the installment on the 5G license (55 million euros).
For a better understanding of the information, the table below shows the various ways by which the Net Financial Debt can be shown:

(million euros)	12/31/2021	12/31/2020	Changes
Net financial debt carrying amount	**21,937**	**27,324**	**(5,387)**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	*(1,325)*	*(1,541)*	*216*
Adjusted net financial debt	**20,612**	**25,783**	**(5,171)**
Leasing	*(3,127)*	*(3,908)*	*781*
Adjusted net financial debt - After Lease	**17,485**	**21,875**	**(4,390)**

Net financial debt carrying amount amounted to 21,937 million euros at December 31, 2021, a decrease of 5,387 million euros compared to December 31, 2020 (27,324 million euros). Reversal of fair value measurement of derivatives and related financial liabilities/assets recorded an annual change of 216 million euros, the impact is attributable to the rise in Euro interest rates, the positive impact of which on the value of derivatives is only partly offset by the change in interest rates in American dollars. This valuation is adjusted in the Financial Debt carrying amount as it has no monetary effect.

Adjusted Net Financial Debt – After Lease (net of the impact of all leases), **which is a parameter adopted by main European peers**, was equal to 17,485 million euros at December 31, 2021, down by 4,390 million euros compared to December 31, 2020 (21,875 million euros).

Gross financial debt

Bonds

Bonds at December 31, 2021 totaled 15,890 million euros (15,370 million euros at December 31, 2020). Their nominal repayment amount was 15,538 million euros, an increase of 564 million euros compared to December 31, 2020 (14,974 million euros).

The change in bonds during 2021 was as follows:

(millions of original currency)	Currency	Amount	Issue date
New issues			
Telecom Italia S.p.A. 1,000 million euros 1.625%	Euro	1,000	1/18/2021

On January 18, 2021, TIM issued its first 8-year Sustainability Bond for an amount of 1 billion euros, coupon 1.625%.

(millions of original currency)	Currency	Amount	Repayment date
Repayments			
Telecom Italia S.p.A. 564 million euros 4.500% [(1)]	Euro	564	44221

(1) Net of buy-backs totaling 281 million euros made by the company in 2015.

With reference to Telecom Italia S.p.A. 2002–2022 bonds, reserved for subscription by employees of the Group, the nominal amount at December 31, 2021 was 214 million euros, down by 3 million euros compared to December 31, 2020 (217 million euros).

Note that on December 31, 2021, the "Telecom Italia S.p.A. 2002-2022 Floating Rate bonds, Open Special series, reserved for subscription by employees of the Telecom Italia Group, in service or retired" bond was closed and the bonds fully repaid starting January 1, 2022, in accordance with the relevant Regulation.

Revolving Credit Facility and Term Loan

The following table shows committed credit lines available at December 31, 2021:

(billion euros)	12/31/2021		12/31/2020	
	Agreed	Drawn down	Agreed	Drawn down
Sustainability-linked RCF - maturing May 2026	4.0	—	—	—
Revolving Credit Facility – maturing January 2023	—	—	5.0	—
Bridge to Bond Facility – maturing May 2021	—	—	1.7	—
Total	**4.0**	**—**	**6.7**	—

At December 31, 2021, TIM had bilateral Term Loans for 850 million euros with various banking counterparties and an overdraft facility for 200 million euros, drawn down for the full amount.

On January 19, 2021, TIM entirely canceled the credit line for 1.7 billion euros, which was not used, stipulated on May 18, 2020 as bridge to bond for subsequent issues on the bond market and an initial maturity of 12 months with an option of extension for another 12 months.

On May 13, 2021, TIM extended the Revolving Credit Facility by 5 years, reducing the amount to 4 billion euros and making it the Group's first ever ESG-linked credit facility.

Maturities of financial liabilities

The average maturity of non-current financial liabilities (including the current portion of medium/long-term financial liabilities due within 12 months) was 5.90 years.

Details of the maturities of financial liabilities in terms of expected nominal repayment amounts, as contractually agreed, are provided in the Note “Non-current and current financial liabilities” of the Separate Financial Statements of TIM S.p.A. at December 31, 2021.

Financial assets and liquidity margin

Financial assets totaled 8,162 million euros (4,427 million euros at December 31, 2020), of which 2,713 million euros relating to financial receivables from Group companies.

Of that total, 3,713 million euros (1,920 million euros at December 31, 2020) was classified as current financial assets.

The available liquidity margin of TIM S.p.A. amounted to 7,558 million euros, equal to the sum of:

- “Cash and cash equivalents” and “Current securities other than investments” for a total of 3,558 million euros (1,766 million euros at December 31, 2020);
- Sustainability-linked Revolving Credit Facility amounting to 4,000 million euros, totally available.

This margin is amply sufficient to cover the financial liabilities due.

In particular:

Cash and cash equivalents amounted to 3,558 million euros (1,766 million euros at December 31, 2020). The different technical forms of investing available cash can be analyzed as follows:

- Maturities: investments have a maximum maturity of three months;
- Counterparty risk: investments are made with leading banking and financial institutions with high-credit-quality;
- Country risk: deposits have been made mainly in major European financial markets.

TABLES OF DETAIL – TIM S.p.A.

Separate Income Statements

(million euros)	2021 (a)	2020 (b)	Changes (a-b) absolute	 %
Revenues	**12,397**	**12,030**	**367**	**3.1**
Other income	322	189	133	70.4
Total operating revenues and other income	**12,719**	**12,219**	**500**	**4.1**
Acquisition of goods and services	(6,759)	(4,611)	(2,148)	(46.6)
Employee benefits expenses	(2,453)	(2,193)	(260)	(11.9)
Other operating expenses	(1,179)	(605)	(574)	(94.9)
Change in inventories	21	(11)	32	—
Internally generated assets	288	381	(93)	(24.4)
Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)	**2,637**	**5,180**	**(2,543)**	**(49.1)**
Depreciation and amortization	(2,996)	(3,582)	586	16.4
Gains/(losses) on disposals of non-current assets	(43)	(14)	(29)	—
Impairment reversals (losses) on non-current assets	(4,120)	(8)	(4,112)	—
Operating profit (loss) (EBIT)	**(4,522)**	**1,576**	**(6,098)**	**—**
Income (expenses) from investments	834	551	283	51.4
Finance income	1,076	1,012	64	6.3
Finance expenses	(1,984)	(1,973)	(11)	(0.6)
Profit (loss) before tax	**(4,596)**	**1,166**	**(5,762)**	**—**
Income tax expense	(3,718)	5,995	(9,713)	—
Profit (loss) for the year	**(8,314)**	**7,161**	**(15,475)**	**—**

Statements of Comprehensive Income

In accordance with IAS 1 (Presentation of Financial Statements), the following Statements of Comprehensive Income include the Profit (loss) for the year as shown in the Separate Income Statements and all non-owner changes in equity.

(million euros)		2021	2020
Profit (loss) for the year	**(a)**	**(8,314)**	**7,161**
Other components of the Statements of Comprehensive Income			
Other components that will not be reclassified subsequently to Separate Income Statements			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		7	(4)
Income tax effect		—	—
	(b)	**7**	**(4)**
Remeasurements of employee defined benefit plans (IAS19):			
Actuarial gains (losses)		(14)	6
Income tax effect		3	(2)
	(c)	**(11)**	**4**
Share of other comprehensive income (losses) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Income tax effect		—	—
	(d)	**—**	**—**
Total other components that will not be reclassified subsequently to Separate Income Statements	**(e=b+c+d)**	**(4)**	**—**
Other components that will be reclassified subsequently to Separate Income Statements			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		(5)	4
Loss (profit) transferred to the Separate Income Statements		—	—
Income tax effect		1	(1)
	(f)	**(4)**	**3**
Hedging instruments:			
Profit (loss) from fair value adjustments		538	(409)
Loss (profit) transferred to the Separate Income Statements		(185)	312
Income tax effect		(84)	23
	(g)	**269**	**(74)**
Share of other comprehensive income (losses) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Loss (profit) transferred to the Separate Income Statements		—	—
Income tax effect		—	—
	(h)	**—**	**—**
Total other components that will be reclassified subsequently to Separate Income Statements	**(i= f+g+h)**	**265**	**(71)**
Total other components of the Statements of Comprehensive Income	**(k= e+i)**	**261**	**(71)**
Total comprehensive income (loss) for the year	**(a+k)**	**(8,053)**	**7,090**

Statements of Financial Position

(million euros)		12/31/2021 (a)	12/31/2020 (b)	Changes (a-b)
Assets				
Non-current assets				
Intangible assets				
Goodwill		12,961	23,051	(10,090)
Intangible assets with a finite useful life		5,278	5,500	(222)
		18,239	**28,551**	**(10,312)**
Tangible assets				
Property, plant and equipment owned		**7,223**	**10,335**	**(3,112)**
Rights of use assets		**3,320**	**4,096**	**(776)**
Other non-current assets				
Investments		11,054	7,245	3,809
Non-current financial receivables arising from lease contracts		11	17	(6)
Other non-current financial assets		4,438	2,490	1,948
Miscellaneous receivables and other non-current assets		1,974	1,733	241
Deferred tax assets		3,364	7,337	(3,973)
		20,841	**18,822**	**2,019**
Total Non-current assets	**(a)**	**49,623**	**61,804**	**(12,181)**
Current assets				
Inventories		165	144	21
Trade and miscellaneous receivables and other current assets		3,931	3,464	467
Current income tax receivables		43	39	4
Current financial assets				
Current financial receivables arising from lease contracts		39	44	(5)
Securities other than investments, other financial receivables and other current financial assets		116	110	6
Cash and cash equivalents		3,558	1,766	1,792
		3,713	**1,920**	**1,793**
Total Current assets	**(b)**	**7,852**	**5,567**	**2,285**
Total Assets	**(a+b)**	**57,475**	**67,371**	**(9,896)**

(million euros)		12/31/2021 (a)	12/31/2020 (b)	Changes (a-b)
Equity and liabilities				
Equity				
Capital issued		11,677	11,677	—
less: Treasury shares		(63)	(19)	(44)
Share capital		**11,614**	**11,658**	**(44)**
Additional paid-in capital		**2,133**	**2,133**	**—**
Other reserves and retained earnings (accumulated losses), including profit (loss) for the year		**2,817**	**11,217**	**(8,400)**
Total Equity	**(c)**	**16,564**	**25,008**	**(8,444)**
Non-current liabilities				
Non-current financial liabilities for financing contracts and others		21,877	24,440	(2,563)
Non-current financial liabilities for lease contracts		2,743	3,506	(763)
Employee benefits		641	676	(35)
Deferred tax liabilities		—	—	—
Provisions		633	618	15
Miscellaneous payables and other non-current liabilities		1,196	3,477	(2,281)
Total Non-current liabilities	**(d)**	**27,090**	**32,717**	**(5,627)**
Current liabilities				
Current financial liabilities for financing contracts and others		5,045	3,342	1,703
Current financial liabilities for lease contracts		434	463	(29)
Trade and miscellaneous payables and other current liabilities		8,111	5,610	2,501
Current income tax payables		231	231	—
Total Current Liabilities	**(e)**	**13,821**	**9,646**	**4,175**
Total Liabilities	**(f=d+e)**	**40,911**	**42,363**	**(1,452)**
Total Equity and Liabilities	**(c+f)**	**57,475**	**67,371**	**(9,896)**

Statements of Cash Flows

(million euros)		2021	2020
Cash flows from operating activities:			
Profit (loss) for the year		(8,314)	7,161
Adjustments for:			
Depreciation and amortization		2,996	3,582
Impairment losses (reversals) on non-current assets (including investments)		4,125	43
Net change in deferred tax assets and liabilities		3,843	(6,433)
Losses (gains) realized on disposals of non-current assets (including investments)		35	(212)
Change in provisions for employee benefits		(83)	(611)
Change in inventories		(21)	12
Change in trade receivables and other net receivables		(261)	217
Change in trade payables		518	(23)
Net change in income tax receivables/payables		(236)	694
Net change in miscellaneous receivables/payables and other assets/liabilities		(227)	56
Cash flows from (used in) operating activities	**(a)**	**2,375**	**4,486**
Cash flows from investing activities:			
Purchases of intangible, tangible and rights of use assets on a cash basis		(2,201)	(2,285)
Contributions for plants received		3	24
Change in cash arising from corporate actions		4	51
Acquisitions/disposals of other investments		(130)	(101)
Change in financial receivables and other financial assets (excluding hedging and non-hedging derivatives under financial assets)		1,153	(62)
Proceeds received from the sale of investments in subsidiaries		—	—
Proceeds from sale/repayments of intangible, tangible, rights of use assets and other non-current assets		53	1,822
Cash flows from (used in) investing activities	**(b)**	**(1,118)**	**(551)**
Cash flows from financing activities:			
Change in current financial liabilities and other		(182)	(732)
Proceeds from non-current financial liabilities (including current portion)		2,100	1,022
Repayments of non-current financial liabilities (including current portion)		(2,600)	(2,809)
Changes in hedging and non-hedging derivatives		103	93
Proceeds for increases/repayment of capital		—	8
Dividends paid		(318)	(317)
Changes in ownership interests in consolidated subsidiaries		1,759	—
Cash flows from (used in) financing activities	**(c)**	**862**	**(2,735)**
Aggregate cash flows	**(d=a+b+c)**	**2,119**	**1,200**
Net cash and cash equivalents at beginning of the year	**(e)**	**1,245**	**45**
Net cash and cash equivalents at end of the year	**(f=d+e)**	**3,364**	**1,245**

Purchases of intangible, tangible and rights of use assets

(million euros)	2021	2020
Purchase of intangible assets	(1,055)	(959)
Purchase of tangible assets	(1,167)	(1,468)
Purchase of rights of use assets	(325)	(947)
Total purchases of intangible, tangible and rights of use assets on an accrual basis	**(2,547)**	**(3,374)**
Change in payables arising from purchases of intangible, tangible and rights of use assets	346	1,089
Total purchase of intangible, tangible and rights of use assets on a cash basis	**(2,201)**	**(2,285)**

Additional Cash Flow Information

(million euros)	2021	2020
Income taxes (paid) received	(206)	249
Interest expense paid	(1,296)	(1,389)
Interest income received	504	465
Dividends received	780	331

Analysis of Net Cash and Cash Equivalents

(million euros)	2021	2020
Net cash and cash equivalents at the start of the year:		
Cash and cash equivalents	1,765	829
Bank overdrafts repayable on demand	(520)	(784)
	1,245	**45**
Net cash and cash equivalents at the end of the year:		
Cash and cash equivalents	3,558	1,765
Bank overdrafts repayable on demand	(194)	(520)
	3,364	**1,245**

The additional disclosures required by IAS 7 are provided in the Note “Net Financial Debt” in the Separate Financial Statements of TIM S.p.A. as at December 31, 2021.

AFTER LEASE INDICATORS - TIM S.p.A.

The Company, in addition to the conventional financial performance measures established by the IFRS, uses certain alternative performance measures in order to present a better understanding of the trend of operations and financial condition. In particular, following the adoption of IFRS 16, TIM presents the following additional alternative performance indicators:

EBITDA ADJUSTED AFTER LEASE TIM S.p.A.

(million euros)	2021	2020	Changes	
			absolute	%
ORGANIC EBITDA - excluding Non-recurring items	3,771	5,491	(1,720)	(31.3)
Lease payments	(503)	(599)	96	(16.0)
EBITDA adjusted After Lease (EBITDA-AL)	3,268	4,892	(1,624)	(33.2)

ADJUSTED NET FINANCIAL DEBT AFTER LEASE TIM S.p.A.

(million euros)	12/31/2021	12/31/2020	Changes
Adjusted net financial debt	20,612	25,783	(5,171)
Leasing	(3,127)	(3,908)	781
Adjusted net financial debt - After Lease	17,485	21,875	(4,390)

EQUITY FREE CASH FLOW AFTER LEASE TIM S.p.A.

(million euros)	2021	2020	Changes
EQUITY FREE CASH FLOW	549	2,060	(1,511)
Leasing	(388)	(558)	170
EQUITY FREE CASH FLOW AFTER LEASE	161	1,502	(1,341)

RECONCILIATION OF CONSOLIDATED EQUITY

(million euros)	Profit (loss) for the year		Equity at 12/31	
	2021	2020	2021	2020
Equity and Profit (Loss) for the year of TIM S.p.A.	**(8,314)**	**7,161**	**16,564**	**25,008**
Equity and Profit (Loss) for the year of consolidated companies, net of the share attributable to Non-controlling interest	721	391	18,842	13,461
Consolidation adjustments on the Equity and Profit (Loss) for the year attributable to Owners of the Parent:				
elimination of carrying amount of consolidated investments	—	—	(31,760)	(22,158)
impairment losses of consolidated companies included in the results of parent companies	3	9	9,544	9,515
elimination of goodwill recognized in Parent financial statements	—	—	(12,961)	(23,051)
recognition of positive differences arising from purchase of investments, of which:				
- goodwill	—	—	16,562	22,749
- allocation of the purchase price to the net assets acquired and liabilities assumed in business combinations	(1)	1	(1)	2
measurement of hedging derivatives at Group level	(28)	(22)	766	901
effect of elimination of carrying amount of Parent's shares held by TIM (formerly Telecom Italia Finance)	—	—	(78)	(48)
intra-group dividends	(1,096)	(558)	(44)	(256)
change in share of losses (profits) from sale of investments	—	220	(23)	246
other adjustments	63	22	3	(154)
Equity and Profit (Loss) for the year attributable to Owners of the Parent	**(8,652)**	**7,224**	**17,414**	**26,215**
Equity and Profit (Loss) for the year attributable to Non-controlling interest	252	128	4,625	2,625
Equity and Profit (Loss) for the year in the Consolidated Financial Statements	**(8,400)**	**7,352**	**22,039**	**28,840**

CORPORATE BOARDS

Board of Directors

The Ordinary Shareholders' meeting of TIM, held on March 31, 2021, appointed a new Board of 15 Directors and for a three-year term of office (up to the approval of the financial statements at December 31, 2023). At its meeting on April 1, 2021, the Board of Directors confirmed Salvatore Rossi as its Chairman, and Luigi Gubitosi as Chief Executive Officer of the Company.

During the meeting held on November 26, 2021, Luigi Gubitosi returned the delegations of Chief Executive Officer and the appointment of General Manager. The Board of Directors has therefore decided to reorganize the Company governance, assigning Chairman Rossi the responsibilities and delegations relative to the Partnership & Alliances, Institutional Communications, Sustainability Projects & Sponsorship and Public Affairs Departments and responsibility for managing TIM's strategic assets and other assets for the national security and defense system and appointing Pietro Labriola as the Company's General Manager, assigning him all powers necessary for performing actions pertinent to the activity of the company. During the same meeting, the Board of Directors appointed Paola Sapienza as Lead Independent Director.

Thereafter, on December 17, 2021, Luigi Gubitosi resigned from TIM's Board of Directors.

At December 31, 2021, the TIM Board of Directors had the following members:

Chairman	Salvatore Rossi
Directors	Paolo Boccardelli (independent)
	Paola Bonomo (independent)
	Franck Cadoret
	Paola Camagni (independent)
	Maurizio Carli (independent)
	Luca De Meo (independent)
	Cristiana Falcone (independent)
	Federico Ferro Luzzi (independent)
	Giovanni Gorno Tempini
	Marella Moretti (independent)
	Ilaria Romagnoli (independent)
	Arnaud Roy de Puyfontaine
	Paola Sapienza (Lead Independent Director)
Secretary to the Board	Agostino Nuzzolo

Finally, during the meeting of the Board of Directors held on January 21, 2022, Pietro Labriola was co-opted, retaining the office of General Manager and being appointed as Chief Executive Officer, conferring on him all powers, including those previously assigned to the Chairman Mr Rossi.

The composition of the Company's Board of Directors is therefore:

Chairman	Salvatore Rossi
Chief Executive Officer and General Manager	Pietro Labriola
Directors	Paolo Boccardelli (independent)
	Paola Bonomo (independent)
	Franck Cadoret
	Paola Camagni (independent)
	Maurizio Carli (independent)
	Luca De Meo (independent)
	Cristiana Falcone (independent)
	Federico Ferro Luzzi (independent)
	Giovanni Gorno Tempini
	Marella Moretti (independent)
	Ilaria Romagnoli (independent)
	Arnaud Roy de Puyfontaine
	Paola Sapienza (Lead Independent Director)
Secretary to the Board	Agostino Nuzzolo

The following board committees were in place at December 31, 2021:

- **Control and Risk Committee**: composed of the Directors: Federico Ferro Luzzi (Chairman), Paolo Boccardelli, Paola Bonomo, Marella Moretti and Ilaria Romagnoli;
- **Nomination and Remuneration Committee**: composed of board members: Paola Bonomo (Chairman), Paola Camagni, Maurizio Carli, Luca De Meo and Paola Sapienza;
- **Related Parties Committee**: composed of the Directors: Paolo Boccardelli (Chairman), Maurizio Carli, Cristiana Falcone, Marella Moretti and Ilaria Romagnoli;
- **Sustainability Committee**: made up of the Chairman of the Board of Directors, Salvatore Rossi and Directors Paola Camagni, Cristiana Falcone, Federico Ferro Luzzi and Paola Sapienza.

Board of Statutory Auditors

The Ordinary Shareholders' Meeting of March 31, 2021 appointed the Company's Board of Statutory Auditors for a term of office that will end with the approval of the 2023 financial statements.

The Board of Statutory Auditors of the Company is now composed as follows:

Chairman	Francesco Fallacara
Standing Auditors	Angelo Rocco Bonissoni
	Francesca di Donato
	Anna Doro
	Massimo Gambini
Alternate Auditors	Ilaria Antonella Belluco
	Laura Fiordelisi
	Franco Maurizio Lagro
	Paolo Prandi

Independent Auditors

The engagement for the independent auditing of the financial statements of TIM S.p.A. for the nine-year period 2019-2027 was awarded to EY S.p.A. by the shareholders' meeting of March 29, 2019.

Manager responsible for preparing the corporate accounting documents

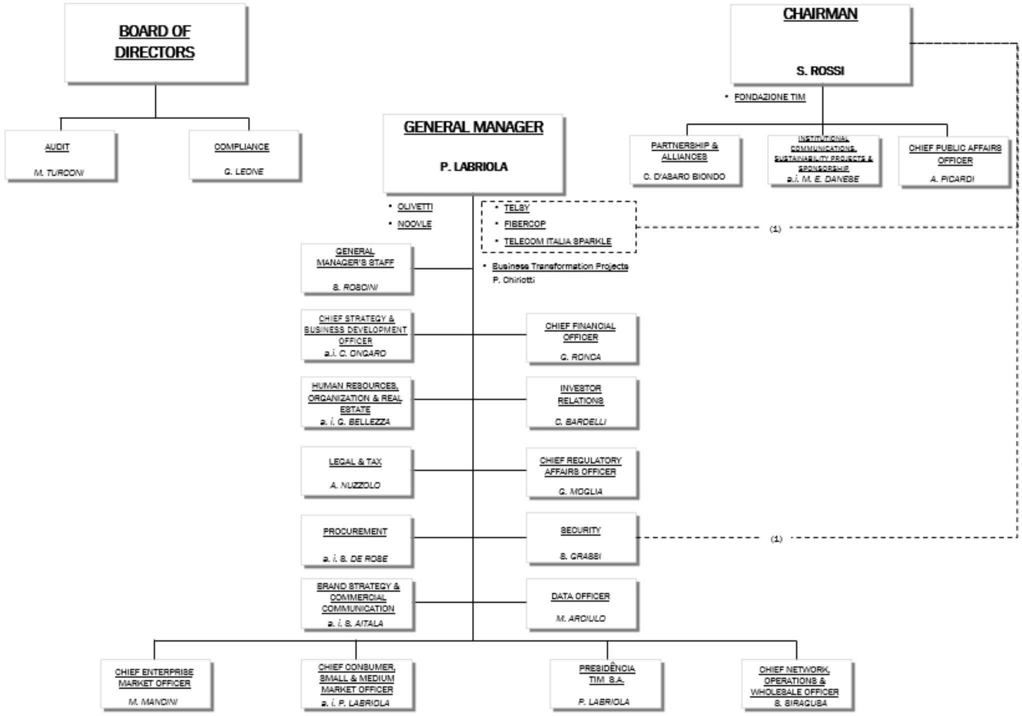
At the meeting of April 1, 2021, the Board of Directors appointed Giovanni Ronca (Head of the Group Administration, Finance and Control Function) as the Manager responsible for preparing the financial reports of TIM S.p.A..

On 1 March 2022, Adrian Calaza joined the TIM Group, taking on the position of Chief Financial Officer.

Adrian Calaza shall also be appointed as Manager responsible for preparing TIM S.p.A. financial reports following the filing of the Company's 2021 draft financial statements.

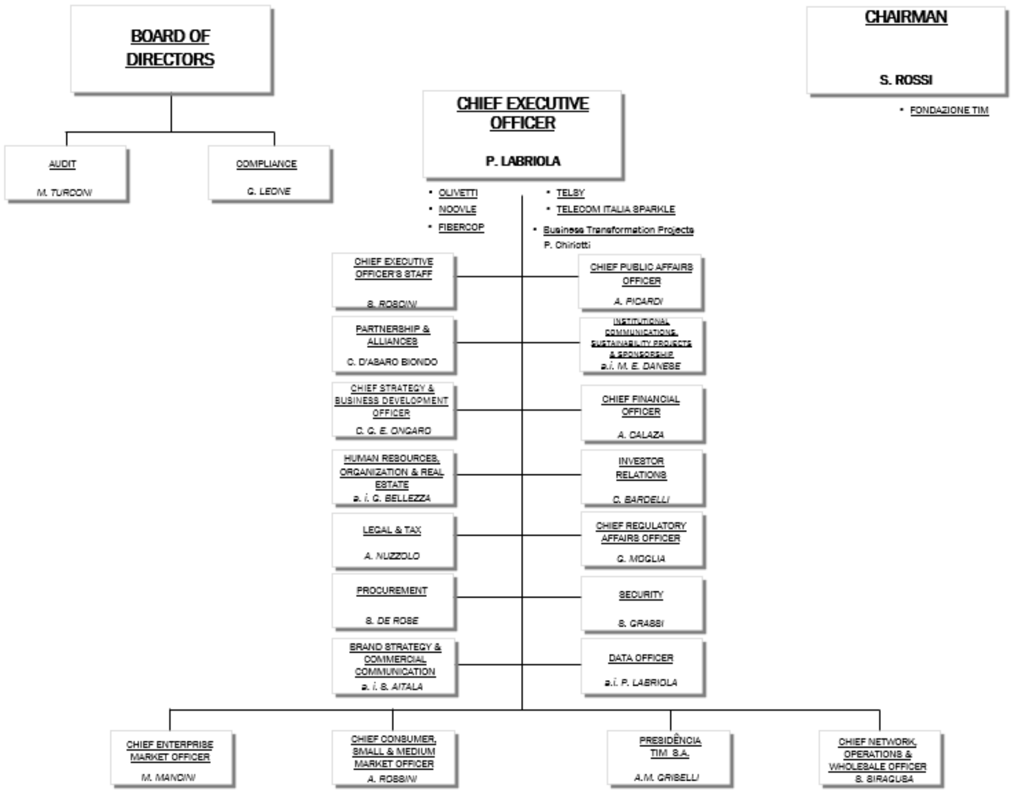
MACRO-ORGANIZATION CHART

Macro-Organization Chart at December 31, 2021



(1) They report to the Chairman in relation to responsibility for managing TIM's strategic assets and activities for the national security and defense system

Macro-Organization Chart updated at March 2, 2022



TIM Group Consolidated Financial Statements

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CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

Assets

(million euros)		notes	12/31/2021	of which with related parties	12/31/2020	of which with related parties
Non-current assets						
Intangible assets						
Goodwill		4)	18,568	—	22,847	—
Intangible assets with a finite useful life		5)	7,147	—	6,740	—
			25,715	—	**29,587**	—
Tangible assets		6)				
Property, plant and equipment owned			**13,311**	—	**13,141**	—
Rights of use assets		7)	**4,847**	*301*	**4,992**	*347*
Other non-current assets						
Investments in associates and joint ventures accounted for using the equity method		8)	2,979	—	2,728	—
Other investments		8)	156	—	54	—
Non-current financial receivables arising from lease contracts		9)	45	*1*	43	—
Other non-current financial assets		9)	2,285	—	2,267	—
Miscellaneous receivables and other non-current assets		10)	2,266	—	2,114	—
Deferred tax assets			3,513	—	7,496	—
			11,244	—	**14,702**	—
Total Non-current assets	**(a)**		**55,117**	—	**62,422**	—
Current assets						
Inventories		12)	282	—	242	—
Trade and miscellaneous receivables and other current assets		13)	4,358	*80*	4,346	*61*
Current income tax receivables		11)	79	—	86	—
Current financial assets		9)				
Current financial receivables arising from lease contracts			*56*	—	*55*	—
Securities other than investments, other financial receivables and other current financial assets			*2,391*	—	*1,254*	—
Cash and cash equivalents			*6,904*		*4,829*	
			9,351	—	6,138	—
Current assets sub-total			**14,070**	—	**10,812**	—
Discontinued operations /Non-current assets held for sale						
of a financial nature			—	—	—	—
of a non-financial nature			—	—	—	—
			—	—	**—**	—
Total Current assets	**(b)**		**14,070**	—	**10,812**	—
Total Assets	**(b+a)**		**69,187**	—	**73,234**	—

Equity and liabilities

(million euros)	notes	12/31/2021	of which with related parties	12/31/2020	of which with related parties
Equity	14)				
Capital issued		11,677	—	11,677	—
less: Treasury shares		(63)	—	(89)	—
Share capital		11,614	—	11,588	—
Additional paid-in capital		2,133	—	2,133	—
Other reserves and retained earnings (accumulated losses), including profit (loss) for the year		3,667	—	12,494	—
Equity attributable to owners of the Parent		17,414	—	26,215	—
Non-controlling interests		4,625	—	2,625	—
Total Equity		22,039	—	28,840	—
Non-current liabilities					
Non-current financial liabilities for financing contracts and others	15)	23,437	—	23,655	—
Non-current financial liabilities for lease contracts	15)	4,064	*269*	4,199	*313*
Employee benefits	20)	699	—	724	—
Deferred tax liabilities		245	—	277	—
Provisions	21)	926	—	770	—
Miscellaneous payables and other non-current liabilities	22)	1,413	*27*	3,602	*3*
Total Non-current liabilities	(d)	30,784		33,227	
Current liabilities					
Current financial liabilities for financing contracts and others	15)	5,945	*1*	3,677	—
Current financial liabilities for lease contracts	15)	651	*74*	631	*50*
Trade and miscellaneous payables and other current liabilities	23)	9,473	*265*	6,588	*163*
Current income tax payables	11)	295	—	271	—
Current liabilities sub-total		16,364		11,167	
Liabilities directly associated with Discontinued operations/Non-current assets held for sale					
of a financial nature		—	—	—	—
of a non-financial nature		—	—	—	—
		—	—	—	—
Total Current Liabilities	(e)	16,364	—	11,167	—
Total Liabilities	(f=d+e)	47,148	—	44,394	—
Total Equity and Liabilities	(c+f)	69,187	—	73,234	—

SEPARATE CONSOLIDATED INCOME STATEMENT

(million euros)	notes	Year 2021	of which with related parties	Year 2020	of which with related parties
Revenues	25)	**15,316**	*62*	**15,805**	*94*
Other income		272	*12*	211	*1*
Total operating revenues and other income		**15,588**		**16,016**	
Acquisition of goods and services		(6,550)	*(497)*	(6,173)	*(363)*
Employee benefits expenses		(2,941)	*(108)*	(2,639)	*(89)*
Other operating expenses		(1,502)	*(3)*	(961)	*(2)*
Change in inventories		10	—	(6)	—
Internally generated assets		475	—	502	—
Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)		**5,080**		**6,739**	
of which: impact of non-recurring items	41)	*(1,143)*		*(324)*	
Depreciation and amortization		(4,490)	*(50)*	(4,616)	*(39)*
Gains/(losses) on disposals of non-current assets		1	—	(11)	—
Impairment reversals (losses) on non-current assets		(4,120)	—	(8)	—
Operating profit (loss) (EBIT)		**(3,529)**		**2,104**	
of which: impact of non-recurring items	41)	*(5,263)*		*(324)*	
Share of profits (losses) of associates and joint ventures accounted for using the equity method	8)	38	—	18	—
Other income (expenses) from investments		126	—	454	—
Finance income	35)	1,124	*1*	1,143	—
Finance expenses	35)	(2,274)	*(18)*	(2,322)	*(15)*
Profit (loss) before tax from continuing operations		**(4,515)**		**1,397**	
of which: impact of non-recurring items	41)	*(5,144)*		*121*	
Income tax expense	11)	(3,885)	—	5,955	—
Profit (loss) from continuing operations		**(8,400)**		**7,352**	
Profit (loss) from Discontinued operations/Non-current assets held for sale		**—**		**—**	
Profit/(Loss) for the year	36)	**(8,400)**		**7,352**	
of which: impact of non-recurring items	41)	*(8,653)*		*6,048*	
Attributable to:					
Owners of the Parent		**(8,652)**		**7,224**	
Non-controlling interests		252		128	

(euros)		Year 2021	Year 2020
Earnings per share:	37)		
(Basic) Earnings per share			
Ordinary Share		(0.40)	0.34
Savings Share		(0.40)	0.35
of which:			
from Continuing operations attributable to Owners of the Parent			
Ordinary Share		(0.40)	0.34
Savings Share		(0.40)	0.35
Diluted earnings per share			
Ordinary Share		(0.40)	0.33
Savings Share		(0.40)	0.34
of which:			
from Continuing operations attributable to Owners of the Parent			
Ordinary Share		(0.40)	0.33
Savings Share		(0.40)	0.34

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Note 14

(million euros)		Year 2021	Year 2020
Profit/(Loss) for the year	**(a)**	**(8,400)**	**7,352**
Other components of the Consolidated Statements of Comprehensive Income			
Other components that will not be reclassified subsequently to Separate Consolidated Income Statement			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		7	(4)
Income tax effect		—	—
	(b)	**7**	**(4)**
Remeasurements of employee defined benefit plans (IAS19):			
Actuarial gains (losses)		(8)	6
Income tax effect		(3)	(1)
	(c)	**(11)**	**5**
Share of other comprehensive income (losses) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Income tax effect		—	—
	(d)	—	—
Total other components that will not be reclassified subsequently to Separate Consolidated Income Statement	**(e=b+c+d)**	**(4)**	**1**
Other components that will be reclassified subsequently to Separate Consolidated Income Statement			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		28	5
Loss (profit) transferred to Separate Consolidated Income Statement		(6)	—
Income tax effect		—	—
	(f)	**22**	**5**
Hedging instruments:			
Profit (loss) from fair value adjustments		658	(253)
Loss (profit) transferred to Separate Consolidated Income Statement		(365)	373
Income tax effect		(71)	(30)
	(g)	**222**	**90**
Exchange differences on translating foreign operations:			
Profit (loss) on translating foreign operations		50	(1,612)
Loss (profit) on translating foreign operations transferred to Separate Consolidated Income Statement		—	—
Income tax effect		—	—
	(h)	**50**	**(1,612)**
Share of other comprehensive income (losses) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Loss (profit) transferred to Separate Consolidated Income Statement		—	—
Income tax effect		—	—
	(i)	—	—
Total other components that will be reclassified subsequently to Separate Consolidated Income Statement	**(k=f+g+h+i)**	**294**	**(1,517)**
Total other components of the Consolidated Statements of Comprehensive Income	**(m=e+k)**	**290**	**(1,516)**
Total comprehensive income (loss) for the year	**(a+m)**	**(8,110)**	**5,836**
Attributable to:			
Owners of the Parent		(8,374)	6,199
Non-controlling interests		264	(363)

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

Changes from January 1, 2020 to December 31, 2020

(million euros)	Equity attributable to owners of the Parent									Non-controlling interests	Total Equity
	Share capital	Additional paid-in capital	Reserve for financial assets measured at fair value through other comprehensive income	Reserve for hedging instruments	Reserve for exchange differences on translating foreign operations	Reserve for remeasurements of employee defined benefit plans (IAS 19)	Share of other comprehensive income (losses) of associates and joint ventures accounted for using the equity method	Other reserves and retained earnings (accumulated losses), including profit (loss) for the year	**Total**		
Balance at December 31, 2019	**11,587**	**2,094**	**19**	**(440)**	**(1,417)**	**(124)**	**—**	**8,561**	**20,280**	**2,346**	**22,626**
Changes in equity during the year:											
Dividends approved	—	—	—	—	—	—	—	(316)	**(316)**	(62)	**(378)**
Total comprehensive income (loss) for the year	—	—	1	90	(1,121)	5	—	7,224	**6,199**	(363)	**5,836**
Issue of equity instruments	1	39	—	—	—	—	—	3	**43**	—	**43**
INWIT - deconsolidation	—	—	—	—	—	—	—	—	**—**	(644)	**(644)**
Daphne 3 - capital increase	—	—	—	—	—	—	—	—	**—**	1,334	**1,334**
Other changes	—	—	—	—	—	—	—	9	**9**	14	**23**
Balance at December 31, 2020	**11,588**	**2,133**	**20**	**(350)**	**(2,538)**	**(119)**	**—**	**15,481**	**26,215**	**2,625**	**28,840**

Changes from January 1, 2021 to December 31, 2021 Note 14

(million euros)	Equity attributable to owners of the Parent									Non-controlling interests	Total Equity
	Share capital	Additional paid-in capital	Reserve for financial assets measured at fair value through other comprehensive income	Reserve for hedging instruments	Reserve for exchange differences on translating foreign operations	Reserve for remeasurements of employee defined benefit plans (IAS 19)	Share of other comprehensive income (losses) of associates and joint ventures accounted for using the equity method	Other reserves and retained earnings (accumulated losses), including profit (loss) for the year	Total		
Balance at December 31, 2020	**11,588**	**2,133**	**20**	**(350)**	**(2,538)**	**(119)**	**—**	**15,481**	**26,215**	**2,625**	**28,840**
Changes in equity during the year:											
Dividends approved	—	—	—	—	—	—	—	(318)	**(318)**	(55)	**(373)**
Total comprehensive income (loss) for the year	—	—	29	222	38	(11)	—	(8,652)	**(8,374)**	264	**(8,110)**
Issue of equity instruments	26	—	—	—	—	—	—	7	**33**	—	**33**
FiberCop - capital increase	—	—	—	—	—	—	—	(98)	**(98)**	1,848	**1,750**
Daphne 3 - distribution of additional paid-in capital	—	—	—	—	—	—	—	—	**—**	(42)	**(42)**
Other changes	—	—	—	—	—	—	—	(44)	**(44)**	(15)	**(59)**
Balance at December 31, 2021	11,614	2,133	49	(128)	(2,500)	(130)	—	6,376	17,414	4,625	22,039

CONSOLIDATED STATEMENTS OF CASH FLOWS

(million euros)	notes	Year 2021	Year 2020
Cash flows from operating activities:			
Profit (loss) from continuing operations		(8,400)	7,352
Adjustments for:			
Depreciation and amortization		4,490	4,616
Impairment losses (reversals) on non-current assets (including investments)		4,118	36
Net change in deferred tax assets and liabilities		3,894	(6,538)
Losses (gains) realized on disposals of non-current assets (including investments)		(120)	(441)
Share of profits (losses) of associates and joint ventures accounted for using the equity method		(38)	(18)
Change in provisions for employee benefits		(83)	(628)
Change in inventories		(39)	20
Change in trade receivables and other net receivables		257	484
Change in trade payables		337	(231)
Net change in income tax receivables/payables		(313)	708
Net change in miscellaneous receivables/payables and other assets/liabilities		233	1,191
Cash flows from (used in) operating activities	**(a)**	**4,336**	**6,551**
Cash flows from investing activities:			
Purchases of intangible, tangible and rights of use assets on a cash basis		(4,013)	(3,477)
Capital grants received		3	24
Acquisition of control of companies or other businesses, net of cash acquired		—	(7)
Acquisitions/disposals of other investments		(100)	(11)
Change in financial receivables and other financial assets (excluding hedging and non-hedging derivatives under financial assets)		(1,183)	(251)
Proceeds from sale that result in a loss of control of subsidiaries or other businesses, net of cash disposed of		172	(33)
Proceeds from sale/repayments of intangible, tangible and other non-current assets		4	678
Cash flows from (used in) investing activities	**(b)**	**(5,117)**	**(3,077)**
Cash flows from financing activities:			
Change in current financial liabilities and other		704	(1,461)
Proceeds from non-current financial liabilities (including current portion)		4,082	1,470
Repayments of non-current financial liabilities (including current portion)		(3,072)	(2,790)
Changes in hedging and non-hedging derivatives		103	—
Share capital proceeds/reimbursements (including subsidiaries)		(42)	1,164
Dividends paid(*)		(368)	(390)
Changes in ownership interests in consolidated subsidiaries		1,757	(2)
Cash flows from (used in) financing activities	**(c)**	**3,164**	**(2,009)**
Cash flows from (used in) Discontinued operations/Non-current assets held for sale	**(d)**	**—**	**—**
Aggregate cash flows	**(e=a+b+c+d)**	**2,383**	**1,465**
Net cash and cash equivalents at beginning of the year	**(f)**	**4,508**	**3,202**
Net foreign exchange differences on net cash and cash equivalents	**(g)**	13	(159)
Net cash and cash equivalents at end of the year	**(h=e+f+g)**	**6,904**	**4,508**
(*) of which from related parties:		51	36

Purchases of intangible, tangible and rights of use assets

(million euros)	notes	Year 2021	Year 2020
Purchase of intangible assets	5)	(1,886)	(1,197)
Purchase of tangible assets	6)	(2,665)	(2,138)
Purchase of rights of use assets	7)	(746)	(1,362)
Total purchase of intangible, tangible and rights of use assets on an accrual basis(*)		(5,297)	(4,697)
Change in payables arising from purchase of intangible, tangible and rights of use assets		1,284	1,220
Total purchases of intangible, tangible and rights of use assets on a cash basis		(4,013)	(3,477)
(*) of which from related parties:		23	378

Additional Cash Flow information

(million euros)	Year 2021	Year 2020
Income taxes (paid) received	(242)	223
Interest expense paid	(1,440)	(1,520)
Interest income received	437	448
Dividends received	90	256

Analysis of Net Cash and Cash Equivalents

(million euros)	Year 2021	Year 2020
Net cash and cash equivalents at the start of the year:		
Cash and cash equivalents - from continuing operations	4,829	3,138
Bank overdrafts repayable on demand – from continuing operations	(321)	(1)
Cash and cash equivalents - from Discontinued operations/Non-current assets held for sale	—	65
Bank overdrafts repayable on demand – from Discontinued operations/Non-current assets held for sale	—	—
	4,508	**3,202**
Net cash and cash equivalents at the end of the year:		
Cash and cash equivalents - from continuing operations	6,904	4,829
Bank overdrafts repayable on demand – from continuing operations	—	(321)
Cash and cash equivalents - from Discontinued operations/Non-current assets held for sale	—	—
Bank overdrafts repayable on demand – from Discontinued operations/Non-current assets held for sale	—	—
	6,904	**4,508**

The additional disclosures required by IAS 7 are provided in the Note “Net financial debt” to these consolidated financial statements.

NOTE 1
FORM, CONTENT AND OTHER GENERAL INFORMATION

Form and content

Telecom Italia S.p.A. (the "**Parent Company**"), also known in short as "TIM S.p.A.", and its subsidiaries form the **"TIM Group" (the "Group")**.
TIM is a joint-stock company (S.p.A.) organized under the laws of the Republic of Italy.

The registered offices of the Parent, TIM, are located in Milan, Italy at Via Gaetano Negri 1.

The duration of TIM S.p.A., as stated in the company's bylaws, extends until December 31, 2100.

The TIM Group operates mainly in Europe, the Mediterranean Basin and South America.

The Group is engaged principally in the communications sector and, particularly, the fixed and mobile national and international telecommunications sector.

The TIM Group's Consolidated Financial Statements at December 31, 2021, have been prepared on a going concern basis (further details are provided in the Note "Accounting Policies") and in accordance with the recognition and measurement criteria of the International Financial Reporting Standards issued by the International Accounting Standards Board and endorsed by the European Union (designated as "**IFRS**"), as well as laws and regulations in force in Italy.

In 2021, the Group adopted accounting policies consistent with those of the previous year, except for the changes to the accounting standards issued by the IASB and in force as of January 1, 2021. See the Note "Accounting policies" for more details.

The consolidated financial statements have been prepared under the historical cost convention, except for financial assets, which are measured at the fair value recognized in the other components of the comprehensive income, financial assets measured at fair value through the income statement, and derivative financial instruments, which have been measured at fair value. The carrying amounts of hedged assets and liabilities have been adjusted to reflect the changes in fair value of the hedged risks (fair value hedge).

In accordance with IAS 1 (Presentation of Financial Statements) comparative information included in the consolidated financial statements refers, unless otherwise indicated, to the previous year.

The TIM Group consolidated financial statements as at December 31, 2021 are expressed in euro (rounded to the nearest million unless otherwise indicated).

The publication of the consolidated financial statements for the year ended December 31, 2021 of the TIM Group was approved by resolution of the Board of Directors on March 02, 2022.

Financial statement formats

The financial statement formats adopted are consistent with those indicated in IAS 1. In particular:

- **the Consolidated statements of financial position** have been prepared by classifying assets and liabilities according to the "current and non-current" criterion;
- the **Separate Consolidated Income Statement** has been prepared by classifying operating costs by nature of expense as this form of presentation is considered more appropriate and representative of the specific business of the Group, conforms to internal reporting, and is in line with the TIM Group's industrial sector.
  In addition to EBIT or Operating profit (loss), the separate consolidated income statement includes the alternative performance measure of EBITDA or Operating profit (loss) before depreciation and amortization, Capital gains (losses) and Impairment reversals (losses) on non-current assets.

  In particular, besides EBIT, EBITDA is used by TIM as the financial target in internal presentations (business plans) and in external presentations (to analysts and investors), as a useful unit of measurement for the evaluation of the operating performance of the Group (as a whole and at the Business Unit level).

EBIT and EBITDA are calculated as follows:

Profit (loss) before tax from continuing operations	
+	Finance expenses
-	Finance income
+/-	Other expenses (income) from investments
+/-	Share of profits (losses) of associates and joint ventures accounted for using the equity method
EBIT – Operating profit (loss)	
+/-	Impairment losses (reversals) on non-current assets
+/-	Losses (gains) on disposals of non-current assets
+	Depreciation and amortization
EBITDA – Operating profit before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets	

- the **Consolidated statements of comprehensive income** include the profit or loss for the year as shown in the Separate Consolidated Income Statement and all other non-owner changes in equity;
- the **Consolidated statements of cash flows** have been prepared by presenting cash flows from operating activities according to the "indirect method", as permitted by IAS 7 (Statement of Cash Flows).

Furthermore, as required by Consob Resolution 15519 of July 27, 2006, in the separate consolidated income statement, income and expenses relating to transactions which by nature do not occur during normal operation (non-recurring transactions) have been specifically identified and their impacts on the main intermediate levels have been shown separately, when they are significant. Specifically, non-recurring income/(expenses) include, for instance: income/expenses arising from the sale of properties, plant and equipment, business segments and investments; expenses stemming from company reorganization and streamlining processes and projects, also in connection with corporate transactions (mergers, spin-offs, etc.); expenses resulting from litigation and regulatory fines and related liabilities; other provisions and related reversals; costs for the settlement of disputes other than regulatory disputes; adjustments, realignments and other non-recurring items, also relating to previous years; impairment losses on goodwill and/or other intangible and tangible assets. Certain costs related to the COVID-19 pandemic are also identified as non-recurring charges.
Also in reference to the above Consob Resolution, the amounts relating to balances or transactions with related parties have been shown separately in the consolidated financial statements.

Segment reporting

An operating segment is a component of an entity:

- that engages in business activities from which it may earn revenues and incur expenses (including revenues and expenses relating to transactions with other components of the same entity);
- whose operating results are regularly reviewed by the entity's chief operating decision maker to make decisions about resources (for the TIM Group, the Board of Directors of the Parent) to be allocated to the segment and assess its performance; and
- for which separate financial information is available.

In particular, the operating segments of the TIM Group are organized according to geographic location (Domestic and Brazil) for the telecommunications business.
The term "operating segment" is considered synonymous with "Business Unit".
The operating segments of the TIM Group are as follows:

- **Domestic**: includes operations in Italy for voice and data services on fixed and mobile networks for end customers (retail) and other operators (wholesale), the operations of the Telecom Italia Sparkle group, which, at international level (Europe, the Mediterranean and South America), develops fiber optic networks for wholesale customers, the operations of the company FiberCop for the supply of passive access services to the secondary copper and fiber network, the business of Noovle S.p.A. (Cloud and Edge computing solutions), the business of Olivetti (products and services for Information Technology) and the units supporting the Domestic sector. See the section "Financial and Operating Highlights of the Business Units of the TIM Group – Domestic Business Unit" of the Report on Operations for more details;
- **Brazil**: includes mobile and fixed telecommunications operations in Brazil (TIM S.A.);
- **Other Operations**: include the financial companies (Telecom Italia Capital S.A. and Telecom Italia Finance S.A.) and other minor companies not strictly related to the TIM Group's core business.

NOTE 2
ACCOUNTING POLICIES

Going concern

The consolidated financial statements for the business year 2021 have been prepared on a going concern basis, as there is the reasonable expectation that TIM will continue conducting its business in the foreseeable future (and, in any event, over a period of at least twelve months).
In particular, the following factors have been taken into consideration:

- the main risks and uncertainties (that are for the most part of an external nature) to which the Group and the various activities of the TIM Group are exposed:
  - the changes in the general macroeconomic situation in the Italian, European and Brazilian market, including the effects deriving from the continued state of COVID-19 health emergency, as well as the volatility of financial markets in the Eurozone, partly following the UK's Brexit;
  - variations in business conditions, also related to competition;
  - changes to laws and regulations (price and rate variations);
  - outcomes of legal disputes and proceedings with regulatory authorities, competitors and other parties;
  - financial risks (interest rate and/or exchange rate trends, changes in the Group's credit rating by rating agencies);
- the optimal mix between risk capital and debt capital, as well as the policy for the remuneration of risk capital, as described in the section "Share capital information" under the Note "Equity";
- the policy for financial risk management (market risk, credit risk and liquidity risk), as described in the Note "Financial risk management".

Based on these factors, the Management believes that, at the present time, there are no elements of uncertainty regarding the Group's ability to continue as a going concern.

Principles of consolidation

The consolidated financial statements include the financial statements of all subsidiaries from the date on which control over such subsidiaries commences until the date on which control ceases.

The date of all the subsidiaries' financial statements coincides with that of the Parent company, TIM.

Control exists when the Parent company TIM S.p.A. has all the following:

- decision-making power over the investee, which includes the ability to direct the relevant activities of the investee, i.e. the activities that significantly affect the investee's returns;
- entitlement to the variable profits or losses commensurate with its shareholding in the investee;
- the ability to use its decision-making to determine the amount of the returns relating to its shareholding in the entity.

TIM assesses whether it controls an investee if facts and circumstances indicate that there are changes in one or more of the three control elements.

In the preparation of the consolidated financial statements, the global amounts of the assets, liabilities, costs and revenues of the consolidated companies are recognized on a line-by-line basis, while the share of equity and the year's result of non-controlling interest is recognized is disclosed separately under appropriate items in the consolidated statements of financial position, in the separate consolidated income statement and in the consolidated statements of comprehensive income.

Under IFRS 10 (Consolidated financial statements), the comprehensive loss (including the profit or loss for the year) is attributed to the shareholders of the parent company and to non-controlling interest even when the equity of non-controlling interest has a deficit balance.

All intragroup balances and transactions and any gains and losses arising from intragroup transactions are eliminated in consolidation.

The carrying amount of the investment in each subsidiary is eliminated against the corresponding share of equity in each subsidiary, after adjustment, if any, to fair value at the date of acquisition of control. At that date, goodwill is recorded as an intangible asset, as described below, whereas any gain from a bargain purchase (or negative goodwill) is recognized in the separate consolidated income statement.

All the assets and liabilities expressed in currencies other than euro of foreign consolidated entities that are included in the consolidation are translated using the exchange rates in effect at the reporting date (the current exchange rate method), while the related revenues and costs are translated at the average exchange rates for the year. Exchange differences resulting from the application of this method are classified as equity until the entire disposal of the investment or upon loss of control of the foreign subsidiary. Upon partial disposal, without losing control, the proportionate share of the cumulative amount of exchange differences related to the disposed interest is recognized as non-controlling interest equity. The cash flows of foreign consolidated subsidiaries expressed in currencies other than euro included in the consolidated statements of cash flows are translated into euro at the average exchange rates for the year.

Goodwill and fair value adjustments arising from the allocation of the purchase price of a foreign entity are recorded in the relevant foreign currency and are translated using the year-end exchange rate.

Under IFRS 10, changes in a parent's ownership interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions. In such circumstances, the carrying amounts of controlling and non-controlling interests shall be adjusted to reflect the changes in their relative interests in the subsidiary. Any difference between the amount by which the non-controlling interest is adjusted and the fair value of the consideration paid or received shall be recognized directly in equity and attributed to the shareholders of the parent company.

Under IFRS 10, the parent company in case of loss of control of a subsidiary:

- derecognizes:
  - the assets (including any goodwill) and the liabilities;
  - the carrying amount of any non-controlling interest;
- recognizes:
  - the fair value of any consideration received;
  - the fair value of any residual investment retained in the former subsidiary;
  - any gain or loss resulting from the transaction, in the separate consolidated income statement;
  - the reclassification to the separate consolidated income statement of the amounts previously recognized in other comprehensive income in relation to the subsidiary.

In the consolidated financial statements, investments in associates and joint ventures are accounted for using the equity method, as provided, respectively, by IAS 28 (Investments in Associates and Joint Ventures) and IFRS 11 (Joint Arrangements).

Associates are enterprises in which the Group holds at least 20% of the voting rights or exercises significant influence, but no control or joint control over their financial and operating policies.

A joint venture is a joint control arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the entity.

Joint control is the contractually agreed sharing of control of a business that exists only when decisions about the relevant business require the unanimous consent of the parties sharing control.

Associates and joint ventures are included in the consolidated financial statements from the date on which significant influence or joint control commences until the date on which significant influence or joint control ceases.

Under the equity method, on initial recognition the investment in an associate or joint venture is recognized at cost, and the carrying amount is increased or decreased to recognize the investor's share of the profit or loss of the investee after the date of acquisition. The investor's share of the investee's profit or loss is recognized in the separate consolidated income statement. Dividends received from an investee reduce the carrying amount of the investment.

Adjustments to the carrying amount may also be necessary for changes in the investee's other comprehensive income (i.e. those arising from foreign exchange translation differences). The investor's share of those changes is recognized in the investor's other comprehensive income.

If an investor's share of losses of an associate or a joint venture equals or exceeds its interest in the associate or joint venture, the investor discontinues recognizing its share of further losses. After the investor's interest is reduced to zero, additional losses are provided for, and a liability is recognized, only to the extent that the investor has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture. If the associate or joint venture subsequently reports profits, the investor resumes recognizing its share of those profits only after its share of the profits equals the share of losses not recognized.

Any other long-term interests (some types of preference shares and long-term loans) in an associate or joint venture are measured in accordance with IFRS 9.

Gains and losses resulting from "upstream" and "downstream" transactions between an investor (including its consolidated subsidiaries) and its associate or joint venture are recognized in the investor's financial statements only to the extent of unrelated investors' interests in the associate or joint venture.

The investor's share of profits and losses of the associate or joint venture arising from said transactions is eliminated.

Intangible assets

Goodwill

In accordance with IFRS 3 (Business Combinations), goodwill is recognized in the financial statements at the date of acquisition of control of a business and is determined as the excess of (a) over (b), as follows:

a) the aggregate of:

- the consideration transferred (measured in accordance with IFRS 3; it is generally recognized on the basis of the fair value at the acquisition date);
- the amount of any non-controlling interest in the acquiree measured proportionally to the non-controlling interest share of the acquiree's identifiable net assets shown at the related fair value;
- in a business combination achieved in stages, the acquisition date fair value of the acquirer's previously held equity interest in the acquiree;

b) the fair value of the identifiable assets acquired net of the identifiable liabilities assumed, measured at the date of acquisition of control.

IFRS 3 requires, inter alia, the following:

- incidental costs incurred in connection with a business combination to be charged to the separate income statements;
- in a business combination achieved in stages, the acquirer to remeasure its previously held equity interest in the acquiree at its fair value at the date of acquisition of control and recognize the resulting gain or loss, if any, in the separate income statements.

Goodwill is classified in the statement of financial position as an intangible asset with an indefinite useful life.

Goodwill initially recognized is subsequently reduced only by cumulative impairment losses (for more details, see the section "Impairment of intangible assets, tangible assets and rights of use assets - Goodwill", below). In case of loss of control of a subsidiary, the relative amount of goodwill is taken into account in calculating the gain or loss on disposal.

Development costs

Costs incurred internally for the development of new products and services represent either intangible assets (mainly costs for software development) or tangible assets. These costs are capitalized only when all the following conditions are satisfied: i) the cost attributable to the development phase of the asset can be measured reliably, ii) there is the intention, the availability of financial resources and the technical ability to complete the asset and make it available for use or sale, and iii) it can be demonstrated that the asset will be able to generate future economic benefits. Capitalized development costs comprise only incurred expenditures that can be attributed directly to the development process for new products and services.

Capitalized development costs are amortized/depreciated systematically over the estimated product or service life, so that the amortization method reflects the way in which the asset's future economic benefits are expected to be consumed by the entity.

Other intangible assets with a finite useful life

Other purchased or internally-generated intangible assets with a finite useful life are recognized as assets, in accordance with IAS 38 (Intangible Assets), when the use of the asset is likely to generate future economic benefits and when the cost of the asset can be reliably measured.

Such assets are recorded at purchase or production cost and amortized on a straight-line basis over their estimated useful lives; the amortization rates are reviewed annually and revised if the current estimated useful life is different from that estimated previously. The effect of such changes is recognized prospectively in the separate consolidated income statement.

Tangible assets

Property, plant and equipment

Property, plant and equipment are recognized at purchase or production cost. Subsequent expenditures are capitalized only if they increase the future economic benefits embodied in the related item of property, plant and equipment. All other expenditures are recognized in the separate consolidated income statement as incurred.

The cost of these assets also includes the expected costs of dismantling the asset and restoring the site, if a legal or constructive obligation exists. The corresponding liability is recognized at its present value in a provision for risks and charges in the liabilities. The recognition in the separate consolidated income statement of the capitalized expenditure is done over the useful life of the related tangible assets through their depreciation.

The calculation of estimates for dismantling costs, discount rates and the dates in which such costs are expected to be incurred is reviewed annually at each financial year-end. Changes in the above liability must be recognized as an increase or decrease of the cost of the relative asset; the amount deducted from the cost of the asset must not exceed its carrying amount. The excess, if any, is recorded immediately in the separate consolidated income statement, conventionally under the line item "Depreciation".

Depreciation is calculated on a straight-line basis over the estimated useful life of the assets.

Depreciation rates are reviewed annually and revised if the current estimated useful life is different from that estimated previously. The effect of such changes is recognized prospectively in the separate consolidated income statement.

Land, including land pertaining to buildings, is not depreciated.

Rights of use assets

In accordance with IFRS 16, lease liabilities are presented through the recognition of a financial liability in the statement of financial position consisting in the present value of future lease payments, against the recognition of the right of use of the leased asset.

On the commencement date of the lease, the right of use is recognized at cost including: the amount of the initial measurement of the lease liability, any lease payments made at or before the commencement date, initial direct costs incurred for the signature of the lease and the present value of the estimated restoration and dismantling costs set out in the lease, less any incentives.

Subsequently, the right of use is amortized over the term of the lease (or the useful life of the asset, if lower), subject to impairment and adjusted for any remeasurement of the lease liability.

It is specified that starting January 1, 2021, the TIM Group has attracted, under the scope of application of IFRS 16, if the criteria and the requirements laid down by the standard are met, the new contract types concerning cloud software resources and the spectrum of transmission frequencies on optic fiber carriers. This approach is functional to the very innovative specificity of these types of contract, concerning hardware infrastructure and optical transmission as well as technologically-advanced software services.

Capitalized borrowing costs

Under IAS 23 (*Borrowing Costs*), the Group capitalizes borrowing costs only if they are directly attributable to the acquisition, construction or production of an asset that takes a substantial period of time (conventionally more than 12 months) to get ready for its intended use or sale.

Capitalized borrowing costs are recorded in the separate consolidated income statement and deducted directly from the "finance expense" line item to which they relate.

Impairment of intangible, tangible and rights of use assets

Goodwill

Goodwill is tested for impairment at least annually or more frequently whenever events or changes in circumstances indicate that goodwill may be impaired, as set forth in IAS 36 (Impairment of Assets); however, when the conditions that gave rise to an impairment loss no longer exist, the original amount of goodwill is not reinstated.

The test is generally conducted at the end of every year, so the date of testing is the year-end closing date of the financial statements. Goodwill acquired and allocated during the year is tested for impairment at the end of the year in which the acquisition and allocation took place.

For the purpose of verifying its recoverability, goodwill is allocated, from the acquisition date, to each of the cash-generating units, or groups of cash-generating units, that is expected to benefit from the combination.

If the carrying amount of the cash-generating unit (or group of cash-generating units) exceeds the recoverable amount, an impairment loss is recognized in the separate consolidated income statement. The impairment loss is first recognized as a deduction of the carrying amount of goodwill allocated to the cash-generating unit (or group of cash-generating units) and only subsequently applied to the other assets of the cash-generating unit in proportion to their carrying amount, up to the recoverable amount of the assets with a finite useful life. The recoverable amount of a cash-generating unit (or group of cash-generating units) to which goodwill is allocated is the higher between the fair value less costs to sell and its value in use.

The fair value net of disposal costs is estimated on the basis of the income approach, insofar as this allows for the reflection of the benefits deriving from a new, different business structure in the future. In particular, the fair value net of disposal costs is based on the current value of the forecast cash flow, applying a discounting rate that reflects current market assessments of the time value of money and the risks specific to the asset. The future cash flows are those arising from an explicit time horizon between three and five years, as well as those extrapolated to estimate the terminal value.

In calculating the value in use, the estimated future cash flows are discounted to present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. The future cash flows are those arising from an explicit time horizon between three and five years, as well as those extrapolated to estimate the terminal value. The long-term growth rate used to estimate the terminal value of the cash-generating unit (or group of cash-generating units) is assumed not to be higher than the average long-term growth rate of the segment, country or market in which the cash-generating unit (or group of cash-generating units) operates.

The value in use of cash-generating units denominated in foreign currency is estimated in the local currency by discounting cash flows to present value on the basis of an appropriate rate for that currency. The present value obtained is translated to euro at the spot rate on the date of the impairment test (in the case of the TIM Group, the closing date of the financial statements).

Future cash flows are estimated by referring to the current operating conditions of the cash-generating unit (or group of cash-generating units) and, therefore, do not include either benefits originating from future restructuring for which the entity is not yet committed, or future investments for the improvement or optimization of the cash-generating unit.

For the purpose of calculating impairment, the carrying amount of the cash-generating unit is established based on the same criteria used to determine the recoverable amount of the cash-generating unit, excluding surplus assets (that is, financial assets, deferred tax assets and net non-current assets held for sale) and includes the goodwill attributable to non-controlling interest (minority shareholders).

After conducting the goodwill impairment test for the cash-generating unit (or groups of cash-generating units), a second level of impairment testing is carried out which includes the corporate assets which do not generate positive cash flows and which cannot be allocated by a reasonable and consistent criterion to the single units. At this second level, the total recoverable amount of all cash-generating units (or groups of cash-generating units) is compared to the carrying amount of all cash-generating units (or groups of cash-generating units), including also those cash-generating units to which no goodwill was allocated, and the corporate assets.

Tangible and intangible assets with finite useful lives and rights of use assets

At the end of each reporting period, the Group assesses whether there is any indication that an asset – whether intangible or tangible with finite useful lives or a right-of-use – may be impaired. Both internal and external sources of information are used for this purpose. Internal sources include obsolescence or physical deterioration, and significant changes in the use of the asset and the economic performance of the asset compared to estimated performance. External sources include the market value of the asset, any changes in technology, markets or laws, trends in market interest rates and the cost of capital used to evaluate investments, and an excess of the carrying amount of the net assets of the Group over market capitalization.

If there is any indication that an asset – whether tangible or intangible with finite useful lives or a right of use – has been impaired, then its carrying amount is reduced to its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell, and its value in use. In calculating the value in use, the estimated future cash flows are discounted to present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or right. If it is not possible to estimate the recoverable amount, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Impairment losses are recognized in the separate consolidated income statement.

When the reasons for the impairment subsequently cease to exist, the carrying value of the asset/right-of-use or of the cash generating unit is increased up to the new estimate of the recoverable amount which, however, cannot exceed the amount that would have been determined had no impairment loss been recognized. The reversal of an impairment loss is recognized as income in the separate consolidated income statement.

Financial instruments

Business models for financial assets management

For the management of trade receivables, TIM Group Management has identified different business models based on the specific nature of the receivables, the type of counterparty and collection times, this was in order to optimize the management of working capital through the constant monitoring of the payment performance of customers, the steering of credit collection policies, and the management of programs for the disposal of receivables, and the activation of factoring consistent with financial planning requirements.

The business models adopted are:

- Hold to Collect: receivables usually held to maturity, such as trade receivables due from large customers and the OLOs for the Domestic Business Unit, and all receivables for the Brazil Business Unit; these instruments fall within the IFRS 9 category “Assets measured at amortized cost”. These receivables can be transferred, albeit not recurrently, if this is needed to optimize finances;
- Hold to Collect and Sell: receivables usually traded massively and on a recurring basis, such as, for the Domestic Business Unit, receivables due from active consumer, small and business customers held for sale; these instruments fall under the IFRS 9 category "Financial assets measured at fair value through other comprehensive income". As required by IFRS 9, the related reserve is reversed to the separate consolidated income statement when disposed of or impaired.

As part of managing financial assets other than trade receivables, the TIM Group's Management identified its business models on the basis of how the financial instruments are managed and how their cash flows are used. This is done to ensure an adequate level of financial flexibility and to best manage, in terms of risks and returns, the financial resources immediately available through the treasuries of Group companies and in accordance with the strategies set forth by the Parent TIM.

The business models adopted are:

- Hold to Collect: financial instruments used to absorb temporary cash surpluses; such instruments are low risk and mostly held to maturity; they are measured at amortized cost;
- Hold to Collect and Sell: monetary or debt instruments used to absorb short/medium-term cash surpluses; such instruments are low risk and generally held to maturity, or otherwise sold to cover specific cash requirements; they are measured at fair value through other consolidated comprehensive income;
- Hold to Sell: monetary, debt and equity trading instruments used to dynamically manage cash surpluses not managed under the business models identified above; such instruments are higher risk and traded repeatedly over time; they are measured at fair value through the separate consolidated income statement.

Other investments

Other investments (other than those in subsidiaries, associates and joint ventures) are classified as non-current or current assets if they will be kept in the Group's portfolio for a period of more or not more than 12 months, respectively.

Other investments are classified as “financial assets measured at fair value through consolidated profit or loss” (FVTPL), as current assets.

At the purchase time of each investment, IFRS 9 provides for the irrevocable option to recognize these investments in "financial assets measured at fair value through other consolidated comprehensive income" (FVTOCI) as non-current or current assets.

The other investments classified as “financial assets measured at fair value through other comprehensive income” are measured at fair value; changes in the fair value of these investments are recognized in a special equity reserve under the other components of the statements of comprehensive income (Reserve for financial assets measured at fair value through other comprehensive income), without reclassification to the separate income statements when the financial asset is disposed of or impaired. Dividends are recognized in the separate consolidated income statement.

Changes in the value of other investments classified as "financial assets at fair value through profit or loss" are recognized directly in the separate consolidated income statement.

Securities other than investments

Securities other than investments, included among non-current or current assets, depending on the business model adopted and the contractual flows envisaged, fall among financial assets measured at amortized cost, or measured at fair value through other comprehensive income or at fair value though profit or loss.

Securities other than investments classified as current assets are those that, by decision of the directors, are intended to be kept in the Group's portfolio for a period of not more than 12 months, and are classified:

- as "financial assets measured at amortized cost" (AC) when held to maturity (originally more than 3 months but less than 12 months, or, although they had an original maturity of more than 12 months, they have been bought in a period during which maturity was included between 3 and 12 months);
- as "financial assets measured at fair value through other consolidated comprehensive income" (FVTOCI) when held in the scope of a business model whose objective is to sell the financial asset and/or collect the contractual cash flows. The consolidated "Reserve for financial assets measured at fair value through other comprehensive income" is reversed to the separate consolidated income statement when the financial asset is disposed of or impaired;
- as “financial assets measured at fair value through consolidated profit or loss" (FVTPL) in the other cases.

Cash and cash equivalents

Cash and cash equivalents are recorded, according to their nature, at nominal value or amortized cost.

Cash equivalents are short-term and highly liquid investments that are readily convertible to known amounts of cash, subject to an insignificant risk of change in value and their original maturity or the remaining maturity at the date of purchase does not exceed 3 months.

Impairment of financial assets

At every closing date, assessments are made as to whether there is any objective evidence that a financial asset or a group of financial assets has been impaired.

The impairment of financial assets is based on the expected credit loss model.

In particular:

- impairment on trade receivables and on contract assets is carried out using the simplified approach that involves estimating the loss expected over the life of the receivable at the time of initial recognition and on subsequent measurements. For each customer segment, the estimate is principally made by calculating the average expected uncollectibility, based on historical and statistical indicators, possibly adjusted using forward-looking elements. For some categories of receivables characterized by specific risk elements, specific measurements are made on individual credit positions;
- the impairment of financial assets other than trade receivables is calculated on the basis of a general model which estimates expected credit losses over the following 12 months or over the residual life of the asset in the event of a substantial worsening of its credit risk.

Derivative financial instruments

As allowed by IFRS 9, the TIM Group decided to continue to apply the hedge accounting provisions contained in IAS 39 instead of those of IFRS 9.

Derivatives are used by the TIM Group to manage its exposure to exchange rate and interest rate risks and to diversify the parameters of debt, so that costs and volatility can be reduced within pre-established operational limits.

In accordance with IAS 39, derivative financial instruments qualify for hedge accounting only when:

- at the inception of the hedge, the hedging relationship is formally designated and documented;
- the hedge is expected to be highly effective;
- its effectiveness can be reliably measured;
- the hedge is highly effective throughout the financial reporting periods for which it is designated.

All derivative financial instruments are measured at fair value in accordance with IAS 39.

When derivative financial instruments qualify for hedge accounting, the following accounting treatment applies:

- Fair value hedge – Where a derivative financial instrument is designated as a hedge of the exposure to changes in fair value of an asset or liability due to a particular risk, the gain or loss from re-measuring the hedging instrument at fair value is recognized in the separate consolidated income statement. The gain or loss on the hedged item attributable to the hedged risk adjusts the carrying amount of the hedged item and is recognized in the separate consolidated income statement.
- Cash flow hedge – Where a derivative financial instrument is designated as a hedge of the exposure to variability in cash flows of an asset or liability or a highly probable expected transaction, the effective portion of any gain or loss arising from the fair value adjustment of the derivative financial instrument is recognized directly in a specific equity reserve (Reserve for fair value adjustment of hedging derivative instruments). The cumulative gain or loss is removed from equity and recognized in the separate consolidated income statement during the same business years in which the hedged transaction is recognized in the separate consolidated income statement. The gain or loss associated with the ineffective portion of a hedge is recognized in the separate consolidated income statement immediately. If the hedged transaction is no longer considered to be probable, the gains or losses not yet realized included in the equity reserve are immediately recognized in the separate consolidated income statement.

For derivatives for which a hedging relationship has not been designated, changes in value compared to initial recognition are recognized directly in the separate consolidated income statement.

Financial liabilities

Financial liabilities include financial payables, including payables for advances on assignments of receivables where the assignment does not transfer substantially all the risks and rewards, as well as other financial liabilities, including derivative financial instruments and liabilities in respect of assets recognized under finance leases recognized in accordance with IFRS 16.

In accordance with IFRS 9, they also include trade and other payables.

Reverse factoring transactions are also classified under trade payables. The TIM Group has reverse factoring agreements in place through which TIM gives its bank partners a mandate to pay its suppliers as invoices become due. Suppliers participating in these programs have the rights to sell (without any cost for the TIM Group) receivables due from the Group. They can exercise this right at their total discretion and incurring all the costs to benefit from collection before the contractual due date.

Financial liabilities other than derivatives are initially recognized at fair value and subsequently measured at amortized cost.

Financial liabilities hedged by derivative instruments designed to manage exposure to changes in the value of liabilities (fair value hedge derivatives) are measured at fair value in accordance with the hedge accounting principles of IAS 39: the gains and losses deriving from subsequent fair value adjustments, only as regards the covered component, are recognized in the separate consolidated income statement and counterbalanced by the effective portion of the gain or loss deriving from the corresponding fair value measurements of the hedge instrument.

Financial liabilities hedged by derivative instruments designed to manage exposure to variability in cash flows (cash flow hedge derivatives) are measured at amortized cost in accordance with the hedge accounting principles of IAS 39.

Transfer of receivables

The TIM Group transfers receivables through factoring and securitization agreements. These transfers, in the majority of cases, are characterized by the transfer of substantially all the risks and rewards of ownership of the receivables to third parties, therefore meeting the requirements of IFRS 9 for derecognition. Special service agreements, under which the purchasers grant TIM S.p.A. a mandate to oversee the collection and management of receivables, have been entered into to maintain the relationship between the Company and its customers.

Inventories

Inventories are measured at the lower of purchase or production cost and estimated realizable value; the cost is determined using the weighted average cost formula for each movement, while the estimated realizable value is determined by observing general prices at the end of the year. Provision is made for obsolete and slow-moving inventories based on their expected future use and estimated realizable value.

Non-current assets held for sale/Discontinued operations

Non-current assets held for sale or discontinued groups whose carrying amount will mainly be recovered through sale, rather than through ongoing use, are classified as held for sale and shown separately from other assets and liabilities in the consolidated statements of financial position. The corresponding amounts for the previous year are not reclassified in the consolidated statements of financial position, but are instead shown separately in a specific column for changes in assets and liabilities in the year in which non-current assets held for sale or discontinued groups are classified as such.

Discontinued operations are a component of an entity that has been terminated or classified as held for sale and that:

- represents a major business line or geographical area of operation; or

- is part of a single coordinated plan to discontinue a separate major line of business or geographical area of operation; or
- is a subsidiary acquired exclusively with a view to resale.

The results arising from Discontinued Operations – whether discontinued or classified as held for sale – are shown separately in the separate consolidated income statement, net of tax effects. The corresponding values for the previous periods, where present, are reclassified and reported separately in the separate consolidated income statement, net of tax effects, for comparative purposes.

Non-current assets held for sale or discontinued groups classified as held for sale are first recognized in compliance with the appropriate IFRS applicable to each specific asset and liability, and subsequently measured at the lower of the carrying amount and fair value, less cost to sell.

Any subsequent impairment losses are recognized as a direct adjustment to non-current assets (or discontinued groups) classified as held for sale, with a contraentry in the separate consolidated income statement.

An upward revision of value is, instead, recognized for each subsequent increase in the fair value of an asset less cost to sell, but not in excess of the previously recognized cumulative impairment loss.

As required by IFRS 5 (Non-current assets held for sale and discontinued operations), an entity shall not depreciate (or amortize) non-current assets classified as held for sale or being part of a discontinued group.

Finance expenses and other expenses attributable to the liabilities of a discontinued group classified as held for sale must continue to be recognized.

Employee benefits

Provision for employee severance indemnity

Employee severance indemnity, mandatory for Italian companies pursuant to Article 2120 of the Italian Civil Code, is deferred compensation based on the employee's years of service and on the compensation earned by the employee during the service period.

Under IAS 19 (Employee Benefits), the employee severance indemnity, so calculated, is considered a "Defined benefit plan" and the related liability to be recognized in the statement of financial position (Provision for employee severance indemnities) is determined by actuarial calculations.

The remeasurements of actuarial gains and losses are recognized in other components of the Consolidated Statements of Comprehensive income. Service cost of Italian companies that employ less than 50 employees, as well as interest expenses related to the "time value" component of the actuarial calculations (the latter classified as Finance expenses), are recognized in the separate consolidated income statement.

Starting from January 1, 2007, the Italian Law gave employees the choice to either allocate their accruing indemnity to supplementary pension funds or it as an obligation of the Company. Companies that employ at least 50 employees must transfer the employee severance indemnity to the "Treasury fund" managed by INPS, the Italian Social Security Institute. Consequently, the Group's obligation to INPS and the contributions to supplementary pension funds take the form, under IAS 19, of "Defined contribution plans".

Equity compensation plans

The companies of the Group provide additional benefits to certain managers of the Group through equity compensation plans (for example stock options and long-term incentive plans). The above plans are recognized in accordance with IFRS 2 (Share-Based Payment).

In accordance with IFRS 2, such plans represent a component of the beneficiaries' compensation. Therefore, for the plans that provide for compensation in equity instruments, the cost is represented by the fair value of such instruments at the grant date, and is recognized in the separate consolidated income statement in "Employee benefits expenses" over the period between the grant date and vesting date with a contra-entry to an equity reserve denominated "Other equity instruments". Changes in the fair value subsequent to the grant date do not affect the initial measurement. At the end of each year, adjustments are made to the estimate of the number of rights that will vest up to expiry. The impact of the change in estimate is recorded as an adjustment to "Other equity instruments" with a contra-entry to "Employee benefits expenses".

The portion of the plans that specifies the payment of compensation in cash is recognized in liabilities as a contra-entry to "Employee benefits expenses"; at the end of each year said liability is measured at fair value.

Provisions

The Group records provisions for risks and charges when, having a current legal or constructive obligation to a third party, as a result of a past event, an outflow of Group resources is likely to be required to meet that obligation, and when the amount of the obligation can be estimated reliably. Provisions for risks and charges also include those established in the event that the company should stipulate contracts that thereafter became onerous, the non-discretionary costs of which necessary to fulfill the commitments made, exceeding the economic benefits expected from such contracts.

When the effect of the time value is material and the payment date of the obligations can be reasonably estimated, the provision is determined by discounting the given expected cash flows by taking into account the risks associated with the obligation. The increase in the provision due to the passage of time is recognized in the separate consolidated income statement as "Finance expenses".

Government grants

Government grants are recognized when there is a reasonable certainty that they will be received and that the Group will satisfy all the conditions established for their granting by the government, government agencies and equivalent local, national or international entities.

Government grants are systematically recognized in the separate income statement over the periods in which the Group recognizes the expenses that the grants are intended to offset as costs.

Government grants related to assets received for the acquisition and/or construction of non-current tangible assets are recorded as deferred income in the statement of financial position and systematically credited to the separate income statement over the useful life of the systems the grants relate to.

Treasury shares

Treasury shares are recognized as a deduction from equity. In particular, the treasury shares are reported as a deduction from the share capital issued in the amount corresponding to the "accounting par value", that is the ratio of total share capital and the number of issued shares, while the excess cost of acquisition over the accounting par value is presented as a deduction from "Other reserves and retained earnings (accumulated losses), including profit (loss) for the year".

Foreign currency transactions

Transactions in foreign currencies are recorded at the foreign exchange rate prevailing at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated at the foreign exchange rate prevailing at the statement of financial position date. Exchange differences arising from the settlement of monetary items or from their conversion at rates different from those at which they were initially recorded during the year or at the end of the prior year are recognized in the separate consolidated income statement.

Revenues

Revenues are the gross inflows of economic benefits during the period arising in the course of the ordinary activities of an entity. Amounts collected on behalf of third parties, such as sales taxes, goods and services taxes and value added taxes, are not economic benefits which flow to the entity and do not result in increases in equity. Therefore, they are excluded from revenues.

The process underlying the recognition of revenues follows the steps set out in IFRS 15:

- **identification of the contract:** this takes place when the parties approve the contract (with commercial substance) and identify the respective rights and obligations: in other terms, the contract must be legally binding, the rights to receive goods and/or services and the terms of payment can be clearly identified, and the Group considers receipt of payment as probable;
- **identification of the performance obligations**: the main performance obligations identified, i.e. promises to transfer goods and services that are distinct, are services rendered (including voice and data traffic and ICT solutions) to retail customers, services rendered to wholesale customers, and sale of products;
- **determination of the transaction price**: this is the total amount contracted with the other party regarding the entire contractual term; the Group has determined that the contractual term is the one arising from the contractual obligations between the parties or, in lack of these obligations, it is by convention one month;
- **allocation of the transaction price to the performance obligations**: the allocation is made proportionately to the respective stand-alone selling prices calculated based on the list prices (if present) or estimated by applying an appropriate margin to the cost of purchase/production of the good/service.

  Revenues from activating the connectivity service are not a performance obligation; they are therefore allocated to the contractual performance obligations (typically to services).
  For offerings which include the sale of devices and service contracts (bundle offerings), the Group allocates the contractual transaction price to the performance obligations of the contract, proportionately to the stand-alone selling prices of the single performance obligations;

- **recognition of revenues**: revenues are stated net of discounts, allowances, and returns in connection with the characteristics of the type of revenue:
  - **Revenues from services rendered**

    Revenues from services rendered are recognized in the separate income statements according to the stage of completion of the service, that is based on actual consumption.
    Traffic revenues from interconnection and roaming are reported gross of the amounts due to other TLC operators.
    Revenues for delivering information or other content are recognized on the basis of the amount invoiced to the customer, when the service is rendered directly by the Group. In the event that the Group is acting as agent (for example, for non-geographic numbers) only the commission received from the content provider is recognized as revenue.
    Revenues from prepaid traffic are recorded on the basis of effective consumption. Deferred revenues for traffic already collected but not yet consumed are recorded in "Trade and miscellaneous payables and other current liabilities" in the consolidated statements of financial position.
    Revenues for services rendered are generally invoiced and collected bimonthly/monthly for retail customers while for wholesale customers, they are invoiced on a monthly basis and due 40 or 60 days after the date of issue, depending on whether they relate to the mobile component (40 days) or fixed component (60 days).

- **Revenues from sales**

  Revenues from sales (telephone products and others) are recognized upon delivery when control of the assets is transferred to the customers.
  The devices sold separately from the services are invoiced at the time of delivery; collection takes place on demand or based on installment plans (up to 48 monthly installments). The devices sold as part of bundle offerings are invoiced at the time of delivery and usually collected in 24, 30 or 48 monthly installments, depending on the type of offer and customer cluster. With specific reference to the mobile products sold to consumer customers, collection is made at the time of sale through the financial company TIMFin, which disburses the loan to the customer.

The recognition of revenues can generate the recognition of an asset or liability deriving from contracts. In particular:

- **Contract assets** are the right to a consideration in exchange for goods or services that have been transferred to the customer, when the right is conditioned on something other than the passage of time.
- **Contract liabilities** are the obligation to transfer goods or services to the customer for which the Group has received (or for which it is due) a consideration from the customer.

Contract costs (incremental costs of obtaining a contract and costs to fulfill a contract; mainly technical activation costs and costs for sales network commissions) are deferred and recognized through separate consolidated income statement depending on the expected term of the contractual relationship with the customers. The TIM Group avails of the practical expedient, permitted under IFRS 15, of recognizing the incremental costs of obtaining a contract in the consolidated income statement if the amortization period is one year or less.

The recoverability of contract assets and deferred costs is periodically assessed.

Research and advertising costs

Research and advertising costs are directly expensed to the separate consolidated income statement in the year in which they are incurred.

Finance income and expenses

Finance income and expenses are recognized on an accrual basis and include: interest accrued on the related financial assets and liabilities using the effective interest rate method; changes in the fair value of derivatives and other financial instruments measured at fair value through the income statement; gains and losses on foreign exchange and financial instruments (including derivatives).

Dividends

Dividends received from companies other than subsidiaries, associates and joint ventures are recognized in the separate consolidated income statement on an accrual basis, i.e. in the year in which they become receivable following the resolution by the shareholders' meeting for the distribution of dividends of the investee companies.
Dividends payable to third parties are reported as a change in equity in the year in which they are approved by the shareholders' meeting.

Income tax expense (current and deferred)

Income taxes include all taxes calculated on the basis of the taxable income of the companies of the Group.

Current and deferred income taxes are calculated using all the elements and information available at the reporting date, taking into account current laws and considering all the elements that could give rise to uncertainties in the determination of the amounts due to the tax authorities, as provided for in IFRIC 23.

Income taxes are recognized in the separate consolidated income statement, except to the extent that they relate to items directly charged or credited to equity, in which case the related tax effect is recognized in the relevant equity reserves. The amount of the income tax expense relating to each item included as "Other components of the Consolidated Statements of Comprehensive income" is indicated in the Consolidated Statement of comprehensive income.

The provisions for taxes that could arise from the remittance of the undistributed earnings of subsidiaries are made only where there is the actual intention to remit such earnings.

Deferred tax liabilities / assets are recognized using the "Balance sheet liability method". They are calculated on all the temporary differences that arise between the taxable base of assets and liabilities and the related carrying amounts in the consolidated financial statements, except for differences arising from investments in subsidiaries that are not expected to reverse in the foreseeable future. Deferred tax assets relating to unused tax loss carryforwards are recognized to the extent that it is probable that future taxable income will be available against which they can be utilized. Tax assets and liabilities are offset, separately for current and deferred taxes, when income taxes are levied by the same tax authority and when there is a legally enforceable offsetting right. Prepaid tax assets and deferred tax liabilities are determined by adopting the tax rates expected to be applicable in the respective jurisdictions of the countries in which the Group companies operate, in the years in which those temporary differences are expected to be recovered or settled.

The other taxes, other than income taxes, are included in "Other operating expenses".

Earnings per share

Basic earnings per ordinary share is calculated by dividing the Group's profit attributable to ordinary shares by the weighted average number of ordinary shares outstanding during the year, and excluding treasury shares. Similarly, basic earnings per savings share is calculated by dividing the Group's profit attributable to savings shares by the weighted average number of savings shares outstanding during the year.

For diluted earnings per ordinary share, the weighted average number of shares outstanding during the year is adjusted by assuming the subscription of all the potential deriving shares - for example, by exercising rights on shares with dilutive effects. The Group profit is also adjusted to reflect the impact of these transactions net of the related tax effects.

Use of accounting estimates

The preparation of consolidated financial statements and related disclosure in conformity with IFRS requires management to make estimates and assumptions based also on subjective judgments, past experience and assumptions considered reasonable and realistic in relation to the information known at the time of the estimate. Such estimates have an effect on the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, as well as on the amount of revenues and costs during the year. Actual results could differ, even significantly, from those estimates owing to possible changes in the factors considered in the determination of such estimates. Estimates are reviewed periodically.

The most significant accounting estimates that involve a high level of subjective assumptions and judgments by directors are set out below.

Financial statements area	**Accounting estimates**
Goodwill impairment	The impairment test on goodwill is carried out by comparing the carrying amount of cash-generating units and their recoverable amount. The recoverable amount of a cash-generating unit is the higher of fair value, less costs to sell, and its value in use. This complex valuation process entails the use of methods such as the discounted cash flow method, which uses assumptions to estimate cash flows. The fair value net of disposal costs is based on the current value of forecast cash flow, calculated using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. The recoverable amount depends significantly on the discount rate used in the discounted cash flow model, as well as the expected future cash flows and the growth rate used for the extrapolation. The key assumptions used to determine the recoverable amount for the different cash-generating units, including a sensitivity analysis, are detailed in the Note "Goodwill".
Impairment of tangible and intangible assets with finite useful lives and right of use assets	At the end of each reporting period, the Group assesses whether there is any indication that an asset – whether tangible or intangible with finite useful lives or a right-of-use – has been impaired. Both internal and external sources of information are used for this purpose. Identifying the impairment indicators, estimating future cash flows and calculating the fair value of each asset requires the Management to make significant estimates and assumptions in calculating the discount rate to be used, and the useful life and residual value of the assets. These estimates can have a significant impact on the fair value of the assets and on the amount of any impairment write-down.
Business combinations	The recognition of business combinations requires that assets and liabilities of the acquiree be recorded at their fair value at the control acquisition date, as well as the possible recognition of goodwill. These values are determined through a complex estimation process.
Lease liabilities and rights of use assets	The value of lease liabilities and corresponding rights of use is determined by calculating the present value of the lease payments, also bearing in mind whether the renewal of the lease is reasonably certain.
Capitalization/deferment of costs	The capitalization/deferment of internal and external costs is a process that entails elements of estimation and valuation. Specifically, it involves the valuation of: i) the likelihood that capitalized costs will be recovered through correlated future revenues; and ii) the effective increase in the future economic benefits embodied in the related asset.
Provision for bad debts	Impairment on trade receivables and on contract assets is carried out using the simplified approach that involves estimating the loss expected over the life of the receivable at the time of initial recognition and on subsequent measurements. For each customer segment, the estimate is principally made by calculating the average expected uncollectibility, based on historical and statistical indicators, possibly adjusted using forward-looking elements. For some categories of receivables characterized by specific risk elements, specific measurements are made on individual credit positions.
Depreciation and amortization	Changes in the economic conditions of the markets, technology and competitive forces could significantly affect the estimated useful lives of tangible and intangible non-current assets and may lead to a difference in the timing, and thus on the amount of depreciation and amortization expense.

Accruals, contingent liabilities and provisions for employee benefits	As regards the provisions for restoration costs, the estimate of future costs to dismantle tangible assets and restore the site is a complex process that requires the valuation of the liabilities arising from such dismantling and restoration obligations, which seldom are entirely defined by laws, administrative regulations or contract clauses, and which normally are to be complied with after an interval of several years. The accruals related to legal, arbitration and fiscal disputes, as well as regulatory proceedings, are the result of a complex estimation process based upon the probability of an unfavorable outcome. Provisions for employee benefits, especially the provision for employee severance indemnities, are calculated using actuarial assumptions; changes in such assumptions could have a material impact on such liabilities. Provisions made for contractual risks are also related to any contracts that may have become onerous and are based on an articulated estimation process that envisages the valuation of the comprehensive negative margins of the entire contract; they therefore include the non-discretionary costs necessary to fulfill the commitments made that exceed the economic benefits expected from such contracts.
Revenues	The recognition of revenues is influenced by estimates of the amount of discounts, rebates and returns to be reported as a direct adjustment to revenues, as well as the methods for defining individual product or service stand-alone selling prices and for determining the duration of the contract when there are renewal options.
Contract costs (IFRS 15)	The recognition of the costs of obtaining and fulfilling contracts is influenced by the estimated expected duration of the relationship with the customer, calculated on the basis of the historical turnover indexes and future estimates. However, this estimate is subject to fluctuations and could only represent customers' future behavior in a limited way, especially if there are new commercial offers or changes in the competitive environment.
Income tax expense (current and deferred)	Income tax expense (current and deferred) are calculated in each country in which the Group operates according to a prudent interpretation of the applicable tax laws. This process sometimes involves complex estimates to determine taxable income and deductible and taxable temporary differences between the carrying amounts and the taxable amounts. In particular, deferred tax assets are recognized to the extent that future taxable income will be available against which they can be recovered. The measurement of the recoverability of deferred tax assets, recognized based on both unused tax loss carry-forwards to future years and deductible temporary differences, takes into account the estimate of future taxable income and is based on conservative tax planning.
Derivative instruments and equity instruments	The fair value of derivative instruments and equity instruments is determined both using valuation models which also take into account subjective measurements such as, for example, cash flow estimates, expected volatility of prices, etc., and on the basis of prices existing in regulated markets or quotations provided by financial counterparts. For further details refer to the Note "Supplementary disclosures on financial instruments".

As per IAS 8 (Accounting Policies, Changes in Accounting Estimates and Errors) paragraph 10, in the absence of a standard or interpretation that specifically applies to a transaction, the Management shall use its judgment in developing and applying an accounting policy that results in consolidated financial statements that represent faithfully the financial position, financial performance and cash flows of the Group, reflect the economic substance of transactions, and are neutral, prudential and complete in all material aspects.

New standards and interpretations endorsed by the EU and in force from January 1, 2021

As required by IAS 8 (Accounting Policies, Changes in Accounting Estimates and Errors), the following is a brief description of the IFRS in force commencing as of January 1, 2021.

Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 Reform of the interest rates benchmark - Phase 2

On January 13, 2021, Regulation (EU) no. 2021/25 was issued, which incorporated a set of amendments to the IFRSs relating to the reform of the interbanking rates offered (IBOR) and other interest rate benchmarks. The amendments aim to help the entities to provide investors with useful information on the effects of the reform on the entities' financial statements.
The amendments integrate those issued in 2019 and focus on the effects of the financial statements when an entity replaces the old interest rate benchmark with an alternative benchmark rate following the reform.
The changes during this final phase regard:

a. changes to contractual cash flows - an entity shall not eliminate or rectify the carrying amount of the financial instruments following the amendments required by the reform, but must instead add the effective interest rate to reflect the change in the alternative benchmark rate;
b. hedge accounting - an entity shall not stop booking the hedges only because the changes have been made to the hedging documentation as required by the reform, if the hedge continues to meet the other criteria for booking the hedge;
c. disclosure: an entity shall disclose information on the new risks deriving from the reform and on how it manages the transition to alternative benchmark rates.

The adoption of these amendments had no effect on the consolidated financial statements at December 31, 2021.

Amendments to IFRS 16 Leases: COVID-19-related rent concessions beyond June 30, 2021

On August 30, 2021, Regulation (EU) 2021/1421 was issued, endorsing the extension by one year of the period of application of the practical expedient of IFRS 16 Leases, to assist lessees in accounting for COVID-19-related rent concessions.

In response to requests from interested parties, and because the COVID-19 pandemic is still at its peak, the IASB has extended, by an additional year, this method of accounting for rental concessions that reduce only lease payments due by June 30, 2022.

The original amendment was issued in May 2020 to allow lessees not to account for rent concessions as lease modifications if they are a direct consequence of the COVID-19 pandemic. The amendment takes effect for financial years starting on or after April 1, 2021.

The adoption of these amendments had no effect on the consolidated financial statements at December 31, 2021.

New Standards and Interpretations issued by the IASB but not yet applicable

At the date of preparation of these consolidated financial statements, the IASB had issued the following new Standards and Interpretations which have not yet come into force and have not yet been endorsed by the EU:

	Mandatory application starting from
New Standards / Interpretations endorsed by the EU but not yet in force	
Amendments to: IFRS 3 Business combinations; IAS 16 Property, Plant and equipment; IAS 37 Provisions, Contingent Liabilities and Contingent Assets; Annual cycle of improvements 2018-2020	1/01/2022
Amendments to IAS 1 Presentation of Financial Statements: Disclosure on accounting policies	1/01/2023
Amendments to IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors: Definition of accounting estimates	1/01/2023
New Standards and Interpretations not yet in force and not yet endorsed by the EU	
Amendments to IAS 12 Income taxes: deferred tax related to assets and liabilities arising from a single transaction	1/01/2023
Amendments to IAS 1 Presentation of Financial Statements: classification of liabilities as current or non-current	1/01/2023

The potential impacts on the Group consolidated financial statements from the application of these standards and interpretations are currently being assessed.

* * *

During the fourth quarter of 2021, TIM refined some aspects of the booking of certain commercial agreements concerning the sale of goods with deferred delivery. This refinement entailed, for the first, second and third quarters of 2021, the redetermination of the distribution over time of revenues and acquisition of goods and services, for the purpose of the 2020 financial statements such commercial agreements had no material effect.

In connection with the foregoing, the economic data of the first, second and third quarters of 2021, has been recalculated. The impacts on the items of the income statements for the quarters of 2021 deriving from these refinements, are as follows:

(million euros)	2021		
	1st Quarter	2nd Quarter	3rd Quarter
Revenues	**(24)**	**—**	**(39)**
Acquisition of goods and services	**7**	**—**	**11**
Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)	**(17)**	**—**	**(28)**
Operating profit (loss) (EBIT)	**(17)**	**—**	**(28)**
Profit (loss) before tax from continuing operations	**(17)**	**—**	**(28)**
Income tax expense	5	—	8
Profit (loss) for the period	**(12)**	**—**	**(20)**
Attributable to:			
Owners of the Parent	**(12)**	**—**	**(20)**
Non-controlling interests	—	—	—

Cumulative net impacts on equity balances were as follows:

(million euros)	as at 3/31/2021	as at 6/30/2021	as at 9/30/2021
Current and non-current assets			
Trade and miscellaneous receivables and other current assets	(24)	(24)	(63)
Total Assets	**(24)**	**(24)**	**(63)**
Equity			
Equity attributable to owners of the Parent	(12)	(12)	(32)
Total Equity	**(12)**	**(12)**	**(32)**
Non-current and current liabilities			
Deferred tax liabilities	(5)	(5)	(13)
Trade and miscellaneous payables and other current liabilities	(7)	(7)	(18)
Total Equity and Liabilities	**(24)**	**(24)**	**(63)**

The redetermination of the distribution over time of revenues from acquisition of goods and services during the first, second and third quarters of 2021 did not have any impact on the "Aggregate cash flows" of the TIM Group's statements of cash flows and, in particular, on the "Cash flows from (used in) operating activities".

NOTE 3
SCOPE OF CONSOLIDATION

Investments in consolidated subsidiaries

Composition of the Group

TIM holds a majority of the voting rights in all the subsidiaries included in the scope of consolidation.
A complete list of consolidated subsidiaries is provided in the Note "List of companies of the TIM Group".

Scope of consolidation

The changes in the scope of consolidation at December 31, 2021 compared to December 31, 2020 are listed below.

Entry/exit/merger of subsidiaries into/out of the scope of consolidation:

Company		Business Unit	Month
Entry:			
PANAMA DIGITAL GATEWAY S.A.	New establishment	Domestic	July 2021
TIM SERVIZI DIGITALI S.p.A.	New establishment	Domestic	July 2021
STAER SERVIZI S.r.l.	New acquisition	Domestic	September 2021
OLIVETTI PAYMENT SOLUTIONS S.p.A.	New establishment	Domestic	December 2021
Exit:			
I-SYSTEMS S.A. (formerly FIBERCO SOLUÇÕES DE INFRAESTRUTURA S.A.)	Dilution	Brazil	November 2021
Mergers:			
FLASH FIBER S.r.l.	Merged into FIBERCOP S.p.A.	Domestic	March 2021
TIM TANK S.r.l.	Merged into TELECOM ITALIA VENTURES	Domestic	April 2021
NOOVLE FRANCE Sasu	Merged into NOOVLE S.r.l.	Domestic	July 2021
NOOVLE S.r.l.	Merged into NOOVLE S.p.A.	Domestic	October 2021

The breakdown by number of subsidiaries and associates of the TIM Group is as follows:

		12/31/2021	
Companies:	**Italy**	**Overseas**	**Total**
subsidiaries consolidated line-by-line	20	45	65
joint ventures accounted for using the equity method	2	—	2
associates accounted for using the equity method	12	1	13
Total companies	**34**	**46**	**80**

		12/31/2020	
Companies:	**Italy**	**Overseas**	**Total**
subsidiaries consolidated line-by-line	20	46	66
joint ventures accounted for using the equity method	2	—	2
associates accounted for using the equity method	10	—	10
Total companies	**32**	**46**	**78**

Further details are provided in the Note "List of companies of the TIM Group".

Subsidiaries with a significant non-controlling interest

At December 31, 2021, the TIM Group held investments in subsidiaries, with significant non-controlling interest, in relation to the companies FiberCop S.p.A., Daphne3 S.p.A. and the TIM Brazil group.

The figures provided below, stated before the netting and elimination of intragroup accounts, comply with IFRS and reflect adjustments made at the acquisition date to align the assets and liabilities acquired to their fair value.

FiberCop S.p.A. - Domestic Business Unit

Non-controlling interest accounted at December 31, 2021 for 42.0% of the capital of FiberCop S.p.A., coinciding with the corresponding voting rights.

FiberCop S.p.A. - financial position data

(million euros)	12/31/2021	12/31/2020
Non-current assets	8,441	—
Current assets	471	—
Total Assets	**8,912**	**—**
Non-current liabilities	3,293	—
Current liabilities	551	—
Total Liabilities	**3,844**	**—**
Equity	**5,068**	**—**
of which Non-Controlling Interests	*2,129*	—

FiberCop S.p.A. - income data

(million euros)	2021	2020
Revenues	978	—
Profit (loss) for the year	**321**	**—**
of which Non-Controlling Interests	*135*	—

FiberCop S.p.A. - financial data

Aggregate cash flows generated in 2021 amounted to 75 million euros.

Daphne 3 S.p.A. - Domestic Business Unit

Non-controlling interest accounted at December 31, 2021 for 49.0% of the capital of Daphne 3 S.p.A., coinciding with the corresponding voting rights.

Daphne 3 S.p.A. - financial position data

(million euros)	12/31/2021	12/31/2020
Non-current assets	2,746	2,746
Current assets	1	—
Total Assets	**2,747**	**2,746**
Non-current liabilities	1	—
Current liabilities	—	—
Total Liabilities	**1**	**—**
Equity	**2,746**	**2,746**
of which Non-Controlling Interests	*1,346*	*1,345*

Daphne 3 S.p.A. - income data

(million euros)	2021	2020
Revenues	—	—
Profit (loss) for the year	**86**	**—**
of which Non-Controlling Interests	*42*	—

Daphne 3 S.p.A. - financial data

Aggregate cash flows generated in 2021 amounted to 1 million euros (0.1 million euros in 2020).

TIM Brasil group – Brazil Business Unit

Non-controlling interest accounted at December 31, 2021 for 33.4% of the capital of TIM S.A., coinciding with the corresponding voting rights.

Financial position data TIM Brasil group

(million euros)	12/31/2021	12/31/2020
Non-current assets	5,787	5,246
Current assets	2,476	1,662
Total Assets	**8,263**	**6,908**
Non-current liabilities	2,159	1,558
Current liabilities	1,751	1,339
Total Liabilities	**3,910**	**2,897**
Equity	**4,353**	**4,011**
of which Non-Controlling Interests	*1,345*	*1,232*

Income statement data TIM Brasil group

(million euros)	2021	2020
Revenues	2,840	2,933
Profit (loss) for the year	**455**	**297**
of which Non-Controlling Interests	*155*	*104*

Financial data of the TIM Brasil group

In 2021 aggregate cash flows generated 416 million euros, with a positive exchange rate effect of 6 million euros.

In 2020, this was negative for 93 million euros, with a negative exchange rate of 151 million euros.

Finally, with regard to the subsidiaries with significant minority interests, in line with the information provided in the Report on Operations - “Main risks and uncertainties” section, the main risk factors that could lead, even significantly, to restrictions on the operations of the TIM Brasil group are listed below:

- Strategic risks (risks related to macroeconomic and political factors, as well as risks associated with foreign exchange restrictions and competition);
- Operational risks (risks related to business continuity and development of the fixed and mobile networks, as well as risks associated with litigation and disputes);
- Financial risks;
- Regulatory and Compliance risks.

NOTE 4
GOODWILL

Goodwill shows the following breakdown and changes for 2020 and 2021:

(million euros)	12/31/2019	Increase	Decrease	Impairments	Exchange differences	12/31/2020
Domestic	22,231	11		—	—	22,242
Brazil	852				(247)	605
Other Operations	—					—
Total	**23,083**	**11**	**—**	**—**	**(247)**	**22,847**

(million euros)	12/31/2020	Increase	Decrease	Impairments	Exchange differences	12/31/2021
Domestic	22,242	2		(4,120)		18,124
Brazil	605		(165)		4	444
Other Operations	—					—
Total	**22,847**	**2**	**(165)**	**(4,120)**	**4**	**18,568**

In accordance with IAS 36, goodwill is not subject to amortization, but is tested for impairment on at least an annual basis, when preparing the company's consolidated financial statements.

In 2021, Goodwill fell by 4,279 million euros, from 22,847 million euros at the end of 2020 to 18,568 million euros at December 31, 2021.

More specifically, goodwill for the Domestic Cash Generating Unit drops by 4,120 million euros as a result of the impairment following testing performed at December 31, 2021.

The change for 2021 also includes:

- with reference to the Brazil Cash Generating Unit, a decrease of 165 million euros following the deconsolidation of I-Systems S.A. (formerly FiberCo Soluções de Infraestrutura S.A.), a company set up by the Brazilian subsidiary TIM S.A. for the segregation of its network assets and the provision of infrastructure services. The deconsolidation is a consequence of the completion, in November 2021, of the agreement between TIM S.A. and IHS Fiber Brasil - Cessão de Infraestruturas Ltda. which resulted in the dilution from 100% to 49% of TIM S.A.'s investment in I-Systems S.A.. I-Systems S.A. Is now accounted for using the equity method. In addition, the item increased by 4 million euros due to the positive exchange rate difference relating to the Goodwill of the Cash Generating Unit;
- with reference to the Domestic Cash Generating Unit, an increase of 2 million euros relating to the recognition of provisional goodwill connected with the acquisition by Olivetti S.p.A. of 100% of Staer Sistemi S.r.l. completed in September 2021.

The gross carrying amounts of goodwill and the relative accumulated impairment losses from January 1, 2004 (date of allocation to the Cash-Generating Units – CGUs)) to December 31, 2021 and 2020 can be summarized as follows:

	12/31/2021			12/31/2020		
(million euros)	Gross carrying amount	Accumulated impairment losses	Net carrying amount	Gross carrying amount	Accumulated impairment losses	Net carrying amount
Domestic	38,689	(20,565)	18,124	38,687	(16,445)	22,242
Brazil	591	(147)	444	751	(146)	605
Other Operations	—	—	—	—	—	—
Total	**39,280**	**(20,712)**	**18,568**	**39,438**	**(16,591)**	**22,847**

The figures for the Brazil CGU are stated in euros, converted at the spot exchange rate at the closing date of the financial statements; the carrying amount of goodwill for the CGU corresponds, at December 31, 2021, to 2,803 million reais (3,854 million reais at December 31, 2020).

The impairment test was carried out on two levels. At a first level, the recoverable amount of the assets attributed to the individual CGUs to which goodwill is allocated was estimated; at a second level, the Group's activities were considered as a whole.

The cash generating units (or groups of units) to which goodwill is allocated are as follows:

Segment	Cash-Generating Units (or groups of units)
Domestic	Domestic
Brazil	Brazil

According to the applicable accounting rules, the "recoverable value" of the CGUs was equal to the higher of "fair value net of disposal costs" and "value in use".

At December 31, 2020, the value configuration used to determine the recoverable amount of the Domestic CGU was the value in use. The value configuration instead used to determine the recoverable amount at December 31, 2021 of the Domestic CGU is the fair value estimated on the basis of the income approach, insofar as this is considered able to best maximize the value of the Group's activities (the "market participant perspective"), also reflecting interventions on costs in view of a potential future new, different business structure.

For the Brazil CGU, the value configured used is the fair value on the basis of market capitalization at the end of the period.

The values are expressed in local currency, and hence in EUR for the Domestic CGUs and BRL for the Brazil CGU. For the Brazil CGU, the recoverable amount of the assets was denominated in the functional currency and subsequently translated at the spot exchange rate at the reporting date.

For the Domestic CGU, the estimate of fair value on the basis of the income approach was prepared in compliance with IAS 36, valuation principles and best practice, with reference to the flows of the 2022-2024 Industrial Plan, which is based on the final results of 2021: (i) it reflects realistic expectations regarding future evolutions; (ii) it brings into play careful cost cutting actions as preparation for the future business structure; (iii) it maintains the perspective of use of assets of the domestic market continuing on with the same conditions as at 12.31.2021. The expected cash flows reported in the 2022-2024 Industrial Plan approved by the Board of Directors have been critically analyzed and, with the support of expert and industrial appraisers, the average representativity has been assessed. Expected average cash flows for the 2022-2024 Industrial Plan were extrapolated for an additional two years, for which future cash flows were explicitly forecast for a period of five years (2022-2026). The extrapolation of data for 2025-2026 was necessary in order to intercept market, competition and industrial trends that will become manifest beyond the time horizon of the Industrial Plan to be captured. It is specified that where inputs are present that cannot be observed, the fair value thus determined is assigned as level 3 of the fair value hierarchy, as envisaged by IFRS 13 - Fair value measurement.

As regards the estimate of the terminal value, the sustainable long-term cash flow was assumed to be the extrapolation of the estimated cash flow at 2026, adjusted as necessary to take into consideration a suitable level of long-term capital expenditure, normalized by the effects tied to the development of innovative technology projects in place during the plan years. Furthermore, with specific reference to the incremental share of the value deriving from 5G license use and therefore from the development of new and innovative business areas, a measurement model has been adopted that takes into account the net incremental flows for a defined period of time which is based on the duration of the license. This approach is consistent with the need to include in the configuration of value, on one hand the outflows deriving from the payment of the license and the capex to support its development (as per the Industrial Plan), and on the other the positive net flows from the incremental business component of the license acquisition that will develop over a broad period of time and over the five years of explicit forecast.

The cost of capital used to discount the future cash flows in the estimates of fair value for the Domestic CGU:

- was estimated using the Capital Asset Pricing Model (CAPM), which is one of the generally accepted application criteria referred to in IAS 36;
- reflects current market estimates of the time value of money and the specific risks associated with the asset groups; includes appropriate yield premiums for country risk;
- was calculated using comparative market parameters to estimate the "Beta coefficient" and the weighting coefficient of the equity and debt capital components;

For the Domestic CGU it was as follows:

- the weighted average cost of capital (WACC rate) used to discount the future cash flows and the equivalent rate before tax;
- the growth rate used to estimate the residual value after the explicit forecast period (the G-Rate), expressed in nominal terms and related to the cash flows in their functional currency;
- details are provided of the implicit capitalization rates resulting from the difference between the cost of capital, after tax, and the G-Rate.

Principal parameters for the estimates of fair value

	Domestic
WACC	5.12 %
WACC before tax	6.71 %
Growth rate beyond the explicit period (g)	0.35 %
Capitalization rate after tax (WACC-g)	4.77 %
Capitalization rate before tax (WACC-g)	6.36 %
Capex/Revenues, perpetual	15.75 %

The growth rate in the terminal value "g" of the Domestic CGU was estimated taking into account the expected evolution of demand for the various business areas, overseen in terms of investments and competences also by the subsidiaries Noovle and FiberCop. The growth rate thus estimated falls within the range of growth rates applied by analysts who monitor TIM shares.
The phase of capital expenditure, competitive positioning and the technological infrastructure operated was taken into account in estimating the level of investment needed to sustain the perpetual development of cash flows after the explicit forecast period.

The recoverable amount determined on the basis of the Fair Value estimated on the basis of the income approach, highlighted a value reduction of 4,120 million euros of goodwill attributed to the Domestic Cash Generating Unit.

The difference between the recoverable amounts and the net carrying amounts of the CGUs considered totaled:

(million euros)	Domestic	Brazil
Difference between recoverable and net carrying amounts	-4,120	+527

Therefore, in light of the foregoing, in 2021, impairment was seen in the amount of -4,120 million euros relative to the Domestic CGU, while the goodwill values booked in relation to the Brazil CGU are confirmed, showing a positive difference of +527 million euros between the book value and the fair value calculated on the basis of market cap at December 31, 2021.

Relative to the Domestic CGU, a structural deterioration of the relevant parameters and notably the WACC may call for further impairment.

With regard to the Brazil CGU, the change in the price per share, compared to the reference quotation considered for the purposes of the financial statements, which would make the recoverable value equal to the carrying amount is equal to -10.5%.

The second level impairment test, net of the impairment recorded on the Domestic CGU, revealed a recoverable amount that exceeded the book value of the Group's business as a whole, thereby not showing any further need for impairment.

NOTE 5
INTANGIBLE ASSETS WITH A FINITE USEFUL LIFE

This item increased by 407 million euros compared to December 31, 2020. The breakdown and movements are as follows:

(million euros)	12/31/2019	Investments	Depreciation and amortization	Impairment (losses) / reversals	Disposals	Exchange differences	Other changes	12/31/2020
Industrial patents and intellectual property rights	**2,100**	649	(1,152)			(195)	387	**1,789**
Concessions, licenses, trademarks and similar rights	**4,398**	6	(473)			(288)	2	**3,645**
Other intangible assets	**3**		(2)			(1)	4	**4**
Work in progress and advance payments	**1,166**	542			(1)	(12)	(393)	**1,302**
Total	**7,667**	**1,197**	**(1,627)**	**—**	**(1)**	**(496)**	**—**	**6,740**

(million euros)	12/31/2020	Investments	Depreciation and amortization	Impairment (losses) / reversals	Disposals	Exchange differences	Other changes	12/31/2021
Industrial patents and intellectual property rights	**1,789**	731	(1,043)			4	452	**1,933**
Concessions, licenses, trademarks and similar rights	**3,645**	191	(466)			6		**3,376**
Other intangible assets	**4**	1	(2)					**3**
Work in progress and advance payments	**1,302**	963			(3)	3	(430)	**1,835**
Total	**6,740**	**1,886**	**(1,511)**	**—**	**(3)**	**13**	**22**	**7,147**

Investments in 2021 amounted to 1,886 million euros (1,197 million euros in 2020) and included 216 million euros in internally generated assets (231 million euros in 2020). Further details are provided in the Note "Internally generated assets".

Industrial patent rights and intellectual property rights as of December 31, 2021 are essentially represented by application and plant operation software purchased outright and with user licenses, they are amortized over a period of between 2 and 6 years and mainly refer to TIM S.p.A. (1,280 million euros), the Brazil Business Unit (392 million euros) and Noovle S.p.A. (163 million euros).

In 2021, for the Parent Company TIM S.p.A., the launch of the Digital Enterprise project demonstrated the need to verify the actual and future duration of the systems impacted. Therefore, IT applications were analyzed and it was verified that their actual lifecycle amounts to around 6 years. Thus, the amortization period was revised for both fixed and mobile IT software development assets, increasing it from 3 to 6 years. In 2021, this had an impact of around 115 million euros in lesser amortization. In 2022 and 2023 the estimated impact, calculated on the stock of assets at December 31, 2021, amounts to around 69 million euros and around 2 million euros, respectively in lesser amortization.

Concessions, licenses, trademarks and similar rights at December 31, 2021 mainly refer to the residual cost of telephone licenses and similar rights (2,620 million euros for TIM S.p.A. and 716 million euros for the Brazil Business Unit). Compared to December 31, 2020, this item showed a decrease of 269 million euros mainly due to amortization for the year (466 million euros) partially offset by investments for the year (191 million euros) essentially related to the recognition of the value of the 2.3 MHz and 26 GHz frequencies that the TIM Brasil group was awarded in November 2021 and thanks to which it will be able to offer 4G and 5G mobile services. The assignment of the rights to use these frequencies also entailed commercial commitments toward a new entity (EACE- Entidade Administradora da Conectividade de Escolas) which will be responsible for the development of some connectivity projects for Brazilian schools.

The residual amount of telephone licenses and similar rights in operation at December 31, 2021 (3,336 million euros) and their useful lives are detailed below:

Type	Residual amount at 12/31/2021 (million euros)	Useful life (years)	Maturity	Amortization expense for 2021 (million euros)
TIM S.p.A.:				
UMTS	—	18	12/31/2021	134
UMTS 2100 MHz	—	12	12/31/2021	7
WiMax	1	15	05/31/2023	1
LTE 1800 MHz	68	18	12/31/2029	9
LTE 800 MHz	480	17	12/31/2029	60
LTE 2600 MHz	53	17	12/31/2029	7
1452-1492 MHz band	132	14	12/31/2029	16
900 and 1800 MHz band	438	11	12/31/2029	55
3600-3800 MHz band (5G)	1,420	19	12/31/2037	89
26.5-27.5 GHz band (5G)	28	19	12/31/2037	2
TIM Brasil group:				
GSM and 3G (UMTS)	34	15	From 2023 to 2031	20
4G (LTE - 700 MHz)	494	15	2030	62
5G (2.3 GHz and 26 GHz)	188	20	2041	—

Work in progress and advance payments mainly relate to:

- the Parent Company in the amount of 1,375 million euros, including 680 million euros relating to the rights to use the 694-790 MHz (5G) frequencies held by TIM S.p.A. not yet operating and 240 million euros relating to the extension, to December 31, 2029, of the expiry date of the rights to use the 2100 MHz frequency, originally scheduled for December 31, 2021;

- the Brazil Business Unit for 406 million euros, of which 379 million euros relating to the recognition of the value of the 3.5 GHz frequencies that the TIM Brasil group was awarded in November 2021 and thanks to which it will be able to implement mobile services with 5G technology. The allocation of the rights to use these frequencies also entailed commercial commitments toward Empresa Administradora da Faixa (EAF), which will be responsible for the development of infrastructure projects.

The item also includes work in progress mainly related to software developments and investments for the digital evolution of Network Infrastructures.

Depreciation and impairment losses have been recorded in the income statement as components of EBIT.

The gross carrying amount, accumulated impairment losses and accumulated amortization at December 31, 2021 and December 31, 2020 can be summarized as follows:

(million euros)	12/31/2020			
	Gross carrying amount	**Accumulated impairment losses**	**Accumulated amortization**	**Net carrying amount**
Industrial patents and intellectual property rights	10,852	—	(9,06	1,789
Concessions, licenses, trademarks and similar rights	8,100	—	(4,45	3,645
Other intangible assets	460	—	(45	4
Work in progress and advance payments	1,302	—		1,302
Total intangible assets with a finite useful life	**20,714**	**—**	**(13,97**	**6,740**

(million euros)	12/31/2021			
	Gross carrying amount	**Accumulated impairment losses**	**Accumulated amortization**	**Net carrying amount**
Industrial patents and intellectual property rights	11,605	—	(9,67	1,933
Concessions, licenses, trademarks and similar rights	8,304	—	(4,92	3,376
Other intangible assets	464	—	(46	3
Work in progress and advance payments	1,835	—		1,835
Total intangible assets with a finite useful life	**22,208**	**—**	**(15,06**	**7,147**

With regard to the gross carrying amounts of intangible assets with a finite useful life, in 2021, disposals of 442 million euros were made by the Parent Company, relating to intellectual property rights, fully amortized, which mainly concerned releases that were obsolete following the introduction of the new ERP S4HANA software system.

NOTE 6
TANGIBLE ASSETS

Property, plant and equipment owned

This item increased by 170 million euros compared to December 31, 2020. The breakdown and movements are as follows:

(million euros)	12/31/2019	Investments	Depreciation and amortization	Impairment (losses) / reversals	Disposals	Exchange differences	Other changes	12/31/2020
Land	**226**	9			(3)	(3)		**229**
Buildings (civil and industrial)	**577**	18	(35)		(1)	(5)	23	**577**
Plant and equipment	**11,974**	1,491	(2,115)		(7)	(623)	486	**11,206**
Manufacturing and distribution equipment	**26**	4	(11)				3	**22**
Other	**350**	102	(140)		(1)	(36)	34	**309**
Construction in progress and advance payments	**858**	514		(8)	(2)	(34)	(530)	**798**
Total	**14,011**	**2,138**	**(2,301)**	**(8)**	**(14)**	**(701)**	**16**	**13,141**

(million euros)	12/31/2020	Investments	Depreciation and amortization	Impairment (losses) / reversals	Disposals	Exchange differences	Other changes	12/31/2021
Land	**229**	2					1	**232**
Buildings (civil and industrial)	**577**	23	(35)				32	**597**
Plant and equipment	**11,206**	1,885	(2,095)		(30)	21	267	**11,254**
Manufacturing and distribution equipment	**22**	4	(9)				2	**19**
Other	**309**	121	(145)			1	81	**367**
Construction in progress and advance payments	**798**	630	0			2	(588)	**842**
Total	**13,141**	**2,665**	**(2,284)**	**—**	**(30)**	**24**	**(205)**	**13,311**

Land comprises both built-up land and available land and is not subject to depreciation. The figure at December 31, 2021 refers primarily to TIM S.p.A. (187 million euros) and Noovle (32 million euros).

Buildings (civil and industrial) mainly includes buildings for industrial use hosting telephone exchanges, or for office use and light constructions. The balance at December 31, 2021 is mainly attributable to TIM S.p.A. (438 million euros) and Noovle S.p.A. (131 million euros).

The item **Plant and machinery** includes the technological infrastructure used for the provision of telecommunications services (transport and distribution of voice/data traffic). The figure at December 31, 2021 is mainly attributable to TIM S.p.A. (5,911 million euros), to FiberCop S.p.A. (3,469 million euros) and to the Brazil Business Unit (1,501 million euros).

Manufacturing and distribution equipment consists of instruments and equipment used for the operation and maintenance of plant and equipment and refers mainly to TIM S.p.A..

The item **Other** mainly consists of hardware for the functioning of the Data Center and for work stations, furniture and fixtures and, to a minimal extent, transport vehicles and office machines.

Tangible assets in progress and advance payments refer to the internal and external costs incurred for the acquisition and internal production of tangible assets, which are not yet in use.

2021 investments include 259 million euros of internally generated assets (271 million euros in 2020); further details are provided in the Note “Internally generated assets”.

Depreciation, impairment losses and reversals have been recorded in the income statement as components of EBIT.

Depreciation for the years 2021 and 2020 was calculated on a straight-line basis over the estimated useful lives of the assets according to the following minimum and maximum rates:

Buildings (civil and industrial)	2% - 5.55%
Plant and equipment	3% - 50%
Manufacturing and distribution equipment	20%
Other	10% - 50%

Furthermore, in 2021 depreciation included the estimated acceleration of depreciation as a consequence of both the switch-off of 3G in Italy, expected for June 2022 (equal to approximately 23 million euros) and the switch-off of part of the copper access network in Italy, hypothesized for end 2030 (equal to 31 million euros).

Other changes included 192 million euros relating to the deconsolidation of the Brazilian company I-Systems S.A. (formerly FiberCo Soluções de Infraestrutura S.A.).

The gross carrying amount, accumulated impairment losses and accumulated depreciation at December 31, 2021 and December 31, 2020 can be summarized as follows:

	12/31/2020			
(million euros)	**Gross carrying amount**	**Accumulated impairment losses**	**Accumulated depreciation**	**Net carrying amount**
Land	232	(3)		229
Buildings (civil and industrial)	1,907	—	(1,330)	577
Plant and equipment	69,814	(12)	(58,596)	11,206
Manufacturing and distribution equipment	324	(1)	(301)	22
Other	3,152	(2)	(2,841)	309
Construction in progress and advance payments	806	(8)		798
Total	**76,235**	**(26)**	**(63,068)**	**13,141**

(million euros)	12/31/2021			
	Gross carrying amount	Accumulated impairment losses	Accumulated depreciation	Net carrying amount
Land	235	(3)		232
Buildings (civil and industrial)	1,960	—	(1,363)	597
Plant and equipment	70,535	(12)	(59,269)	11,254
Manufacturing and distribution equipment	330	(1)	(310)	19
Other	3,305	(2)	(2,936)	367
Construction in progress and advance payments	844	(2)		842
Total	**77,209**	**(20)**	**(63,878)**	**13,311**

With regard to the gross carrying amounts of tangible assets, it is worth mentioning that in 2021, the Parent Company TIM S.p.A. carried out disposals for a total value of 535 million euros, mainly in relation to fully depreciated assets. The assets most affected were: access networks (155 million euros), switching systems (148 million euros), UMTS transmission plants and network transmission devices (71 million euros), underground fiber optic (57 million euros), office furniture, furnishings and machines (42 million euros) and rented terminals (31 million euros).

NOTE 7
RIGHTS OF USE ASSETS

The item decreased by 145 million euros compared to December 31, 2020. The breakdown and movements are as follows:

(million euros)	12/31/2019	Investments	Increases in lease contracts	Depreciation and amortization	Disposals	Exchange differences	Other changes	12/31/2020
Property	**3,398**	12	869	(397)	(112)	(129)	(730)	**2,911**
Plant and equipment	**1,901**	30	396	(252)	(234)	(335)	403	**1,909**
Other tangible assets	**151**		23	(39)	(4)	(2)	(8)	**121**
Construction in progress and advance payments	**44**	32					(25)	**51**
Total	**5,494**	**74**	**1,288**	**(688)**	**(350)**	**(466)**	**(360)**	**4,992**

(million euros)	12/31/2020	Investments	Increases in lease contracts	Depreciation and amortization	Disposals	Exchange differences	Other changes	12/31/2021
Property	**2,911**	35	298	(343)	(14)	4	(43)	**2,848**
Plant and equipment	**1,909**	25	328	(314)	(5)	11	(107)	**1,847**
Other tangible assets	**121**		35	(37)	(2)		2	**119**
Construction in progress and advance payments	**51**	19	2				(42)	**30**
Intangible assets			4	(1)				**3**
Total	**4,992**	**79**	**667**	**(695)**	**(21)**	**15**	**(190)**	**4,847**

2021 capital expenditures mainly refer to the Domestic Business Unit and are essentially related to the acquisition of IRU transmission capacity and improvements and incremental expenses incurred on leased property and non-property assets.

The increases in finance leasing contracts in 2021, equal to 667 million euros, refer in particular to the Brazil Business Unit (441 million euros) and the Domestic Business Unit (226 million euros).

These increases include the higher value of the rights of use recorded as a result of new leases, increases of lease payments and renegotiations of agreements existing both land and buildings for office use and industrial relationship over time, to infrastructure sites for the mobile telephone network infrastructure and network.

Amortization and impairment losses have been recorded in the income statement as components of EBIT.

The disposals are representative of the carrying amount of the assets from lease agreements that terminated early.

Other changes included, inter alia, transfers to operating activities and the lower value of the rights of use recorded as a result of contractual changes during the year. In 2021 they mainly refer to the Brazil Business Unit.

The item **Property** includes buildings and land under passive leases and the related building adaptations, essentially attributable to the Parent Company (2,415 million euros) and the Brazil Business Unit (324 million euros) and Noovle S.p.A. (89 million euros).

The item **Plant and equipment** mainly includes rights of use on infrastructures for telecommunications services. These refer to the Brazil Business Unit (928 million euros), the Parent (610 million euros), the Telecom Italia Sparkle group (184 million euros) and FiberCop S.p.A. (124 million euros). This includes, inter alia, the recognition of the value of the telecommunications towers sold by the TIM Brasil group to American Tower do Brasil and subsequently repurchased in the form of a finance lease.

The item **Other tangible assets** mainly comprises the leases on motor vehicles. In addition, the right of use for the lease of the business unit relating to all the assets organized for the full performance of the "construction", "delivery" and "assurance" activities for telecommunications networks and equipment, deriving from the contract entered into between TIM Servizi Digitali S.p.A. and Sittel S.p.A., is recorded herein for an amount of 17 million euros. The corresponding financial lease liability for the obligation to comply with the contractual payments is recorded against the right of use.

The item **Intangible assets** includes the recording as lease, starting 2021, of a Software as a Service (SaaS) contract, in exchange for which TIM S.p.A. has acquired the right to make exclusive use of software licenses residing on partitions of third party hardware platforms dedicated exclusively to the Company.

The gross carrying amount, accumulated impairment losses and accumulated depreciation at December 31, 2021 and December 31, 2020 can be summarized as follows:

	12/31/2020			
(million euros)	**Gross carrying amount**	**Accumulated impairment losses**	**Accumulated depreciation**	**Net carrying amount**
Property	5,075	(13)	(2,151)	2,911
Plant and equipment	3,047	(271)	(867)	1,909
Other	267		(146)	121
Construction in progress and advance payments	51			51
Total	**8,440**	**(284)**	**(3,164)**	**4,992**

	12/31/2021			
(million euros)	**Gross carrying amount**	**Accumulated impairment losses**	**Accumulated depreciation**	**Net carrying amount**
Property	5,327	(13)	(2,466)	2,848
Plant and equipment	3,304	(277)	(1,180)	1,847
Other	291		(172)	119
Construction in progress and advance payments	30			30
Intangible assets	4	—	(1)	3
Total	**8,956**	**(290)**	**(3,819)**	**4,847**

Impairment losses on “Plant and equipment”, mainly relating to prior years, refers to the Indefeasible Rights of Use (IRU) for the transmission capacity and cables for international connections acquired by the Telecom Italia Sparkle group.

With reference to the gross values of rights of use of third party assets, in 2021 the Parent Company TIM S.p.A. carried out disposals for a total value of 650 million euros, relating to rights of use of IRU fiber (607 million euros), leased properties (25 million euros), leased vehicles (9 million euros), base transceiver stations (7 million euros) and leasehold improvements (2 million euros).

NOTE 8
INVESTMENTS

Investments in associates and joint ventures accounted for using the equity method

Investments in associates and joint ventures accounted for using the equity method are reported below in detail.

(million euros)		12/31/2021	12/31/2020
I-Systems S.A.		253	—
Satispay S.p.A.		20	—
NordCom S.p.A.		6	5
W.A.Y. S.r.l.		4	4
QTI S.r.l		2	—
Tiglio I S.r.l.		—	1
Other		3	3
Total Associates	**(a)**	**288**	13
INWIT S.p.A.		2,669	2,713
TIMFin S.p.A.		22	2
Total Joint Ventures	**(b)**	**2,691**	**2,715**
Total investments accounted for using the equity method	**(a+b)**	**2,979**	**2,728**

The changes in this item are broken down as follows:

(million euros)	12/31/2019	Investments	Disposals and reimbursements of capital	Valuation using equity method	Other changes	12/31/2020
NordCom S.p.A.	5					5
W.A.Y. S.r.l.	3			1		4
Tiglio I S.r.l.	1			—		1
Other	2	1				3
Total Associates	**11**	**1**		**1**	**—**	**13**
INWIT S.p.A.	—		(659)	(238)	3,610	**2,713**
TIMFin S.p.A.	—	3		(1)		**2**
Total Joint Ventures	**—**	**3**	**(659)**	**(239)**	**3,610**	**2,715**
Total investments accounted for using the equity method	**11**	**4**	**(659)**	**(238)**	**3,610**	**2,728**

(million euros)	12/31/2020	Investments	Disposals and reimbursements of capital	Valuation using equity method	Other changes	12/31/2021
I-Systems S.A.				(2)	255	**253**
Satispay S.p.A.		20				**20**
NordCom S.p.A.	5			1		**6**
W.A.Y. S.r.l.	4					**4**
QTI S.r.l		2				**2**
Tiglio I S.r.l.	1		(1)			**—**
Other	3	1			(1)	**3**
Total Associates	**13**	**23**	**(1)**	**(1)**	**254**	**288**
INWIT S.p.A.	2,713			(44)		**2,669**
TIMFin S.p.A.	2	24		(4)	—	**22**
Total Joint Ventures	**2,715**	**24**	**—**	**(48)**	**—**	**2,691**
Total investments accounted for using the equity method	**2,728**	**47**	**(1)**	**(49)**	**254**	**2,979**

The “other changes” for 2021 mainly include the carrying amount of the investment in I-Systems S.A. (formerly FiberCo Soluções de Infraestrutura S.A.) following the deconsolidation of the company.

In November 2021, once the regulatory authorization process had been completed, the agreement was finalized between TIM S.A. (Brazil Business Unit) and IHS Fiber Brasil - Cessão de Infraestruturas Ltda. ("IHS Brasil"), in order to acquire an equity stake in FiberCo Soluções de Infraestrutura S.A. ("FiberCo"), a company established by TIM S.A. for the segregation of network assets and the provision of infrastructure services. The closing of the transaction resulted in the dilution from 100% to 49% of TIM S.A.'s investment in I-Systems, which is now accounted for by the TIM Group using the equity method.

Shareholder relations are governed by a shareholders' agreement.

The operation was worth 1.68 billion reais, divided up into a primary component of 0.58 billion reais, for the treasury of I-Systems, and a secondary component of 1.10 billion reais, paid to TIM S.A.. The enterprise value of I-Systems was established at 2.71 billion reais and the equity value, after the contribution of the primary component, was set at 3.29 billion reais. The operation also considers possible additional earnings deriving from an earn-out component.

In addition, under the scope of the Operation, TIM S.A. and I-Systems have stipulated an agreement to develop the Fiber-to-the-Site (FTTS) infrastructure to connect TIM sites in the areas in which FiberCo will be developing the new infrastructure granting access to fiber optic broadband.

The "Investments" for 2021 include both the acquisition of the stake in Satispay by TI Ventures S.r.l. in March 2021, and the payments, by TIM S.p.A., to TIMFin S.p.A.

In 2021, "valuation using the equity method" of the investment in INWIT includes:

- the portion pertaining to the positive economic result of the investee including, the greater amortization charge, at consolidated level, of the assets to which part of the greater value deriving from the corporate integration transaction of Vodafone Towers S.r.l. in INWIT (43 million euros) has been allocated;
- the reduction in the carrying amount of the equity investment for dividends received in the year (87 million euros).

Following a series of operations carried out last year, at present, TIM holds a 30.2% share in INWIT S.p.A. indirectly, through a holding company called Daphne 3, controlled with a 51% stake. The associate in the holding company is a consortium of institutional investors led by Ardian. The holding company has taken over from TIM - in the shareholders' agreement already stipulated between TIM and Vodafone Europe, by virtue of which, joint control is exercised over INWIT.

Essential information on the shareholders' agreements (i) between TIM and Vodafone (now Daphne 3/Central Tower Holding Company) and (ii) between TIM and Ardian can be consulted on the INWIT website (inwit.it).

The list of **investments accounted for using the equity method** is presented in the Note "List of companies of the TIM Group".

Investments in associates accounted for using the equity method of the TIM Group are not material either individually or in aggregate form.

Investments in structured entities

The TIM Group does not hold investments in structured entities.

Other investments

Other investments refer to the following:

(million euros)	12/31/2019	Investments	Disposals and reimbursements of capital	Valuation at fair value	Other changes	12/31/2020
Fin.Priv. S.r.l.	21			(5)		16
Northgate CommsTech Innovations Partners L.P.	19	6				25
Other	12	1		—		13
Total	52	7	—	(5)	—	54

(million euros)	12/31/2020	Investments	Disposals and reimbursements of capital	Valuation at fair value	Other changes	12/31/2021
Fin.Priv. S.r.l.	16			6		22
Northgate CommsTech Innovations Partners L.P.	25	1		(9)		17
UV T-Growth		12				12
SECO S.p.A.		38		54		92
Other	13					13
Total	54	51	—	51	—	156

In particular, it should be noted that, during the year 2021:

- the subsidiary Olivetti S.p.A. acquired 9.6% of the share capital of SECO S.p.A., the company specialized in the miniaturization of computers and in the Internet of Things sector;
- TIM S.p.A. has subscribed shares in the UV T-Growth venture capital fund for 12 million euros.

At December 31, 2021, the TIM Group had a subscription commitment for units:

- in the Northgate CommsTech Innovations Partners L.P. fund for 8 million USD, equal to approximately 7 million euros at the exchange rate as at December 31, 2021;
- of the UV T-Growth fund in the amount of 48 million euros.

As permitted by IFRS 9, TIM now measures Other Investments at “fair value through other comprehensive income (FVTOCI)”.

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

NOTE 9

NON-CURRENT AND CURRENT FINANCIAL ASSETS

Non-current and current financial assets were broken down as follows:

(million euros)		12/31/2021	12/31/2020
Other non-current financial assets			
Securities other than investments		—	—
Receivables from employees		39	40
Hedging derivatives relating to hedged items classified as non-current assets/liabilities of a financial nature		1,935	1,970
Non-hedging derivatives		100	44
Other financial receivables		211	213
		2,285	**2,267**
Financial receivables for lease contracts		**45**	**43**
Total non-current financial assets	**(a)**	**2,330**	**2,310**
Securities other than investments, other financial receivables and other current financial assets			
Securities other than investments			
Measured at amortized cost (AC)		—	—
Measured at fair value through other comprehensive income (FVTOCI)		1,515	767
Measured at fair value through profit or loss (FVTPL)		734	325
		2,249	**1,092**
Financial receivables and other current financial assets			
Liquid assets with banks, financial institutions and post offices (with maturity over 3 months)		—	—
Receivables from employees		12	13
Hedging derivatives relating to hedged items classified as current financial assets/liabilities		80	97
Non-hedging derivatives		41	50
Other short-term financial receivables		9	2
		142	**162**
	(b)	**2,391**	**1,254**
Financial receivables for lease contracts	**(c)**	**56**	**55**
Cash and cash equivalents	**(d)**	**6,904**	**4,829**
Total current financial assets	**e=(b+c+d)**	**9,351**	**6,138**
Financial assets relating to Discontinued operations/Non-current assets held for sale	**(f)**	**—**	**—**
Total non-current and current financial assets	**g=(a+e+f)**	**11,681**	**8,448**

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

Financial receivables for lease contracts refer to:

- finance leases on user rights and equipment;

- commercial offers for TIM Consumer and Business customers involving the rental of ADSL routers;
- agreements for the sale of network infrastructure in IRU with deferred collection over time recognized using the financial method envisaged by IFRS 16 given the contractual term substantially close to the economic life of the asset;
- lease contracts for commercial products with customers. The financial receivables for lease assets are offset by the financial debt for the corresponding leases payable.

Hedging derivatives relating to hedged items classified as non-current assets/liabilities of a financial nature mainly refer to the mark-to-market spot valuation component of the hedging derivatives, whereas **hedging derivatives relating to hedged items classified as current assets/liabilities of a financial nature** refer to accrued income on such derivative contracts.

Non-hedging derivatives consist mainly of the mark-to-market component of the non-hedging derivatives of the Brazil Business Unit. More specifically, they include 72 million euros in relation to the option to subscribe shares of C6 Bank with which TIM S.A. entertains commercial relations. The figure also includes IRS derivatives of 18 million euros belonging to fair value hedges of bond loans in euros, discontinued starting from June 2021 due to the failure of the prospective efficiency tests carried out at December 31, 2021.

Further details are provided in the Note "Derivatives".

Other financial receivables refer 205 million euros to the loan that TIM S.p.A. is owed by Ardian (through the financial vector Impulse I) following the transaction by means of which TIM S.p.A. conferred 30.2% of INWIT's shares to Daphne 3.

Securities other than investments included in current financial assets relate to:

- 1,515 million euros of listed securities, of which 840 million euros of Italian and European treasury bonds purchased by Telecom Italia Finance S.A. as well as 675 million euros of bonds purchased by Telecom Italia Finance S.A. with different maturities, all with an active market and consequently readily convertible into cash. Under IFRS 9 and consistently with the Business model, such securities are classified as financial assets measured at fair value through other comprehensive income (FVTOCI). The purchases of the above government bonds, which, pursuant to Consob Communication no. DEM/11070007 of August 5, 2011, represent investments in "Sovereign debt securities", have been made in accordance with the Guidelines for the "Management and control of financial risk" adopted by the TIM Group;
- 734 million euros of investments in monetary funds by the Brazil Business Unit, which, under IFRS 9, are classified as financial assets measured at fair value through profit or loss (FVTPL).

On the basis of two securities lending agreements signed with Telecom Italia Finance S.A. on November 27, 2019 and thereafter renewed on April 28, 2020, TIM S.p.A. received on loan until February 2, 2021 (renewable term) 98 million euros (nominal) of BTP 03/01/2023 and 150 million euros of BTP 04/15/2021; starting December 1, 2019, TIM S.p.A loans these securities to the counterparty NatWest.

On January 27, 2021, TIM S.p.A. renewed the securities lending agreement in place with Telecom Italia Finance S.A., which envisages the lending until February 15, 2023 of 98 million euros (nominal) of BTP 3/1/2023.

On January 29, 2021, TIM S.p.A. borrowed until October 5, 2023 (subject to renewal) 24 million euros (nominal) in BTP 10/15/2023 and 67.5 million euros (nominal) in BTP 2/1/2026; furthermore TIM S.p.A. lent the counterparty NatWest said securities in compliance with the agreement stipulated on December 21, 2020.

In addition, Telecom Italia Finance S.A. also has additional securities lending contracts with banking counterparties concerning securities worth (a nominal) 171 million euros.

From an accounting standpoint, in compliance with IAS/IFRS, the assets are shown exclusively in the financial statements of Telecom Italia Finance S.A., which retains the risks and benefits associated with the position.

Further details are provided in the Note "Accounting policies".

Cash and cash equivalents increased by 2,075 million euros compared to December 31, 2020 and were broken down as follows:

(million euros)	12/31/2021	12/31/2020
Liquid assets with banks, financial institutions and post offices	6,092	4,433
Checks, cash and other receivables and deposits for cash flexibility	—	—
Securities other than investments (due within 3 months)	812	396
Total	**6,904**	**4,829**

The different technical forms of use of available cash at December 31, 2021 had the following characteristics:

- maturities: investments have a maximum maturity of three months;
- counterparty risk: deposits have been made with leading high-credit-quality banks and financial institutions with a rating of at least BBB according to Standard & Poor's with regard to Europe, and with leading local counterparts with regard to investments in South America;
- country risk: deposits have been made mainly in major European financial markets.

Securities other than investments (due within 3 months) included 812 million euros (395 million euros at December 31, 2020) of Brazilian bank certificates of deposit (Certificado de Depósito Bancário) held by the Brazil Business Unit with premier local banking and financial institutions.

NOTE 10
MISCELLANEOUS RECEIVABLES AND OTHER NON-CURRENT ASSETS

Compared to December 31, 2020, this item increased by 152 million euros and were broken down as follows:

(million euros)		12/31/2021	*of which Financial Instruments*	12/31/2020	*of which Financial Instruments*
Miscellaneous receivables (non-current)	**(a)**	433	**144**	**516**	**151**
Other non-current assets					
Deferred contract costs		1,755		1,522	
Other cost deferrals		78		76	
	(b)	**1,833**		**1,598**	
Total	**(a+b)**	**2,266**	**144**	**2,114**	**151**

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

Miscellaneous non-current receivables totaled 433 million euros (516 million euros at December 31, 2020) and included Non-current income tax receivables of 147 million euros (64 million euros at December 31, 2020).

This item was mainly due to the Brazil Business Unit (379 million euros; 467 million euros at December 31, 2020).

More specifically, at December 31, 2021, the Brazil Business Unit has non-current receivables relating to indirect tax for 137 million euros (296 million euros at December 31, 2020) and direct tax for 116 million euros (33 million euros at December 31, 2020), including receivables relating to the decision made by the Supreme Federal Court (STF) on the waiver of collection of corporate income tax (IRPJ) and social contributions (CSLL) on the monetary recalculation that uses the SELIC rate in cases of undue payment.

Non-current receivables also include receivables for court deposits of 116 million euros (126 million euros at December 31, 2020).

Other non-current assets amounted to 1,833 million euros (1,598 million euros at December 31, 2020). They mainly break down as follows:

- **Deferred contract costs** of 1,755 million euros (1,522 million euros at December 31, 2020), mainly related to the deferral of costs related to the activation and acquisitions of new contracts with customers. Contract costs are deferred and recognized through separate profit or loss depending on the expected term of the contractual relationship with the customers. In 2021, the expected duration of the contractual relationship with customers went from 3 to 4 years for the mobile business and from 7 to 8 years for the fixed-line business, following an improvement to the churn on customers recorded in recent years, as a result of the loyalty and retention actions and the drive on converging offers. The positive impact at 31 December, 2021 amounted, at a consolidated level, to a total of 164 million euros; for the years 2022 and 2023, with regard to the outstanding amount at 31 December, 2021, a positive impact of 103 million euros and 52 million euros respectively is estimated in reference entirely to the Parent Company, gross of intragroup eliminations.

  Total (non-current and current) deferred contract costs amounted to 2,297 million euros (2,139 million euros at December 31, 2020) and break down as follows:

(million euros)	12/31/2021	12/31/2020
Deferred contract costs		
Non-current deferred contract costs	1,755	1,522
Current deferred contract costs	542	617
Total	**2,297**	**2,139**

(million euros)	12/31/2021	12/31/2020
Deferred contract costs		
Contract acquisition costs	1,246	1,132
Contract execution costs	1,051	1,007
Total	**2,297**	**2,139**

Changes to comprehensive deferred contract costs in 2021 are as follows:

(million euros)	12/31/2020	Increase	Release to income statement	Exchange differences and other changes	12/31/2021
Contract acquisition costs	1,132	390	(278)	2	1,246
Contract execution costs	1,007	250	(206)	—	1,051
Total	**2,139**	**640**	**(484)**	**2**	**2,297**

The deferred contract costs will be recognized in the income statement for future years and, in particular, of around 555 million euros in 2022, based on the amount at December 31, 2021 without taking into account the new deferred portions.

(million euros)	12/31/2021	year of recognition in the income statement					
		2022	2023	2024	2025	2026	After 2026
Contract acquisition costs	1,246	324	274	219	158	111	160
Contract execution costs	1,051	231	218	193	157	112	140
Total	**2,297**	**555**	**492**	**412**	**315**	**223**	**300**

- **Other deferred costs** of 78 million euros, mainly attributable to the Parent and to companies of the Brazil Business Unit and of the Telecom Italia Sparkle group.

NOTE 11

INCOME TAX EXPENSE (CURRENT AND DEFERRED)

Current income tax receivables

Non-current and current income tax receivables at December 31, 2021 amounted to 226 million euros (150 million euros at December 31, 2020).

Specifically, they consisted of:

- non-current income tax receivables of 147 million euros (64 million euros at December 31, 2020), relating to the companies of the Brazil Business Unit (116 million euros) and the Parent TIM S.p.A. (31 million euros). They include receivables of TIM S.A. relating to the decision of the Brazilian Supreme Federal Court on the non-collection of corporate income tax and social contributions on the monetary recalculation that uses the SELIC rate in cases of undue payment and receivables not transferred by the Parent Company relative to tax and interest deriving from the recognized deductibility from IRES tax of the IRAP tax calculated on labor costs, relating to years prior to 2012, following the entry into force of Italian Decree Law 16/2012;
- current income tax receivables of 79 million euros (86 million euros at December 31, 2020), relating to the companies of the Domestic Business Unit (51 million euros) and the Brazil Business Unit (26 million euros). They include the IRES tax receivable for surplus payments and withholdings of 5 million euros and the IRAP receivable for 29 million euros for surplus down payments made and for the benefit deriving from the presentation of supplementary declarations following the ruling signed on August 3, 2020 with the Revenue Agency for the application of the patent box benefit of the Parent Company TIM S.p.A..

Tax assets and deferred tax liabilities

The net balance of 3,268 million euros at December 31, 2021 (7,219 million euros at December 31, 2020) breaks down as follows:

(million euros)	12/31/2021	12/31/2020
Deferred tax assets	3,513	7,496
Deferred tax liabilities	(245)	(277)
Total	**3,268**	**7,219**

Deferred tax assets at December 31, 2021 mainly referred to the Domestic Business Unit, at 3,427 million euros. At December 31, 2020, deferred tax assets mainly referred to the Domestic Business Unit, at 7,383 million euros.

In the 2020 financial statements, the Parent Company TIM S.p.A. had benefited from the possibility of realigning the tax values to the greater value of the assets booked, specifically the value of goodwill of 23,051 million euros, as envisaged by Decree Law 104/2020, Art. 110, subsections 8 and 8 bis. Accordingly, this resulted, in exchange for payment of substitute tax in the amount of 3% of the realigned value (692 million euros), in the possibility to deduct the tax amortization of the realigned value of 23,051 million euros over 18 years, starting 2021. These deductions, which would have generated benefits in terms of IRES and IRAP, have been fully noted at December 31, 2020 amongst deferred tax assets in the amount of 6,569 million euros, in view of the possibility of absorption through the Company's future taxable income, also taking into account the fact that IRES losses can be carried forward without time limits, where such may arise due to temporary incapacity of taxable income.

The 2022 Budget Law (Law 234/2021, art. 160) amended the duration of the period during which amortization of tax-recognized goodwill could be deducted, taking it to 50 years and this resulted in the writing off of 50% of deferred tax assets for 3,285 million euros (of which 2,766 million euros for IRES and 519 million euros for IRAP), which go beyond the time frame of visibility for absorption, which had been identified as 25 years in the 2020 financial statements. The remaining deferred IRAP tax assets for 540 million euros were also written-off, mainly relating to the realigned goodwill in consideration of the changed assessment of the time frame for recoverability of deferred tax assets, also determined on the basis of the 2022 - 2024 Industrial Plan of the Parent Company TIM S.p.A. For the same reason, the Parent Company has not entered new deferred tax assets for period tax losses. This write-off does not exclude for the future, the possibility of reversing this impairment with the booking of all or part of the deferred tax assets where they should be deemed recoverable.

In 2021, in accordance with art. 19 of Decree Law no. 73/2021, the Parent Company TIM S.p.A. also transformed the deferred tax assets for tax losses carried forward and ACE surpluses (within the limit of 20% of the impaired loans transferred) into tax credits in the amount of approximately 20 million euros; these receivables were subsequently offset against VAT payable.

Deferred tax liabilities mainly refer to Telecom Italia Capital for 214 million euros (252 million euros at December 31, 2020) and the Domestic Business Unit for 20 million euros (13 million euros at December 31, 2020).

Since the presentation of prepaid and deferred taxes in the financial statements takes into account the offsets by legal entity when applicable, the composition of the gross amounts before offsets is presented below:

(million euros)	12/31/2021	12/31/2020
Deferred tax assets	3,999	7,931
Deferred tax liabilities	(731)	(712)
Total	**3,268**	**7,219**

The temporary differences which made up this line item at December 31, 2021 and 2020, as well as the movements during 2021, were as follows:

(million euros)	12/31/2020	Recognized in profit or loss	Recognized in equity	Change in scope of consolidation and other changes	12/31/2021
Deferred tax assets					
Tax loss carryforwards (*)	100	(41)		(13)	46
Derivatives	625	(5)	(103)		517
Provision for bad debts	126	1		1	128
Provisions	260	106		2	368
Taxed depreciation and amortization	96	8			104
Tax realignment pursuant to Decree Law 104/2020 Art. 110	6,569	(3,914)			2,655
Other Prepaid tax assets	155	29	4	(7)	181
Total	**7,931**	**(3,816)**	**(99)**	**(17)**	**3,999**
Deferred tax liabilities					
Derivatives	(532)	2	37	1	(492)
Business combinations - for step-up of net assets in excess of tax basis	(67)	(37)	—	52	(52)
Accelerated depreciation and amortization	(53)	(31)		1	(83)
Convertible bonds	—		(45)		(45)
Other deferred taxes	(60)	3		(2)	(59)
Total	**(712)**	**(63)**	**(8)**	**52**	**(731)**
Total Deferred tax assets net of Deferred tax liabilities	**7,219**	**(3,879)**	**(107)**	**35**	**3,268**

(*) For the new flow of tax losses in 2021, the Parent Company TIM S.p.A. has not entered deferred tax assets.

The expirations of deferred tax assets and deferred tax liabilities at December 31, 2021 were the following:

(million euros)	.Within next year	Beyond 1 year	Total at 12/31/2021
Deferred tax assets	505	3,494	3,999
Deferred tax liabilities	(122)	(609)	(731)
Total Deferred tax assets net of Deferred tax liabilities	**383**	**2,885**	**3,268**

At December 31, 2021, the TIM Group had unused tax loss carryforwards of 2,287 million euros, mainly relating to the company Telecom Italia Finance and the Parent TIM S.p.A., with the following expiration dates:

Year of expiration	(million euros)
2022	—
2023	2
2024	—
2025	3
2026	1
Expiration after 2026	29
Without expiration	2,252
Total unused tax loss carryforwards	**2,287**

Unused tax loss carryforwards considered in the calculation of deferred tax assets amounted to 150 million euros at December 31, 2021 (323 million euros at December 31, 2020) and mainly referred to the Brazil Business Unit and the Parent TIM S.p.A.. Deferred tax assets were recognized as it was considered probable that taxable income will be available in the future against which the tax losses can be utilized.
On the other hand, deferred tax assets relative to foreign subsidiaries of 333 million euros (354 million euros at December 31, 2020) were not recognized on 1,325 million euros of tax loss carry-forwards since, at the reporting date, their recoverability was not considered probable.
At December 31, 2021, deferred tax liabilities were not recognized on approximately 0.8 billion euros of tax-suspended reserves and undistributed earnings of subsidiaries, because the TIM Group is in a position to control the timing of the distribution of those reserves and it is probable that those accumulated earnings will not be distributed in the foreseeable future. The contingent liabilities relating to taxes that should be recognized, if these reserves are distributed, are in any case not significant.

Current income tax payables

Current income tax payables amounted to 526 million euros (764 million euros at December 31, 2020). They break down as follows:

(million euros)	12/31/2021	12/31/2020
Income taxes payable:		
non-current	231	493
current	295	271
Total	**526**	**764**

The current portion, of 295 million euros, refers to the Domestic Business Unit (265 million euros) and the Brazil Business Unit (30 million euros) and includes the second installment of the substitute tax pursuant to Decree Law 104/2020, Art. 110, paragraphs 8 and 8 bis of the Parent Company (231 million euros).
The non-current portion, amounting to 231 million euros, refers to the Parent Company TIM S.p.A. and relates to the third installment of substitute tax pursuant to Decree Law 104/2020, Art. 110, paragraphs 8 and 8 bis.

Income tax expense

The income tax expense for the years 2021 and 2020 breaks down as follows:

(million euros)		2021	2020
Current taxes for the year		15	777
Net difference in prior year estimates		(4)	(197)
Total current taxes		**11**	**580**
Deferred taxes		3,874	(6,535)
Total income tax expense on continuing operations	**(a)**	**3,885**	**(5,955)**
Income tax expense on Discontinued operations/Non-current assets held for sale	**(b)**	**—**	**—**
Total income tax expense for the year	**(a+b)**	**3,885**	**(5,955)**

Deferred tax includes the write-off for 3,825 million euros, of which 2,766 million euros for IRES, equal to 50% of the deferred tax assets entered in 2020 following the higher values booked in accordance with Decree Law 104/2020, Art. 110, subsections 8 and 8 bis and 1,059 million euros for the residual deferred IRAP tax assets entered for the realignment of goodwill and other items.

As already specified, the write-off of deferred tax assets is due to the extension to 50 years of the period of resorption of the realigned amount of goodwill introduced by Art. 160 of the 2022 Budget Law (Law 234/2021) and the changed assessment of the time frame for recovery of deferred tax assets of the parent company TIM S.p.A.

The reconciliation between the theoretical tax expense, using the IRES tax rate in force in Italy (24%), and the effective tax expense for the years ended December 31, 2021 and 2020 is as follows:

(million euros)		2021	2020
Profit (loss) before tax from continuing operations		**(4,515)**	**1,397**
Theoretical income tax from continuing operations		**(1,084)**	**335**
Income tax effect on increases (decreases) in variations			
Tax losses of the year not considered recoverable		2	1
Tax losses from prior years not recoverable (recoverable) in future years		(20)	(20)
Non-deductible write-down of goodwill		989	—
IRES taxes for previous years		(8)	(299)
Prepaid IRES tax (benefit)/write-off pursuant to Decree Law 104/2020, Art. 110 and others		2,961	(5,532)
Brazil: different tax rate compared to the theoretical rate in force in Italy		48	33
Brazil: investment incentives		(28)	(28)
Other net differences		(59)	(137)
Effective taxes recognized in the Income Statement, excluding IRAP and substitute tax		**2,801**	**(5,647)**
Prepaid IRAP including tax (benefit)/write-off pursuant to Decree Law 104/2020, Art. 110		1,084	(1,000)
Substitute tax pursuant to Decree Law 104/2020 art. 110		—	692
Total effective taxes recognized in the Income Statements from continuing operations	**(a)**	**3,885**	**(5,955)**
Effective taxes recognized in the Income Statement from Discontinued operations/Non-current assets held for sale	**(b)**	**—**	**—**
Total of actual taxes to income statement	**(a)+(b)**	**3,885**	**(5,955)**

For the analysis of the tax burden related to the Profit (loss) before tax from continuing operations, the impact of IRAP and substitute tax pursuant to Decree Law 104/2020, Art. 110, has been kept separate to avoid any distorting effect, since these taxes only apply to Italian companies and are calculated on a tax base other than pre-tax profit.

NOTE 12
INVENTORIES

The item increased compared to December 31, 2020, by 40 million euros and is broken down as follows:

(million euros)	12/31/2021	12/31/2020
Raw materials and supplies	2	2
Work in progress and semi-finished products	5	2
Finished goods	246	238
Deposits on stocks	29	—
Total	**282**	**242**

Inventories essentially consist of fixed and mobile telecommunications equipment and handsets and related accessories, as well as office products and specialized printers.

Inventories consist of 250 million euros for the Domestic Business Unit (204 million euros at December 31, 2020), also due to a purchasing trend recorded during the year, which was higher than that of consumption, on the Fixed segment of the Parent Company Tim S.p.A. and 32 million euros for the Brazil Business Unit (38 million euros at December 31, 2020).

The item “Deposits on stocks” refers to deposits paid by Telecom Italia Sparkle to construct transmission systems, limited to the component for resale also through financial lease transfer contracts.

Inventories are stated net of a provision for bad debts amounting to 21 million euros (13 million euros at December 31, 2020).

NOTE 13

TRADE AND MISCELLANEOUS RECEIVABLES AND OTHER CURRENT ASSETS

This item rose by 12 million euros compared to December 31, 2020. The figure breaks down as follows:

(million euros)		12/31/2021	*of which Financial Instruments*	12/31/2020	*of which Financial Instruments*
Trade receivables					
Receivables from customers		1,545	*1,545*	2,140	*2,140*
Receivables from other telecommunications operators		1,130	*1,130*	765	*765*
	(a)	**2,675**	*2,675*	**2,905**	*2,905*
Miscellaneous receivables (current)					
Receivables due from others	(b)	**780**	*101*	**516**	*85*
Other current assets					
Contract assets		20	*20*	25	*25*
Deferred contract costs		542		617	
Other cost deferrals		273		217	
Other		68		66	
	(c)	**903**	*20*	925	*25*
Total	(a+b+c)	**4,358**	***2,796***	**4,346**	***3,015***

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

The analyses of the aging of the financial instruments included in Trade and miscellaneous receivables and other current assets at December 31, 2021 and December 31, 2020 are provided below:

				of which overdue from:			
(million euros)	**12/31/2021**	**of which non-overdue**	**of which overdue**	**0-90 days**	**91-180 days**	**181-365 days**	**More than 365 days**
Trade and miscellaneous receivables and other current assets	**2,796**	2,270	526	151	68	77	230

				of which overdue from:			
(million euros)	**12/31/2020**	**of which non-**	**of which overdue**	**0-90 days**	**91-180 days**	**181-365 days**	**More than 365 days**
Trade and miscellaneous receivables and other current assets	**3,015**	2,388	627	116	133	102	276

Overdue receivables fell by 118 million euros compared to December 31, 2020. This performance is mainly a result of, for 2021: the Domestic Business Unit companies (-178 million euros), and the Brazil Business Unit (+60 million euros, including a positive exchange effect of approximately 3 million euros).

Overdue receivables fell by 101 million euros compared to December 31, 2020. This performance is mainly a result of, for 2021: the Parent Company (-71 million euros), and the Brazil Business Unit (-43 million euros, including a positive exchange effect of approximately +1 million euros) and the Domestic Business Unit companies (+13 million euros).

Trade receivables amounted to 2,675 million euros (2,905 million euros at December 31, 2020) and are stated net of the provision for bad debts of 565 million euros (627 million euros at December 31, 2020). They included 9 million euros (13 million euros at December 31, 2020) of medium/long-term receivables, in respect of agreements for the sale of transmission capacity under Indefeasible Rights of Use (IRU).
Trade receivables mainly related to TIM S.p.A. (1,906 million euros) and to the Brazil Business Unit (511 million euros).

Movements in the provision for bad debts were as follows:

(million euros)	12/31/2021	12/31/2020
At January 1	**627**	**757**
Provision charges to the income statement	212	282
Utilization and decreases	(287)	(369)
Change in the scope of consolidation	1	1
Exchange rate differences and other changes	12	(44)
At December 31	**565**	**627**

In particular, the provision for bad debt at December 31, 2021 suffered the provisions made in 2021 for a total of 212 million euros, of which 20 million euros are non-recurring of the Domestic Business Unit in connection with the COVID-19 health emergency, which resulted in a worsening of the Expected Credit Losses of customers, consequent to the expected deterioration of the macroeconomic context. For more details, see the Note "Non-recurring Events and Transactions".

Miscellaneous receivables (current) refer to other receivables amounting to 780 million euros (516 million euros at December 31, 2020) and are net of a provision for bad debts of 46 million euros (48 million euros at December 31, 2020). Details are as follows:

(million euros)	12/31/2021	12/31/2020
Advances to suppliers	270	22
Receivables from employees	10	10
Tax receivables	268	254
Receivables for grants from the government and public entities	14	29
Sundry receivables	218	201
Total	**780**	**516**

Tax receivables mainly relate to:

- the Brazil Business Unit (240 million euros) and are related to local indirect taxes.
- the Parent Company (15 million euros) essentially for credit amounts resulting from tax returns, tax credits, as well as VAT credits on the acquisition of motor vehicles and related accessories requested for reimbursement pursuant to Law Decree no. 258/2006 converted with amendments by Law no. 278/2006.

Receivables for grants from the government and public entities (14 million euros) referred mainly to the ultrabroadband-UBB and broadband-BB projects. The grants are recognized to the income statement when the related plants become ready for use.

Sundry receivables mainly included:

- TIM S.p.A. receivables for Universal Service (52 million euros);
- TIM S.p.A. receivables for with-recourse assignments to factoring companies (43 million euros);
- miscellaneous receivables of TIM S.p.A. from other TLC operators (32 million euros);
- TIM S.p.A. receivables from social security and pension institutions (13 million euros).

Other current assets included:

- **Contract assets with customers**: this item includes the effect of the early recognition of revenues for those bundle contracts (such as bundles of products and services) with individual performance obligations with a different recognition timing, in which the goods recognized "at a point in time" are sold at a discounted price, or for those contracts which, by providing for a discount for a period of time shorter than the minimum contract term, require, pursuant to IFRS 15, a reallocation of the discount over the minimum contractual term. Contract Assets at December 31, 2021 amounted to 20 million euros (25 million euros at December 31, 2020), net of the related write-down provision of 1 million euros and drop by 5 million euros, since the reversal to the income statement of the previously accumulated balance was substantially offset by the need to distribute discounts granted to customers temporally over the minimum contractual term, with particular reference to those connected with the impact of COVID-19;
- **Deferred contract costs** (542 million euros, 617 million euros at December 31, 2020): these are contract costs (mainly technical activation costs and commissions for the sales network) deferred and recognized in the separate income statement according to the expected duration of the contractual relationship with customers. As indicated above, in 2021 the expected duration of the contractual relationship went from 3 to 4 years for the mobile business and from 7 to 8 years for the fixed-line business, with a positive impact, at consolidated level, totaling 164 million euros at December 31, 2021. Further details on Deferred contract costs are provided in the Note "Miscellaneous receivables and other non-current assets".
- **Other deferred costs** mainly concern:
  - the Parent Company essentially for the deferral of costs related to rental charges and other lease and rental costs (172 million euros), the deferral of costs for the purchase of products and services (24 million euros), deferral of after-sales expenses on application offers (23 million euros), insurance premiums (4 million euros) and maintenance fees (3 million euros);
  - the Telecom Italia Sparkle group, mainly concerning the deferral of costs connected with leases for circuits and maintenance fees (13 million euros);
  - the Brazil Business Unit relative to marketing activities (approximately 14 million euros), insurance premiums (approximately 5 million euros) and maintenance contracts (approximately 5 million euros).

NOTE 14
EQUITY

Equity consisted of:

(million euros)	12/31/2021	12/31/2020
Equity attributable to owners of the Parent	17,414	26,215
Non-controlling interests	4,625	2,625
Total	**22,039**	**28,840**

The composition of **Equity attributable to owners of the Parent** is the following:

(million euros)		12/31/2021		12/31/2020
Share capital		11,614		11,588
Additional paid-in capital		2,133		2,133
Other reserves and retained earnings (accumulated losses), including profit (loss) for the year		3,667		12,494
Reserve for financial assets measured at fair value through other comprehensive income	49		20	
Reserve for hedging instruments	(128)		(350)	
Reserve for exchange differences on translating foreign operations	(2,500)		(2,538)	
Reserve for remeasurements of employee defined benefit plans (IAS 19)	(130)		(119)	
Share of other comprehensive income (losses) of associates and joint ventures accounted for using the equity method	—		—	
Sundry reserves and retained earnings (accumulated losses), including profit (loss) for the year	6,376		15,481	
Total		**17,414**		**26,215**

At December 31, 2021, the **share capital** was 11,614 million euros, already net of treasury shares for 63 million euros (11,588 million euros, already net of treasury shares for 89 million euros at December 31, 2020).

The amount of treasury shares during 2021 changed as follows:

- decrease due to the assignment of 6,715,617 ordinary shares of TIM S.p.A. to implement the 2018 Long Term Incentive Plan;
- decrease due to the assignment of 38,604,270 ordinary shares of TIM S.p.A. free of charge to entitled Group employees adhering to the 2020 Broad-Based Share Ownership Plan.

For further details, refer to the Note "Equity Compensation Plans".

It should be noted that the share capital carries a restriction on tax suspension for fiscal purposes for an amount of 11,104 million euros, unchanged on December 31, 2020 and inclusive of 9,913 million restricted in accordance with Decree Law 104/2020, art. 110, subsection 8.

Movements in share capital during 2021 are presented in the following tables:

Reconciliation between the number of shares outstanding at December 31, 2020 and December 31, 2021

(number of shares)		as at 12/31/2020	Share assignment/issue	as at 12/31/2021	% of share capital
Ordinary shares issued	(a)	15,329,466,496	—	15,329,466,496	71.78%
less: treasury shares	(b)	(161,262,083)	45,319,887	(115,942,196)	
Ordinary shares outstanding	(c)	15,168,204,413	45,319,887	15,213,524,300	
Savings shares issued and outstanding	(d)	6,027,791,699	—	6,027,791,699	28.22%
Total TIM S.p.A. shares issued	**(a+d)**	**21,357,258,195**	**—**	**21,357,258,195**	**100.00%**
Total TIM S.p.A. shares outstanding	**(c+d)**	**21,195,996,112**	**45,319,887**	**21,241,315,999**	

Reconciliation between the value of shares outstanding at December 31, 2020 and December 31, 2021

(million euros)		Share capital at 12/31/2020	Change in share capital	Share Capital at 12/31/2021
Ordinary shares issued	(a)	8,381	—	**8,381**
less: treasury shares	(b)	(89)	26	**(63)**
Ordinary shares outstanding	(c)	8,292	26	**8,318**
Savings shares issued and outstanding	(d)	3,296	—	**3,296**
Total TIM S.p.A. share capital issued	**(a+d)**	**11,677**	**—**	**11,677**
Total TIM S.p.A. share capital outstanding	**(c+d)**	**11,588**	**26**	**11,614**

The total value of ordinary treasury shares at December 31, 2021, amounting to 364 million euros, was recorded as follows: the part relating to accounting par value (63 million euros) recognized as a deduction from the share capital issued and the remaining part as a deduction from Other reserves and retained earnings (accumulated losses), including profit (loss) for the year.

Disclosure on share capital

The ordinary and savings shares of TIM S.p.A. are listed in Italy (FTSE index).

In the shareholder resolutions passed to increase share capital against cash payments, the pre-emption right can be excluded to the maximum extent of ten percent of the pre-existing share capital, on condition that the issue price corresponds to the market price of the shares and that this is confirmed in a specific report issued by the firm charged with the audit of the Company.

The Group sources itself with the capital necessary to fund its business development and operation requirements; the sources of funds are found in a balanced mix of equity, permanently invested by the shareholders, and debt capital, to guarantee a balanced financial structure and minimize the total cost of capital, with a resulting advantage to all the stakeholders.

Debt capital is structured according to different maturities and currencies to ensure an adequate diversification of the sources of funding and an efficient access to external sources of financing (taking advantage of the best opportunities offered in the financial markets of the euro, U.S. dollar and Pound sterling areas to minimize costs), taking care to reduce the refinancing risk.

The remuneration of equity is proposed by the board of directors to the shareholders' meeting, during which the annual financial statements are approved, based upon market trends and business performance, once all the other obligations are met, including debt servicing. Therefore, to ensure an adequate remuneration of capital, safeguard company continuity and business development, the Group constantly monitors the change in debt levels in relation to equity, the level of net debt and the operating margin of industrial operations.

Privileges of savings shares

The privileges of TIM S.p.A. savings shares are indicated below:

- the profit shown in the duly approved financial statements, after deducting the amount to be allocated to the legal reserve, must be distributed to the holders of savings shares in an amount up to 5% of the 0.55 euros per share;
- after assigning preferred dividends to the savings shares, the distribution of which is approved by the shareholders' meeting, the remaining profit shall be allocated among all the shares, so that savings shares are entitled to higher overall dividends than ordinary shares would be entitled to, to the extent of 2% of 0.55 euros per share;
- when, in any one year, dividends of below 5% of the 0.55 euros per share are paid to the savings shares, the difference is determined as an increase of the privileged dividend in the next two subsequent years;
- in the case of the distribution of reserves, the savings shares have the same rights as ordinary shares. Moreover, when there is no profit or insufficient profit is reported in the financial statements for a given year to satisfy the aforesaid savings shares privileges, the Shareholders' Meeting called to approve those financial statements may choose to satisfy the dividend right and/or the higher dividend right by distributing available reserves. The distribution of available reserves for such payments excludes the application of the mechanism extending the right to the preferred dividend not paid through the distribution of profits for the following two years;
- the reduction of share capital as a result of losses does not affect the savings shares except for the amount of the loss which is not covered by the portion of the share capital represented by the other shares;
- upon the wind-up of TIM S.p.A., the savings shares have a pre-emption right in the reimbursement of capital up to the amount of 0.55 euros per share;
- in the event of the cessation of trading in the Company's ordinary or savings shares, the holder of savings shares may ask TIM S.p.A. to convert his/her shares into ordinary shares, using the method selected during a special session of the shareholders' meeting called for that purpose within two months of being excluded from trading.

Additional paid-in capital, amounting to 2,133 million euros, was unchanged with respect to December 31, 2020. The reserve is entirely restricted under tax suspension in accordance with Decree Law 104/2020, Art. 110, subsection 8.

Other reserves moved through the Statements of comprehensive income comprised:

- The **Reserve for financial assets measured at fair value through other comprehensive income**, positive for 49 million euros at December 31, 2021, increased by 29 million euros compared to the figure at December 31, 2020. In particular, the change in 2021 includes the losses from the securities portfolio of Telecom Italia Finance (18 million euros, of which 6 million euros were realized), the losses on the TI Ventures securities portfolio (9 million euros), the profits recorded by Olivetti for the valuation of SECO S.p.A. (54 million euros), the losses related to other financial assets held by the Parent Company TIM (4 million euros) and the profits related to the equity investment in Fin.Priv. S.r.l. of the Parent Company TIM (6 million euros). This reserve is expressed net of deferred tax liabilities of 1 million euros (at December 31, 2020, it was expressed net of deferred tax liabilities of 1 million euros).
- The **Reserve for cash flow hedges** had a negative balance of 128 million euros at December 31, 2021, (negative 350 million euros at December 31, 2020). This reserve is stated net of deferred tax assets of 39 million euros (at December 31, 2020, it was stated net of deferred tax assets of 110 million euros). In particular, this reserve includes the effective portion of gains or losses on the fair value adjustments of derivatives designated as hedges of the exposure to volatility in the cash flows of assets or liabilities recognized in the financial statements ("cash flow hedge").
- The **Reserve for exchange differences on translating foreign operations** showed a negative balance of 2,500 million euros at December 31, 2021 (negative 2,538 million euros at December 31, 2020) and mainly related to exchange differences resulting from the translation into euros of the financial statements of companies belonging to the Brazil Business Unit (negative for 2,523 million euros versus negative for 2,550 million euros at December 31, 2020).
- The **Reserve for the re-measurement of defined benefits plans for employees**, negative for 130 million euros, drops by 11 million euros on December 31, 2020 following the recording of the changes in actuarial gains (losses), net of the related tax effect.
- The **Share of other comprehensive income (losses) of associates and joint ventures accounted for using the equity method** is nil at both December 31, 2021 and December 31, 2020.

Other sundry reserves and retained earnings (accumulated losses), including profit (loss) for the year amounted to 6,376 million euros and decreased by 9,105 million euros, as detailed below:

(million euros)	2021	2020
Profit (loss) for the year attributable to owners of the Parent	(8,652)	7,224
Dividends approved - TIM S.p.A.	(318)	(316)
Issue of equity instruments	7	3
Other changes	(44)	9
Change for the year in Sundry reserves and retained earnings (accumulated losses), including profit (loss) for the year	**(9,105)**	**6,920**

Part of Other sundry reserves and accrued profits (losses), including profit (loss) for the year of TIM S.p.A. is restricted under tax suspension in accordance with Decree Law 104/2020, Art. 110, subsection 8. For more details, reference is made to the “Equity” Note of the Parent Company.

In 2021, dividends deliberated by TIM S.p.A. are 318 million euros and refer to the distribution to Shareholders of a dividend of 0.0100 euro per ordinary share and 0.0275 euro per savings share, gross of statutory withholding taxes. In 2020, the dividends deliberated by TIM S.p.A. were 316 million euros and referred to ordinary shares (dividend per share of 0.0100 euros) and to savings shares (dividend per share of 0.0275 euros).

Equity attributable to non-controlling interest, amounting to 4,625 million euros, mainly refers to FiberCop S.p.A. (1,969 million euros), to Daphne 3 S.p.A. (1,316 million euros) and the companies of the Brazil Business Unit (1,345 million euros) and shows an increase of 2,000 million euros compared to December 31, 2020, as detailed below:

(million euros)	2021	2020
Profit (loss) for the year attributable to Non-controlling interest	252	128
Group Company dividends paid to minority shareholders	(55)	(62)
Changes in the Reserve for exchange differences on translating foreign operations	12	(491)
FiberCop - capital increase	1,848	—
Daphne 3 - capital increase	—	1,334
Daphne 3 - distribution of additional paid-in capital	(42)	
INWIT - deconsolidation	—	(644)
Other changes	(15)	14
Change for the year in Equity attributable to Non-controlling interest	**2,000**	**279**

The Group company dividends paid to minority shareholders mainly referred to the Brazil Business Unit for 55 million euros. 2020 dividends mainly referred to the Brazil Business Unit for 61 million euros.

The Reserve for exchange differences on translating foreign operations attributable to non-controlling interest showed a negative balance of 1,155 million euros at December 31, 2021 (negative for 1,167 million euros at December 31, 2020), relating entirely to exchange differences arising from the translation into euros of the financial statements of the companies belonging to the Brazil Business Unit.

Future potential changes in share capital

Details of “Future potential changes in share capital” are presented in the Note “Earnings per share”.

NOTE 15

NON-CURRENT AND CURRENT FINANCIAL LIABILITIES

Non-current and current financial liabilities (gross financial debt) are broken down as follows:

(million euros)		12/31/2021	12/31/2020
Non-current financial liabilities for financing contracts and others			
Financial payables (medium/long-term):			
Bonds		17,383	16,898
Convertible bonds		—	1,958
Payables to banks		4,394	2,772
Other financial payables		306	185
		22,083	**21,813**
Other medium/long-term financial liabilities:			
Hedging derivatives relating to hedged items classified as non-current assets/liabilities of a financial nature		1,337	1,832
Non-hedging derivatives		17	10
Other liabilities		—	—
		1,354	**1,842**
	(a)	**23,437**	**23,655**
Non-current financial liabilities for lease contracts	**(b)**	**4,064**	**4,199**
Total non-current financial liabilities	**c=(a+b)**	**27,501**	**27,854**
Current financial liabilities for financing contracts and others			
Financial payables (short term):			
Bonds		1,514	982
Convertible bonds		1,998	6
Payables to banks		2,099	2,506
Other financial payables		236	119
		5,847	**3,613**
Other short-term financial liabilities:			
Hedging derivatives relating to hedged items classified as current assets/liabilities of a financial nature		62	62
Non-hedging derivatives		36	2
Other liabilities		—	—
		98	**64**
	(d)	**5,945**	**3,677**
Current financial liabilities for lease contracts	**(e)**	**651**	**631**
Total current financial liabilities (*)	**f=(d+e)**	**6,596**	**4,308**
Financial liabilities directly associated with Discontinued operations/Non-current assets held for sale	**(g)**	**—**	**—**
Total Financial liabilities (Gross financial debt)	**h=(c+f+g)**	**34,097**	**32,162**

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

Gross financial debt according to the original currency of the transaction is as follows:

	12/31/2021		12/31/2020	
	(millions of foreign currency)	(million euros)	(millions of foreign currency)	(million euros)
USD	5,789	5,111	5,899	4,807
GBP	389	463	389	433
BRL	12,694	2,008	8,415	1,320
YEN	20,030	154	20,030	158
ILS	51	14	54	14
EUR		26,347		25,430
Total		**34,097**		**32,162**

For the exchange rates used for the conversion of amounts in foreign currency, see the Note "Other information".

The breakdown of gross financial debt by effective interest-rate bands applicable to the original currency is provided below, excluding the effect of any derivative hedging instruments:

(million euros)	12/31/2021	12/31/2020
Up to 2.5%	8,619	6,047
From 2.5% to 5%	12,872	13,497
From 5% to 7.5%	7,055	6,692
From 7.5% to 10%	1,971	1,906
Over 10%	1,437	1,317
Accruals/deferrals, MTM and derivatives	2,143	2,703
Total	**34,097**	**32,162**

Following the use of hedging derivative instruments, on the other hand, gross financial debt by nominal interest rate level is:

(million euros)	12/31/2021	12/31/2020
Up to 2.5%	15,353	15,640
From 2.5% to 5%	9,936	8,052
From 5% to 7.5%	3,396	3,352
From 7.5% to 10%	1,334	1,098
Over 10%	1,935	1,317
Accruals/deferrals, MTM and derivatives	2,143	2,703
Total	**34,097**	**32,162**

The maturities of financial liabilities according to the expected nominal repayment amount, as defined by contract, are the following:

Details of the maturities of financial liabilities – at nominal repayment amount:

	maturing by 12/31 of the year:						
(million euros)	**2022**	**2023**	**2024**	**2025**	**2026**	**After 2026**	**Total**
Bonds	3,098	2,446	3,324	2,000	1,750	7,720	20,338
Loans and other financial liabilities	784	712	977	1,075	1,570	159	5,277
Financial lease liabilities	616	557	587	473	453	1,995	4,681
Total	**4,498**	**3,715**	**4,888**	**3,548**	**3,773**	**9,874**	**30,296**
Current financial liabilities	1,536	—	—	—	—	—	1,536
Total	**6,034**	**3,715**	**4,888**	**3,548**	**3,773**	**9,874**	**31,832**

The main components of financial liabilities are commented below.

Bonds are broken down as follows:

(million euros)	12/31/2021	12/31/2020
Non-current portion	17,383	16,898
Current portion	1,514	982
Total carrying amount	**18,897**	**17,880**
Fair value adjustment and measurements at amortized cost	(559)	(631)
Total nominal repayment amount	**18,338**	**17,249**

Convertible bonds consist of the unsecured equity-linked bond for 2,000 million euros, with a coupon of 1.125%, issued by TIM S.p.A., convertible into newly-issued ordinary shares, maturing in 2022. This item was broken down as follows:

(million euros)	12/31/2021	12/31/2020
Non-current portion	—	1,958
Current portion	1,998	6
Total carrying amount	**1,998**	**1,964**
Fair value adjustment and measurements at amortized cost	2	36
Total nominal repayment amount	**2,000**	**2,000**

The nominal repayment amount of bonds and convertible bonds totaled 20,338 million euros, up by 1,089 million euros compared to December 31, 2020 (19,249 million euros) as a result of new issues, repayments and the exchange effect in 2021.

The change in bonds during 2021 was as follows:

New issues

(millions of original currency)	Currency	Amount	Issue date
New issues			
Telecom Italia S.p.A. 1,000 million euros 1.625%	Euro	1,000	1/18/2021
TIM S.A. 1,600 million BRL IPCA+4.1682%	BRL	1,600	6/15/2021

On January 18, 2021, TIM issued its first 8-year Sustainability Bond for an amount of 1 billion euros, coupon 1.625%.

Repayments

(millions of original currency)	Currency	Amount	Repayment date
Repayments			
Telecom Italia S.p.A. 564 million euros 4.500% (1)	Euro	564	1/25/2021

(1) Net of buy-backs totaling 436 million euros made by the company in 2015.

Note that on December 31, 2021, the "Telecom Italia S.p.A. 2002-2022 Floating Rate bonds, Open Special series, reserved for subscription by employees of the Telecom Italia Group, in service or retired" bond was closed and the bonds fully repaid starting January 1, 2022, in accordance with the relevant Regulation.

The following table lists the bonds issued by companies of the TIM Group, by issuing company, expressed at the nominal repayment amount, net of bond repurchases, and also at market value:

Currency	Total (millions)	Nominal repayment amount (million euros)	Coupon	Issue date	Maturity date	Issue price (%)	Market price at 12/31/2021 (%)	Market value at 12/31/2021 (million euros)
Bonds issued by TIM S.p.A.								
Euro	(a) 213.5	214	6 month Euribor (base	1/01/2002	1/01/2022	100	100	214
Euro	883.9	884	5.250%	2/10/2010	2/10/2022	99.295	100.692	890
Euro	(b) 2,000	2,000	1.125%	3/26/2015	3/26/2022	100	100.135	2,003
Euro	1,000	1,000	3.250%	1/16/2015	1/16/2023	99.446	103.037	1,031
GBP	375	446	5.875%	5/19/2006	5/19/2023	99.622	104.491	466
Euro	1,000	1,000	2.500%	1/19/2017	7/19/2023	99.288	102.507	1,025
Euro	750	750	3.625%	1/20/2016	1/19/2024	99.632	104.032	780
Euro	1,250	1,250	4.000%	1/11/2019	4/11/2024	99.436	104.961	1,312
USD	1,500	1324	5.303%	5/30/2014	5/30/2024	100	105.321	1,395
Euro	1,000	1,000	2.750%	4/15/2019	4/15/2025	99.320	102.491	1,025
Euro	1,000	1,000	3.000%	9/30/2016	9/30/2025	99.806	103.084	1,031
Euro	750	750	2.875%	6/28/2018	1/28/2026	100	102.431	768
Euro	1,000	1,000	3.625%	5/25/2016	5/25/2026	100	105.519	1,055
Euro	1,250	1,250	2.375%	10/12/2017	10/12/2027	99.185	98.860	1,236
Euro	1,000	1,000	1.625%	1/18/2021	1/18/2029	99.074	92.023	920
Euro	670	670	5.250%	3/17/2005	3/17/1955	99.667	106.021	710
Subtotal		**15,538**						**15,861**
Bonds issued by Telecom Italia Finance S.A. and guaranteed by TIM S.p.A.								
Euro	1,015	1,015	7.750%	1/24/2003	1/24/2033	(c) 109.646	133.488	1,355
Subtotal		**1,015**						**1,355**
Bonds issued by Telecom Italia Capital S.A. and guaranteed by TIM S.p.A.								
USD	1,000	883	6.375%	10/29/2003	11/15/2033	99.558	108.519	958
USD	1,000	883	6.000%	10/06/2004	9/30/2034	99.081	105.270	929
USD	1,000	883	7.200%	7/18/2006	7/18/2036	99.440	114.336	1,010
USD	1,000	883	7.721%	6/04/2008	6/04/2038	100	118.017	1,042
Subtotal		**3,532**						**3,939**
Bonds issued by TIM S.A.								
BRL	1,600	253	IPCA+4.1682%	6/15/2021	6/15/2028	100	100	253
Subtotal		**253**						**253**
Total		**20,338**						**21,408**

(a) Reserved for employees.
(b) Bond convertible into newly-issued TIM S.p.A. ordinary treasury shares.
(c) Weighted average issue price for bonds issued with multiple tranches.

The regulations and the Offering Circulars relating to the bonds of the TIM Group are available on the corporate website gruppotim.it.

Medium/long-term amounts **due to banks** totaled 4,394 million euros (2,772 million euros at December 31, 2020). Short-term amounts due to banks totaled 2,099 million euros (2,506 million euros at December 31, 2020) and included 786 million euros of the current portion of medium/long-term amounts due to banks.

On December 23, 2021, the subsidiary FiberCop S.p.A. signed a new 5-year Term Loan for an amount of 1.5 billion euros with a pool of international banks, fully drawn down.

The other medium/long-term **financial payables** totaled 306 million euros (185 million euros at December 31, 2020), 151 million euros of which refer to the Telecom Italia Finance S.A. loan for JPY 20,000 million, maturing in 2029. Short-term other financial payables amounted to 236 million euros (119 million euros at December 31, 2020) and included 15 million euros of the current portion of medium/long-term other financial payables.

Medium/long-term **finance lease liabilities** amounted to 4,064 million euros (4,199 million euros at December 31, 2020), whilst short-term lease liabilities totaled 651 million euros (631 million euros at December 31, 2020) and included 648 million euros in the current portion of medium/long-term finance lease liabilities.

With reference to the financial lease liabilities recognized in 2021 and 2020, the following is noted:

(million euros)	12/31/2021	12/31/2020
Principal reimbursements	604	699
Cash out interest portion	263	256
Total	**867**	**955**

Hedging derivatives relating to items classified as non-current financial liabilities amount to 1,337 million euros (1,832 million euros at December 31, 2020). Hedging derivatives relating to items classified as current liabilities of a financial nature totaled 62 million euros (62 million euros at December 31, 2020).

Non-hedging derivatives classified as non-current financial liabilities came to 17 million euros (10 million euros at December 31, 2020), while non-hedging derivatives classified under current financial liabilities amounted to 36 million euros (2 million euros at December 31, 2020). These also include the measurement of derivatives which, although put into place for hedging purposes, do not meet the formal requirements to be considered as such under IFRS.

Covenants and negative pledges in place at 12/31/2021

Bonds issued by the TIM Group do not contain financial covenants (e.g. ratios such as Debt/EBITDA, EBITDA/Interest, etc.) or clauses that result in the automatic early redemption of the bonds in relation to events other than the insolvency of the TIM Group[1]; furthermore, the repayment of the bonds and the payment of interest are not covered by specific guarantees nor are there commitments provided relative to the assumption of future guarantees, except for the full and unconditional guarantees provided by TIM S.p.A. for the bonds issued by Telecom Italia Finance S.A. and Telecom Italia Capital S.A..

Since the bonds were placed principally with institutional investors in major world capital markets (Euromarket and the U.S.A.), the terms which regulate the bonds are in line with market practice for similar transactions effected on these same markets. Consequently, they carry negative pledges, such as, for example, the commitment not to pledge the company's assets as collateral for loans.

Regarding loans taken out by TIM S.p.A. from the European Investment Bank (EIB), on May 19, 2021, TIM entered into a new loan for an amount of 230 million euros, in support of projects to digitize the country. In addition, it has extended the loan signed in 2019 for an amount of 120 million euros. Therefore, at December 31, 2021 the nominal total of outstanding loans with the EIB was 1,200 million euros, all drawn down and not backed by bank guarantee.

The three EIB loans signed on December 14, 2015, November 25, 2019 and May 19, 2021 contain the following covenants:

- in the event the company becomes the target of a merger, demerger or conferral of a business segment outside the Group, or sells, disposes of or transfers assets or business segments (except in certain cases, expressly provided for), it shall immediately inform the EIB which shall have the right to ask for guarantees to be provided or changes to be made to the loan contract, or, only for certain loan contracts, the EIB shall have the option to demand the immediate repayment of the loan (should the merger, demerger or conferral of a business segment outside the Group compromise the Project execution or cause a prejudice to EIB in its capacity as creditor);
- TIM undertook to ensure that, for the entire duration of the loan, the total financial debt of the Group companies other than TIM S.p.A. – except for the cases when that debt is fully and irrevocably secured by TIM S.p.A. – is lower than 35% (thirty-five percent) of the Group's total financial debt;
- "Inclusion clause", under which, in the event TIM commits to uphold financial covenants in other loan contracts (and even more restrictive clauses, including, for instance, cross default clauses and commitments restricting the sale of goods) that are not present in or are stricter than those granted to the EIB, the EIB will have the right – if, in its reasonable opinion, it considers that such changes may have a negative impact on TIM's financial capacity – to request the provision of guarantees or an amendment of the loan contract in order to establish an equivalent provision in favor of the EIB;
- "Network Event", under which, in the event of the disposal of the entire fixed network or of a substantial part of it (in any case, more than half in quantitative terms) to third parties not controlled by the Company, or in the event of disposal of the controlling interest in the company in which the network or a substantial part of it has previously been transferred, TIM must immediately inform the EIB, which may then opt to demand collateral or an amendment of the loan contract or choose an alternative solution.

The loan agreements of TIM S.p.A. do not contain financial covenants (e.g. ratios such as Debt/EBITDA, EBITDA/Interest, etc.) which would oblige the Company to repay the outstanding loan if the covenants are not observed.

The loan agreements contain the usual other types of covenants, including the commitment not to pledge the Company's assets as collateral for loans (negative pledge) and the commitment not to change the business purpose or sell the assets of the Company unless specific conditions exist (e.g. the sale takes place at fair market value). Covenants with basically the same content can be found in the export credit loan agreement.

In the Loan Agreements and the Bonds, TIM is required to provide notification of change of control. Identification of the occurrence of a change of control and the applicable consequences – including, at the discretion of the investors, the establishment of guarantees or the early repayment of the amount paid in cash or as shares and the cancellation of the commitment in the absence of agreements to the contrary – are specifically covered in the individual agreements.

In addition, the outstanding loans generally contain a commitment by TIM, whose breach is an Event of Default, not to implement mergers, demergers or conferrals of business, involving entities outside the Group.

[1] A change of control event can result in the early repayment of the convertible bond of TIM S.p.A., as further detailed below.

Such an Event of Default may entail, upon request of the Lender, the early redemption of the drawn amounts and/or the annulment of the undrawn commitment.

The documentation of the loans granted to certain companies of the TIM Group contain general obligations to comply with certain financial ratios (e.g. capitalization ratios, debt servicing ratios and debt ratios), as well as the usual other covenants, under penalty of a request for the early repayment of the loan.

Finally, as at December 31, 2021, no covenant, negative pledge or other clause relating to the aforementioned debt position had in any way been breached or violated.

Revolving Credit Facility

The following table shows committed credit lines available at December 31, 2021:

(billion euros)	12/31/2021		12/31/2020	
	Agreed	Drawn down	Agreed	Drawn down
Sustainability-linked RCF - maturing May 2026	4.0	—	—	—
Revolving Credit Facility – maturing January 2023	—	—	5.0	—
Bridge to Bond Facility – maturing May 2021	—	—	1.7	—
Total	**4.0**	—	**6.7**	**—**

At December 31, 2021, TIM had bilateral Term Loans for 850 million euros with various banking counterparties and an overdraft facility for 200 million euros, drawn down for the full amount.

On January 19, 2021, TIM entirely canceled the credit line for 1.7 billion euros, which was not used, stipulated on May 18, 2020 as bridge to bond for subsequent issues on the bond market and an initial maturity of 12 months with an option of extension for another 12 months.

On May 13, 2021, TIM extended the Revolving Credit Facility by 5 years, reducing the amount to 4 billion euros and making it the Group's first ever ESG-linked credit facility.

On December 23, 2021, the subsidiary FiberCop S.p.A. signed a new 5-year Term Loan for an amount of 1.5 billion euros with a pool of international banks, fully drawn down.

TIM's rating at December 31, 2021

At December 31, 2021, the three rating agencies – Standard & Poor's, Moody's and Fitch Ratings – rated TIM as follows:

	Rating	**Outlook**
STANDARD & POOR'S	BB	Stable
MOODY'S	Ba2	Negative
FITCH RATINGS	BB+	Stable

On March 08, 2022, the ratings agency Moody's modified the rating from Ba2 to Ba3, confirming the outlook relative to its opinion on TIM as "Negative".

NOTE 16
NET FINANCIAL DEBT

The table below shows the breakdown of net financial debt of the TIM Group at December 31, 2021 and December 31, 2020, determined in accordance with the provisions of the "*Guidelines on disclosure requirements under the Prospectus Regulation*" issued by the ESMA (European Securities & Markets Authority) on March 4, 2021 (ESMA32-382-1138) and incorporated by Consob with its Note of Attention no. 5/21 dated April 29, 2021.
This table also shows the reconciliation of the net financial debt determined according to the aforementioned criteria indicated by the ESMA and net financial debt calculated according to the criteria of the TIM Group.

(million euros)		12/31/2021	12/31/2020
Liquid assets with banks, financial institutions and post offices	(a)	6,092	4,433
Other cash and cash equivalents	(b)	812	396
Securities other than investments	(c)	2,249	1,092
Liquidity	**(d=a+b+c)**	**9,153**	**5,921**
Current financial debt (including debt instruments, but excluding the current portion of non-current financial debt)	(e)	1,538	1,151
Current portion of non-current financial debt	(f)	4,937	3,010
Current financial debt	**(g=e+f)**	**6,475**	**4,161**
Net current financial debt	**(h=g-d)**	**(2,678)**	**(1,760)**
Non-current financial debt (excluding the current part and debt instruments)	(i)	8,083	6,984
Debt instruments	(j)	17,383	18,856
Trade payables and other non-current debt (**)	(k)	81	1,791
Non-current financial debt	**(l=i+j+k)**	**25,547**	**27,631**
Total net financial debt as per ESMA guidelines 32-382-1138	**(m=h+l)**	**22,869**	**25,871**
Trade payables and other non-current debt (**)		(81)	(1,791)
Non-current financial receivables arising from lease contracts		(45)	(43)
Current financial receivables arising from lease contracts		(56)	(55)
Financial receivables and other current financial assets		(21)	(15)
Other financial receivables and other non-current financial assets		(250)	(253)
Financial assets/liabilities relating to discontinued operations/non-current assets held for sale		—	—
Subtotal	**(n)**	**(453)**	**(2,157)**
Net financial debt carrying amount (*)	**(p=m+n)**	**22,416**	**23,714**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	(q)	(229)	(388)
Adjusted Net Financial Debt	**(r=p+q)**	**22,187**	**23,326**

(*) As regards the effects of related-party transactions on net financial debt, reference should be made to the specific table included in the Note "Related-party transactions".

(**) The value at 12/31/2021 mainly includes the payables of the Brazil Business Unit for the purchase and renewal of telecommunications licenses (72 million euros), also including the payable due to Entidade Administradora da Conectividade de Escolas (EACE) for the development of certain infrastructural projects in Brazil in connection with the assignment of the rights of use of frequencies for 5G services. The figure at 12/31/2020 includes the residual payable relating to the acquisition of the rights-of-use for the 5G licenses in Italy, of 1,738 million euros; at 12/31/2021, the amount was reclassified to Miscellaneous payables and other current liabilities following the expiry scheduled for 2022.

Additional cash flow information required by IAS 7

(million euros)		12/31/2020	Cash movements		Non-cash movements			12/31/2021
			Receipts and/or issues	Payments and/or reimbursements	Exchange differences	Fair value changes	Other changes and reclassifications	
Financial payables (medium/long-term):								
Bonds		17,880	1,251	(564)	405	(79)	4	18,897
Convertible bonds		1,964					34	1,998
Payables to banks		4,242	2,830	(1,895)	20		(17)	5,180
Other financial payables		192	1	(9)	(4)		141	321
	(a)	**24,278**	**4,082**	**(2,468)**	**421**	**(79)**	**162**	**26,396**
of which short-term		*2,465*						*4,313*
Medium/long-term finance lease liabilities:		**4,827**	**225**	**(604)**	**15**		**249**	**4,712**
	(b)	**4,827**	**225**	**(604)**	**15**	**—**	**249**	**4,712**
of which short-term		*628*						*648*
Other medium/long-term financial liabilities:								
Hedging derivative liabilities relating to hedged items classified as non-current assets/liabilities of a financial nature		1,894			(97)	(398)		1,399
Non-hedging derivative liabilities		12			(3)	41	2	52
Other liabilities		—						—
	(c)	**1,906**	**—**	**—**	**(100)**	**(357)**	**2**	**1,451**
of which short-term		*64*						*97*
Short-term financial payables:								
Amounts due to banks		1,036					277	1,313
Other financial payables		115			1		109	225
	(d)	**1,151**	**—**	**—**	**1**	**—**	**386**	**1,538**
Financial liabilities directly associated with Discontinued operations/Non-current assets held for sale:		—						—
	(e)	—	—	—	—	—	—	—
Total Financial liabilities (Gross financial debt)								
	(f=a+b+c+d+e)	**32,162**	**4,307**	**(3,072)**	**337**	**(436)**	**799**	**34,097**
Hedging derivative receivables relating to hedged items classified as current and non-current assets/liabilities of a financial nature	(g)	2,067			301	(340)	(13)	2,015
Non-hedging derivative receivables	(h)	94			(46)	63	30	141
Total	**(i=f-g-h)**	**30,001**	**4,307**	**(3,072)**	**82**	**(159)**	**782**	**31,941**

The value of the paid and collected interest expense reported in the Report on Operations takes into account the movements relating to transactions in CCIRS derivatives to hedge underlying assets in both the assets component (collections) and the liabilities component (payments) without netting the positions.

(million euros)	2021	2020
Interest expense paid	(1,440)	(1,520)
Interest income received	437	448
Net total	**(1,003)**	**(1,072)**

To consider the components of CCIRS derivatives as a single transaction, a representation is given with interest flows in and out shown net. This approach gives the following results:

(million euros)	2021	2020
Interest expense paid	(1,104)	(1,209)
Interest income received	101	137
Net total	**(1,003)**	**(1,072)**

NOTE 17
FINANCIAL RISK MANAGEMENT

Financial risk management objectives and policies of the TIM Group

The TIM Group is exposed to the following financial risks in the ordinary course of its business operations:

- Market risk: stemming from changes in interest rates and exchange rates in connection with financial assets that have been originated and financial liabilities that have been assumed;
- Credit risk: representing the risk of non-fulfillment of obligations undertaken by the counterparty with regard to the liquidity investments of the Group;
- Liquidity risk: connected with the need to meet short-term financial commitments.

These financial risks are managed by:

- the establishment, at central level, of guidelines for directing operations;
- the work of an internal committee that monitors the level of exposure to market risks in accordance with pre-established general objectives;
- the identification of the most suitable financial instruments, including derivatives, to reach pre-established objectives;
- the monitoring of the results achieved;
- the exclusion of the use of financial instruments for speculative purposes.

The policies for the management and the sensitivity analyses of the above financial risks by the TIM Group are described below.

Identification of risks and analysis

The TIM Group is exposed to market risks, as a result of changes in interest rates and exchange rates, in the markets in which it operates or has bond issues, mainly in Europe, the United States, Great Britain and Latin America.

The financial risk management policies of the TIM Group are directed towards diversifying market risks, hedging exchange rate risk in full and minimizing interest rate exposure by an appropriate diversification of the portfolio, which is also achieved by using carefully selected derivative financial instruments.

The Group defines an optimum composition of its debt structure by balancing fixed and variable-rates and uses derivative financial instruments to achieve that debt composition. In consideration of the Group's operating activities, the optimum combination of medium/long-term non-current financial liabilities has been identified, on the basis of the nominal amount, in the 65%-85% range for the fixed-rate component and in the 15%-35% range for the variable-rate component.

In managing market risk, the Group has adopted Guidelines on "Management and control of financial risk" and mainly uses the following financial derivatives:

- Interest Rate Swaps (IRS), to modify the profile of the original exposure to interest rate risks on loans and bonds, both fixed and variable;
- Cross Currency and Interest Rate Swaps (CCIRS) and Currency Forwards, to convert loans and bonds issued in currencies other than euro – principally in US dollars and British pounds – to the functional currencies of the operating companies.

Derivative financial instruments are designated as fair value hedges for managing exchange rate and interest rate risks on instruments denominated in currencies other than euro and for managing interest rate risk on fixed-rate loans. Derivative financial instruments are designated as cash flow hedges when the objective is to pre-set the exchange rate of future transactions and the interest rate.

All derivative financial instruments are entered into with banking and financial counterparties with at least a “BBB-” rating from Standard & Poor’s or an equivalent rating and a non-negative outlook. The exposure to the various market risks can be measured by sensitivity analyses, as set forth in IFRS 7. This analysis illustrates the effects produced by a given and assumed change in the levels of the relevant variables in the various reference markets (exchange rates, interest rates and prices) on finance income and expenses and, at times, directly on equity. The sensitivity analysis was performed based on the suppositions and assumptions indicated below:

- sensitivity analyses were performed by applying reasonably likely changes in the relevant risk variables to the amounts in the consolidated financial statements at December 31, 2021;
- changes in value of fixed-rate financial instruments, other than derivatives, produced by changes in the reference interest rates, generate an impact on profit only when, in accordance with IAS 39 and IFRS 9, they are accounted for at their fair value through profit and loss. All fixed-rate instruments, which are accounted for at amortized cost, are not subject to interest rate risk as defined by IFRS 7;
- in the case of fair value hedge relationships, fair value changes of the underlying hedged item and of the derivative instrument, due to changes in the reference interest rates, offset each other almost entirely in

the income statement for the year. As a result, these financial instruments are not exposed to the interest rate risk;

- changes in the value of designated financial instruments in a cash flow hedge relationship, produced by changes in interest rates, generate an impact on the debt level and on equity; accordingly, they are included in this analysis;
- the changes in value, produced by changes in the reference interest rates, of variable-rate financial instruments, other than derivatives, which are not part of a cash flow hedge relationship, generate an impact on the finance income and expenses for the year; accordingly they are included in this analysis.

Exchange rate risk – Sensitivity analysis

At December 31, 2021 (and also at December 31, 2020), the exchange rate risk of the Group's loans denominated in currencies other than the functional currency of the consolidated financial statements was hedged in full. Accordingly, a sensitivity analysis was not performed on the exchange rate risk.

Interest rate risk – Sensitivity analysis

The change in interest rates on the variable component of payables and liquidity may lead to higher or lower finance income and expenses, while changes in the level of the expected interest rate affect the fair value measurement of the Group's derivatives. In particular:

- with regard to derivatives that convert the liabilities contracted by the Group to fixed rates (cash flow hedging), in line with international accounting standards that regulate hedge accounting, the fair value (mark-to-market) measurement of such instruments is set aside in a specific unavailable Equity reserve. The combined change of the numerous market variables to which the mark-to-market calculation is subject between the transaction inception date and the measurement date renders any assumption about the trend of the variables of little significance. As the contract expiration date approaches, the accounting effects described will gradually be absorbed until they cease to exist;
- if at December 31, 2021 the interest rates in the various markets in which the TIM Group operates had been 100 basis points higher/lower compared to the actual rates, then higher/(lower) finance expenses, before the income tax effect, would have been recognized in the consolidated income statement of -18 million euros (36 million euros at December 31, 2020).

Refer to Note "Accounting Policies" for the potential risk generated by the reform of benchmark interest rates.

Allocation of the financial structure between fixed rate and variable rate

As for the allocation of the financial structure between the fixed-rate component and the variable-rate component, for both financial assets and liabilities, reference should be made to the following tables. These tables have been prepared by taking into account the nominal repayment/investment amount (since that amount expresses the effective interest rate exposure of the Group) and, as far as financial assets are concerned, the intrinsic nature (financial characteristics and duration) of the transactions under consideration rather than the stated contractual terms alone. Bearing that in mind, a transaction whose characteristics (short or very short time frame and frequent renewal) are such that the interest rate is periodically reset on the basis of market parameters, even though the contract does not call for re-fixing the interest rate (as in the case of bank deposits), has been considered in the variable rate category.

Total Financial liabilities (at the nominal repayment amount)

(million euros)	12/31/2021			12/31/2020		
	Fixed Rate	Variable Rate	Total	Fixed Rate	Variable Rate	Total
Bonds	19,571	767	20,338	14,698	4,551	19,249
Loans and other financial liabilities	5,012	4,946	9,958	5,402	3,836	9,238
Total non-current financial liabilities (including the current portion of medium/long-term financial liabilities)	**24,583**	**5,713**	**30,296**	**20,100**	**8,387**	**28,487**
Total current financial liabilities	**1,264**	**272**	**1,536**	**602**	**546**	**1,148**
Total	**25,847**	**5,985**	**31,832**	**20,702**	**8,933**	**29,635**

Total Financial assets (at the nominal investment amount)

(million euros)	12/31/2021			12/31/2020		
	Fixed Rate	Variable Rate	Total	Fixed Rate	Variable Rate	Total
Cash and cash equivalents	—	6,092	6,092	—	4,433	4,433
Titles	1,421	1,616	3,037	638	837	1,475
Other receivables	1,008	51	1,059	747	54	801
Total	**2,429**	**7,759**	**10,188**	**1,385**	**5,324**	**6,709**

With regard to variable-rate financial instruments, the contracts provide for revisions of the relative parameters to take place within the subsequent 12 months.

Effective interest rate

As to the effective interest rate, for the categories where that parameter can be determined, such parameter refers to the original transaction net of the effect of any derivative hedging instruments.

The disclosure, which is provided by class of financial asset and liability, has been determined, for purposes of calculating the weighted average, using the carrying amount adjusted by accruals, prepayments, deferrals and fair value adjustments: this is therefore the amortized cost, net of accruals and any changes in fair value, as a consequence of hedge accounting.

Total Financial liabilities

(million euros)	12/31/2021		12/31/2020	
	Adjusted carrying amount	Effective interest rate (%)	Adjusted carrying amount	Effective interest rate (%)
Bonds	20,249	4.32	19,117	4.47
Loans and other financial liabilities	11,705	3.21	10,341	3.54
Total	**31,954**	**3.91**	**29,458**	**4.14**

Total Financial assets

(million euros)	12/31/2021		12/31/2020	
	Adjusted carrying amount	Effective interest rate (%)	Adjusted carrying amount	Effective interest rate (%)
Cash and cash equivalents	6,092	0.00	4,433	0.01
Titles	3,037	1.08	1,475	0.36
Other receivables	364	3.40	362	1.25
Total	**9,493**	**0.47**	**6,270**	**0.16**

As for financial assets, the weighted average effective interest rate is not essentially influenced by the existence of derivatives.

As for market risk management using derivatives, reference should be made to the Note "Derivatives".

Credit risk

Exposure to credit risk for the TIM Group consists of possible losses that could arise from the failure of either commercial or financial counterparties to fulfill their assumed obligations. To measure this risk over time for impairment of financial assets (trade receivables due from customers included), the introduction of IFRS 9 required switching from the incurred loss model pursuant to IAS 39 to the expected credit loss model.

Such exposure mainly stems from general economic and financial factors, the potential occurrence of specific insolvency situations of some borrowers and other more strictly technical-commercial or administrative factors.

TIM Group's maximum theoretical exposure to credit risk is represented by the carrying amount of the financial assets and trade receivables recorded in the financial statements, excluding guarantees received, described in the Note "Disputes and pending legal actions, other information, commitments and guarantees".

Risk related to trade receivables is managed using customer scoring and analysis systems. For specific categories of trade receivables, the Group also makes use of factoring, mainly on a "non-recourse" basis.

Provision charges for bad debts are recorded for specific credit positions that have an element of individual risk. On credit positions that do not have such characteristics, provision charges are recorded by customer segment according to the average uncollectibility estimated on the basis of statistics. Further details are provided in the Note "Trade and miscellaneous receivables and other current assets".

Financial assets other than trade receivables are written down for impairment on the basis of a general model which recognizes expected credit losses over the following 12 months, or over the residual life of the asset in the event of a substantial worsening of its credit risk. The expected credit loss is calculated based on the default probability and the percentage of credit that cannot be recovered in the event of a default (the loss given default).

The model adopted to calculate the expected credit loss is based on the Bloomberg Credit Risk Model, a model developed by Bloomberg which, starting from Merton's distance-to-default ("DD") concept, estimates the probability of default together with the recovery rate. At the same time, the loss given default is defined as the non-recoverable component of the post-default financial asset.

In particular, the DD - based on balance sheet data - is enriched with a series of additional information by country (macroeconomic, risk), business sector and individual company, as well as accounting adjustments aimed at ensuring uniformity of the model's outputs; finally, through a non-linear function of the DD, the default probability is obtained.

As regards the current COVID-19 pandemic, use of the Bloomberg Credit Risk Model, which, as mentioned, also takes into account the political and economic situation of the various countries in the short and medium/long-term (from 3 months to 5 years), ensures that all risk components are adequately reflected in the measurement of the credit risk.

In order to improve credit risk and reduce pressure on working capital, in February 2020, the corporate joint venture TIM-SCB JV S.p.A. was established, with an investment of 51% by Santander Consumer Bank (SCB) and 49% by TIM. The partnership with SCB aims to develop and distribute financial products to finance the purchase by TIM customers of products relative to the world of telecommunications and the transfer without recourse of trade receivables.

On November 3, 2020, the new corporate entity received authorization from the Bank of Italy to grant loans to the public in accordance with Article 106 et seq. of the Consolidated Banking Act (TUB). In the last few months of 2020 and early 2021, various corporate steps were completed, including the change in the company name from TIM-SCB JV S.p.A. to TIMFin S.p.A..

TIMFin started operating on February 1, 2021 and over the following months progressively expanded its areas of operation, completing coverage of the TIM physical sales points at the service of consumer customers.

Moreover, as regards credit risk relating to the asset components which contribute to the determination of "Net financial debt", it should be noted that the management of the Group's liquidity is guided by conservative criteria and is principally based on the following:

- Money market management: the investment of temporary excess cash resources;
- Bond portfolio management: the investment of medium-term liquidity, as well as the improvement of the average yield of the assets.

In order to mitigate the risk of the non-fulfillment of the obligations undertaken by the counterparty, deposits of the European companies are made with leading banking and financial institutions rated no lower than investment grade and with a non-negative outlook, and investments by the companies in South America are made with leading local counterparties. Moreover, deposits are made generally for periods of less than three months. With regard to other temporary investments of liquidity, there is a bond portfolio in which the investments have a low risk level. All investments have been carried out in compliance with the Group Guidelines on "Management and control of financial risk".

In order to minimize credit risk, the Group also pursues a diversification policy for its investments of liquidity and allocation of its credit positions among different banking counterparties. Consequently, there are no significant positions with any one single counterparty.

Liquidity risk

The Group pursues the objective of achieving an "adequate level of financial flexibility", which is expressed by maintaining a current treasury margin to cover the refinancing requirements at least for the next 12 months with irrevocable bank lines and liquidity.

At December 31, 2021, the liquidity margin available for the TIM Group is 13,153 million euros, with an increase of 532 million euros with respect to end 2020 (12,621 million euros). The impact of the COVID-19 pandemic has not, therefore, entailed any liquidity risk. Moreover, on January 18, 2021, TIM S.p.A. issued its first 8-year Sustainability Bond for an amount of 1 billion euros, coupon 1.625%.

19% of gross financial debt at December 31, 2021 (nominal repayment amount) will become due in the next 12 months.

Current financial assets at December 31, 2021, together with unused committed bank lines, are sufficient to fully cover the Group's financial liabilities due for the next 36 months.

The following tables report the contractual cash flows, not discounted to present value, relative to gross financial debt at nominal repayment amounts and the interest flows, determined using the terms and the interest and exchange rates in place at December 31, 2021. The portions of principal and interest of the hedged liabilities includes both the disbursements and the receipts of the relative hedging derivatives. Specifically, the interest portions of "Loans and other financial liabilities" also include those relating to derivatives hedging for both loans and bonds.

Financial liabilities – Maturities of contractually expected disbursements

(million euros)		maturing by 12/31 of the year: 2022	2023	2024	2025	2026	After 2026	Total
Bonds	Principal	3,098	2,446	3,324	2,000	1,750	7,720	20,338
	Interest portion	810	749	626	515	444	3,717	6,861
Loans and other financial liabilities (*)	Principal	784	712	977	1,075	1,570	159	5,277
	Interest portion	(3)	(10)	(16)	(9)	(22)	(478)	(538)
Financial lease liabilities	Principal	616	557	587	473	453	1,995	4,681
	Interest portion	155	141	126	109	93	319	943
Non-current financial liabilities	**Principal**	**4,498**	**3,715**	**4,888**	**3,548**	**3,773**	**9,874**	**30,296**
	Interest portion	**962**	**880**	**736**	**615**	**515**	**3,558**	**7,266**
Current financial liabilities	**Principal**	**1,536**	**—**	**—**	**—**	**—**	**—**	**1,536**
	Interest portion	**4**	**—**	**—**	**—**	**—**	**—**	**4**
Total	**Principal**	**6,034**	**3,715**	**4,888**	**3,548**	**3,773**	**9,874**	**31,832**
	Interest portion	**966**	**880**	**736**	**615**	**515**	**3,558**	**7,270**

(*) These include hedging and non-hedging derivatives.

Derivatives on financial liabilities – Contractually expected interest flows

(million euros)	maturing by 12/31 of the year: 2022	2023	2024	2025	2026	After 2026	Total
Disbursements	256	250	198	175	175	1,423	2,477
Receipts	(357)	(347)	(272)	(232)	(232)	(1,998)	(3,438)
Hedging derivatives – net (receipts) disbursements	**(101)**	**(97)**	**(74)**	**(57)**	**(57)**	**(575)**	**(961)**
Disbursements	140	59	145	46	122	—	512
Receipts	(105)	(30)	(124)	(27)	(109)	—	(395)
Non-Hedging derivatives – net (receipts) disbursements	**35**	**29**	**21**	**19**	**13**	**—**	**117**
Total net receipts (disbursements)	**(66)**	**(68)**	**(53)**	**(38)**	**(44)**	**(575)**	**(844)**

Market value of derivatives

In order to determine the fair value of derivatives, the TIM Group uses various valuation models.

The mark-to-market calculation is determined by the present value discounting of the interest and notional future contractual flows using market interest rates and exchange rates.

The notional amount of IRS does not represent the amount exchanged between the parties and, therefore, is not a measurement of credit risk exposure, which, instead, is limited to the amount of the difference between the interest rates paid/received.

The market value of CCIRSs, on the other hand, also depends on the differential between the reference exchange rate at the date of signing the contract and the exchange rate at the date of measurement, since CCIRSs involve the exchange of the reference interest and principal, in the respective denomination currencies.

Options are measured according to the Black & Scholes or Binomial models and involve the use of various measurements factors, such as: the lifetime horizon of the option, the risk-free rate of return, current price, volatility and any cash flows (e.g. dividend) of the underlying financial instrument, and the exercise price.

NOTE 18
DERIVATIVES

For hedge accounting we continued to apply the rules established by IAS 39.

Derivative financial instruments are used by the TIM Group to hedge its exposure to foreign exchange rate risks, to manage interest rate risk and to diversify the parameters of debt so that costs and volatility can be reduced to within predetermined operational limits.

Derivative financial instruments existing at December 31, 2021 are principally used to manage debt positions. They include interest rate swaps (IRSs) used to reduce the interest rate exposure of fixed-rate bank loans and bonds, as well as cross currency and interest rate swaps (CCIRSs), currency forwards and foreign exchange options to convert the loans/receivables secured in currencies different from the functional currencies of the various Group companies.

IRS transactions, provide for or may entail, at specified maturity dates, the exchange of flows of interest, calculated on the notional amount, at the agreed fixed or variable rates.

The same also applies to CCIRS transactions which, in addition to the settlement of periodic interest flows, may provide for the exchange of principal, in the respective currencies of denomination, at maturity and possibly spot.

Hedging: economic relationship between underlying instrument and derivatives

Hedging relationships recorded in hedge accounting at 12/31/2021 belong to two categories: i) hedging of the fair value of bond issues denominated in euros and ii) hedging of cash flows from income flows of bond issues and future trade items denominated in currencies other than the Euro.
In the first case, the hedged risk is represented by the fair value of the bond attributable to euro interest rates and is hedged by IRS. The current value of both the underlying and derivative instruments, depends on the structure of the Euro market interest rates at the basis of the calculation of discount factors and floating interest flows of the derivative. In particular, interest rate fluctuations translate as changes in the discount factors of the fixed-interest expense flow on the underlying instrument; on the derivative, changes in the discount factor of interest income will occur, as well as changes in the nominal flow of variable interest (only partially corrected by the discounting effect). The effects induced on the derivative are opposite, in accounting terms, to the effects on the underlying instrument.

In the second case, relating to the bond issues, the hedged risk is represented by the variability in cash flows (and the repayment of the nominal amount) generated by exchange rates; hedging comprises combinations of IRS and CCIRS that synthetically transform fixed rate foreign currency income flows into fixed rate euro flows. In this case, exchange rate fluctuations will usually produce physiologically opposite effects on the underlying instrument and on the derivative, as the receivable leg of the latter faithfully reflects the underlying instrument, while the payable leg is denominated in euros, and is therefore insensitive to the exchange rate. As regards the commercial forecast transactions, the risk hedged is always ascribed to the variability of the cash flow linked to exchange rates, but the hedge is assured through an active deposit denominated in the same currency as the items hedged; the write-backs/write-downs of the deposit in foreign currency generated by oscillations in the exchange rate are structurally the same and opposite to the impacts produced on the underlying items.

Hedges: determination of the hedge ratio

The types of hedging implemented by the Group require the adoption of a hedge ratio equal to 1:1, as the types of risk hedged (interest rate and exchange rate risks) are such as to generate economic effects in the underlying instruments that can only be offset by the same notional quantities of derivative instruments.

Hedges: potential sources of ineffectiveness

The contractualization of derivatives to hedge financial risks takes place at arm's length and aims to completely neutralize the effects produced by such instruments.

However, in practice, both fair value hedges and cash flows hedges, although financially perfect, may not guarantee an absolute accounting effectiveness due to the many counterparty banks involved, to the peculiar nature of certain derivatives in terms, for example, of fixing and/or indexing of variable parameters, and to the possible imperfect coincidence between critical terms.

The first table indicates total financial derivatives of the TIM Group at December 31, 2021 and 2020; in compliance with standard IFRS 7, notional amounts are shown with reference to all the derivative instruments involved in the hedges.

The following tables break down financial derivatives by type of risk for each kind of hedging, separating financial assets and liabilities. For CCIRS, the notional amount refers to the contractual value in euros, for IRS in a currency other than the euro, the value is indicated at the market exchange rate.

Type (million euros)	**Hedged risk**	**Notional amount at 12/31/2021**	**Notional amount at 12/31/2020**	**Mark to Market Spot* (Clean Price) at 12/31/2021**	**Spot Mark-to-Market* (Clean Price) at 12/31/2021**
Interest rate swaps	Interest rate risk	300	4,334	3	192
Cross Currency and Interest Rate Swaps (CCIRS)	Interest rate risk and currency exchange rate risk	—	—	—	—
Total Fair Value Hedge Derivatives		**300**	**4,334**	**3**	**192**
Interest rate swaps	Interest rate risk	4,855	5,594	375	421
Cross Currency and Interest Rate Swaps (CCIRS)	Interest rate risk and currency exchange rate risk	5,195	5,042	173	(519)
Total Cash Flow Hedge Derivatives		**10,050**	**10,636**	**548**	**(98)**
Total Non-Hedge Accounting Derivatives		**2,702**	**604**	**60**	**82**
Total TIM Group's Derivatives		**13,052**	**15,574**	**611**	**176**

* The Spot Mark-to-Market above represents the market valuation of the derivative, net of the accrued portion of the flow in progress.

The positions in non hedge accounting derivatives also include IRS Euros for a total notional amount of 1,834 million euros; specifically, these are fair value hedges of bond loans in euros, issued by TIM S.p.A., which transform the fixed-rate coupon into a variable-rate one. The hedges - classified and booked as fair value hedges starting 2013 - have been retroactively discontinued from June 30, 2021 due to the failure of the prospective efficiency tests carried out at December 31, 2021. The test was failed due to the procedure used for fixing in arrears the variable rate benchmark of the derivatives - defined by contract - which can generate misalignments of fair value between the derivative and the underlying bond loan in the prospective volatility risk reduction test in the approach to the maturity date of the hedge.
It is specified that, although formally classified as non-hedge, these derivatives substantively continue to guarantee the desired profile of financial expenses in connection with the related bonds.
In the same item, the following are also noted:

- the value - equal to a fair value of 15 million euros (liabilities) - of the rights envisaged in the Transaction Agreement in the favor of Teemo Bidco Sarl, as minority shareholder, under the scope of the FiberCop transaction
- the value of the right held by TIM Brasil to subscribe shares of the Brazilian C6 Bank - of 72 million euros - on the basis of a commercial agreement signed by the two companies in March 2020.

Fair value hedges (million euros)	**Accounting item**		**Notional value**	**Carrying amount**	**Change in fair value for the year**
Interest rate swaps	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets.	a)	**300**	**3**	**(190)**
Assets				3	
Liabilities				—	
Cross Currency and Interest Rate Swaps (CCIRS)	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets.	b)	**—**	**—**	**—**
Assets				**—**	
Liabilities				**—**	
Derivative instruments (spot value)		a)+b)	**300**	**3**	**(190)**
Accruals				1	
Derivative instruments (gross value)				**4**	
Underlying instruments (1)	Bonds - Current/non-current liabilities		**300**	**(303)**	
of which fair value adjustment	Fair value adjustment and measurements at amortized cost	c)		(3)	183
Ineffectiveness (2)		a)+b)+c)			(4)
Fair value adjustment for hedging settled in advance (3)				(190)	

(1) Includes the amortized cost value of bonds currently hedged plus the fair value adjustment.
(2) Also considers the year's change in derivatives and underlyings belonging to hedges closed early and discontinued in 2021.
(3) Referred to bonds no longer hedged, which are therefore not presented in the table.

Cash flow hedges (million euros)	**Accounting item**		**Notional value**	**Carrying amount**	**Change in fair value for the year**	**Change in cumulative fair value**
Interest rate swaps	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets.	a)	**4,855**	**375**	**(46)**	
Assets				1,131	(274)	
Liabilities				(756)	228	
Cross Currency and Interest Rate Swaps (CCIRS)	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets.	b)	**5,195**	**173**	**692**	
Assets				755	425	
Liabilities				(582)	267	
Derivative instruments (spot value)		a)+b)	**10,050**	**548**	**646**	
Accruals				65		
Derivative instruments (gross value)				**613**		
of which equity reserve gains and losses					255	
Determination of ineffectiveness						
Change in derivatives		c)				141
Change in underlying instruments [(4)]		d)				(132)
Ineffectiveness [(5)]	Positive fair value adjustment of financial derivatives - non-hedging	c)+d)				13
Equity reserve						
Equity reserve balance				(167)		
of which due to the fair value of hedging settled in advance				—		
Reclassification to P&L	Negative reversal of the reserve for the fair value adjustment of hedging derivatives (cash flow hedges)				—	

(4) Hypothetical derivatives used in measuring the effectiveness of cash flow hedges.
(5) The ineffectiveness, due to its nature and calculation, does not necessarily coincide with the difference in cumulative changes in the fair value of derivatives and the underlying instrument; the effect due to the adoption of CVA/DVA is not considered.

As regards hedging of the forecast transaction - reflected only in the numbers of the equity reserve in the table above - these are future commercial flows for 106 million USD, to be paid in 7 years, hedged by a deposit denominated in the same currency and amount, renewed every three months.

The change in the equity reserve attributable to the effective hedging component is equal to 255 million euros.

Changes in the equity cash flow hedge reserve (million euros)	Balance 12/31/2020	Changes				Balance 12/31/2021
		Hedging instrument gains / losses	Reversal from reclassification	Reversal from fair value adjustment of hedging settled in advance	Other	
	(460)					(460)
Change in the effective fair value of derivatives		255				
Change in the CVA/DVA		19				
Reversal for ineffectiveness 2019			19			
Amortization in P&L of the fair value of hedging settled in advance				—		
Other					—	
Overall change						**(167)**

None of the parameters represented includes any income tax effect.

The transactions hedged by cash flow hedges will generate cash flows and produce economic effects in the income statement in the periods indicated in the following table:

Denomination currency	Notional amount in denomination currency (millions)	Start of period	End of period	Rate applied	Interest period	Hedging of notional amount in euro (millions)	Hedging of rate in euro
GBP	375	Jan-22	May-23	5.875%	Annually	552	5.535%
JPY*	20,000	Jan-22	Oct-29	5.000%	Semiannuall	174	5.940%
JPY**	20,000	Jan-22	Oct-29	0.750%	Semiannuall	138	0.696%
USD	1,000	Jan-22	Nov-33	6.375%	Semiannuall	849	5.994%
USD	1,500	Jan-22	May-24	5.303%	Semiannuall	1,099	4.226%
USD	1,000	Jan-22	Sept-34	6.000%	Semiannuall	794	4.332%
USD	1,000	Jan-22	July-36	7.200%	Semiannuall	791	5.884%
USD	1,000	Jan-22	Jun-38	7.721%	Semiannuall	645	7.470%

* Income cash flows are denominated in USD and calculated on a notional amount of USD 187.6 million.
** Hedging of the sole income cash flow following a step-up on the loan.

The method selected to test the effectiveness retrospectively and, whenever the main terms do not fully coincide, prospectively, for cash flow hedge derivatives and fair value hedge derivatives is the Volatility Risk Reduction (VRR) Test. This test assesses the ratio between the portfolio risk (meaning the derivative and the item hedged) and the risk of the hedged item taken individually. In essence, the portfolio risk must be significantly lower than the risk of the hedged item.

NOTE 19

SUPPLEMENTARY DISCLOSURES ON FINANCIAL INSTRUMENTS

Measurement at fair value

For the purposes of the comparative information between the carrying amounts and fair value of financial instruments, required by IFRS 7, the majority of the non-current financial liabilities of the TIM Group consist of bonds, whose fair value is directly observable in the financial markets, as they are financial instruments that due to their size and diffusion among investors, are commonly traded on the relevant markets (see the Note "Non-current and current financial liabilities"). For other types of financing, however, the following assumptions have been made in determining fair value:

- for variable-rate loans, the nominal repayment amount has been assumed;
- for fixed-rate loans, the present value of future cash flows at the market interest rates of December 31, 2021 has been assumed;
- the carrying amount has been used for some types of loans granted by government institutions for social development purposes, for which fair value cannot be reliably calculated.

Lastly, for the majority of financial assets, their carrying amount is a reasonable approximation of their fair value, since these are short-term investments that are readily convertible into cash.

The fair value measurement of the financial instruments of the Group has been classified in the three levels set out in IFRS 7. In particular, the fair value hierarchy introduces the following levels of input:

- Level 1: quoted prices in active markets;
- Level 2: prices calculated using observable market inputs;
- Level 3: prices calculated using inputs that are not based on observable market data.

The following tables contain, for assets and liabilities at December 31, 2021 and December 31, 2020 and in accordance with the categories established by IFRS 9, the supplementary disclosures on financial instruments required by IFRS 7 and the schedules of gains and losses. They do not include Discontinued operations/Non-current assets held for sale and Liabilities directly associated with Discontinued operations/Non-current assets held for sale.

Key for IFRS 9 categories

	Acronym
Financial assets measured at:	
Amortized cost	AC
Fair value through other comprehensive income	FVTOCI
Fair value through profit or loss	FVTPL
Financial liabilities measured at:	
Amortized cost	AC
Fair value through profit or loss	FVTPL
Hedging Derivatives	HD
Not applicable	n.a.

Carrying amount and fair value hierarchy for each category/class of financial asset/liability and comparison with their fair value at 12/31/2021

(million euros)	IFRS 9 categories	Notes	Carrying amount at 12/31/2021	Amounts recognized in financial statements: Amortized cost	Amounts recognized in financial statements: Fair value recognized in the statements of comprehensive income	Amounts recognized in financial statements: Fair value through profit or loss	Levels of hierarchy or of fair value: Level 1	Levels of hierarchy or of fair value: Level 2	Levels of hierarchy or of fair value: Level 3	Carrying amount under IFRS 16	Fair Value at 12/31/2021
ASSETS											
Financial assets measured at amortized cost	AC		**10,115**	**10,115**	**—**	**—**					**10,115**
Non-current assets											
Receivables from employees		(9)		*39*							
Other financial receivables		(9)	*2*	*211*							
Miscellaneous non-current receivables		(10)	*144*	*144*							
Current assets											
Receivables from employees		(9)		*12*							
Other short-term financial receivables		(9)		*9*							
Cash and cash equivalents		(9)	*6,90*	*6,904*							
Trade receivables		(13)	*2,6*	*2,675*							
Other current receivables		(13)	*1*	*101*							
Contract assets		(13)	*2*	*20*							
Financial assets measured at fair value through other comprehensive income	FVTOCI		**1,671**	**—**	**1,671**	**—**					**1,671**
Non-current assets											
Other investments		(8)	*15*		*156*		*—*	*114*	*42*		
Securities other than investments		(9)			*—*		*—*				
Current assets											
Trade receivables		(13)			*—*						
Securities other than investments		(9)	*1,5*		*1,515*		*1,515*				
Financial assets measured at fair value through profit or loss	FVTPL		**875**	**—**	**—**	**875**					**875**
Non-current assets											
Non-hedging derivatives		(9)	*10*			*100*		*100*	*—*		
Current assets											
Securities other than investments		(9)	*7*			*734*	*734*				
Non-hedging derivatives		(9)				*41*		*41*			
Hedging Derivatives	HD		**2,0**	**—**	**2,012**	**3**					**2,015**
Non-current assets											
Hedging Derivatives		(9)	*1,9*		*1,933*	*2*		*1,935*	*—*		
Current assets											
Hedging Derivatives		(9)	*8*		*79*	*1*		*80*	*—*		
Financial receivables for lease contracts	n.a.		**101**							**101**	**101**
Non-current assets		(9)								*45*	
Current assets		(9)	*5*							*56*	
Total			**14,7**	**10,115**	**3,683**	**878**	**2,249**	**2,270**	**42**	**101**	**14,777**

The financial instruments belonging to hierarchy level 3 of fair value are represented by the following Other investments recognized as Non-current assets, for which directly or indirectly observable prices on the market are not available:

- Northgate CommsTech Innovations Partners L.P.;
- UV T-Growth;
- Other minor companies.

Northgate CommsTech Innovations Partners L.P. and UV-T Growth was measured based on the latest available Net Asset Values reported by the fund managers.

The other minor companies were measured on the basis of an analysis, deemed reliable, of their main assets and liabilities.

The profit/(loss) recognized in Other components of the Consolidated Statements of Comprehensive Income were recognized within the scope of the Reserve for financial assets measured at fair value through other comprehensive income.

(million euros)	IFRS 9 categories	Notes	Carrying amount at 12/31/2021	Amounts recognized in financial statements: Amortized cost	Fair value recognized in the statements of comprehensive income	Fair value through profit or loss	Levels of hierarchy or of fair value: Level 1	Level 2	Level 3	Carrying amount under IFRS 16	Fair Value at 12/31/2021
LIABILITIES											
Financial liabilities measured at amortized cost	AC/HD		**35,096**	**35,096**							**36,077**
Non-current liabilities											
Financial payables (medium/long-term)		(15)	*22,083*	*22,083*							
Current liabilities											
Financial payables (short-term)		(15)	*5,8*	*5,847*							
Trade and miscellaneous payables and other current liabilities		(23)	*7,056*	*7,056*							
Contract liabilities		(23)	*11*	*110*							
Financial liabilities measured at fair value through profit or loss	FVTPL		**53**			**53**					**53**
Non-current liabilities											
Non-hedging derivatives		(15)				*17*		*2*	*15*		
Current liabilities											
Non-hedging derivatives		(15)	*3*			*36*		*36*	*—*		
Hedging Derivatives	HD		**1,3**		**1,399**	**—**					**1,399**
Non-current liabilities											
Hedging Derivatives		(15)	*1,3*		*1,337*	*—*		*1,337*	*—*		
Current liabilities											
Hedging Derivatives		(15)			*62*	*—*		*62*	*—*		
Financial liabilities for lease contracts	n.a.		**4,715**							**4,715**	**5,542**
Non-current liabilities		(15)	*4,0*							*4,064*	
Current liabilities		(15)	*6*							*651*	
Total			**41,2**	**35,096**	**1,399**	**53**	**—**	**1,437**	**15**	**4,715**	**43,071**

Note that financial liabilities include a financial instrument for an amount of 15 million euros, belonging to hierarchy level 3 of fair value, for which directly or indirectly observable prices on the market are not available. This financial liability refers to the rights envisaged in the Transaction Agreement in the favor of Teemo Bidco Sarl, as minority shareholder, under the scope of the FiberCop transaction.

The measurement of the economic value of the financial liability has been taken using a valuation model defined internally by TIM. Through an econometric approach, the correlation has been first estimated between the targets set at a national level and a series of macro economic and social-demographic variables. Then taking into account the uncertainty as to how these variables will evolve and the market share of FiberCop, through Monte Carlo simulation, a series of possible developments of the phenomenon was calculated and the expected value of the financial liability, determined.

Carrying amount and fair value hierarchy for each category/class of financial asset/liability and comparison with their fair value at 12/31/2020

(million euros)	IFRS 9 categories	Notes	Carrying amount in financial statements at 12/31/2020	Amounts recognized in financial statements			Levels of hierarchy or of fair value			Carrying amount under IFRS 16	Fair Value at 12/31/2020
				Amortized cost	Fair value recognized in the statements of comprehensive income	Fair value through profit or loss	Level 1	Level 2	Level 3		
ASSETS											
Financial assets measured at amortized cost	AC		**8,263**	**8,263**	**—**	**—**					**8,263**
Non-current assets											
Receivables from employees		(9)	*40*	*40*							
Other financial receivables		(9)	*213*	*213*							
Miscellaneous non-current		(10)	*151*	*151*							
Current assets											
Receivables from employees		(9)	*13*	*13*							
Other short-term financial receivables		(9)	*2*	*2*							
Cash and cash equivalents		(9)	*4,829*	*4,829*							
Trade receivables		(13)	*2,905*	*2,905*							
Other current receivables		(13)	*85*	*85*							
Contract assets		(13)	*25*	*25*							
Financial assets measured at fair value through other comprehensive income	FVTOCI		**821**	**—**	**821**	**—**					**821**
Non-current assets											
Other investments		(8)	*54*		*54*		*—*	*16*	*38*		
Securities other than investments		(9)	*—*		*—*		*—*				
Current assets											
Trade receivables		(13)			*—*						
Securities other than investments		(9)	*767*		*767*		*767*				
Financial assets measured at fair value through profit or loss	FVTPL		**419**	**—**	**—**	**419**					**419**
Non-current assets											
Non-hedging derivatives		(9)	*44*			*44*		*44*	*—*		
Current assets											
Securities other than investments		(9)	*325*			*325*	*325*				
Non-hedging derivatives		(9)	*50*			*50*		*50*			
Hedging Derivatives	HD		**2,067**	**—**	**1,851**	**216**					**2,067**
Non-current assets											
Hedging Derivatives		(9)	*1,970*		*1,778*	*192*		*1,970*	*—*		
Current assets											
Hedging Derivatives		(9)	*97*		*73*	*24*		*97*	*—*		
Financial receivables for lease contracts	n.a.		**98**							**98**	**98**
Non-current assets		(9)	*43*							*43*	
Current assets		(9)	*55*							*55*	
Total			**11,668**	**8,263**	**2,672**	**635**	**1,092**	**2,177**	**38**	**98**	**11,668**

(million euros)	IFRS 9 categories	Notes	Carrying amount in financial statements at 12/31/2020	Amounts recognized in financial statements			Levels of hierarchy or of fair value		Carrying amount under IFRS 16	Fair Value at 12/31/2020
				Amortized cost	Fair value recognized in the statements of comprehensive income	Fair value through profit or loss	Level 1	Level 2		
LIABILITIES										
Financial liabilities measured at amortized cost	AC/HD		**29,875**	**29,875**						**32,299**
Non-current liabilities										
Financial payables (medium/long-term)		(15)	*21,813*	*21,813*						—
Current liabilities										
Financial payables (short-term)		(15)	*3,613*	*3,613*						—
Trade and miscellaneous payables and other current liabilities		(23)	*4,329*	*4,329*						
Contract liabilities		(23)	*120*	*120*						
Financial liabilities measured at fair value through profit or loss	FVTPL		**12**			**12**				**12**
Non-current liabilities										
Non-hedging derivatives		(15)	*10*			*10*		*10*		
Current liabilities										
Non-hedging derivatives		(15)	*2*			*2*		*2*		
Hedging Derivatives	HD		**1,894**		**1,894**	**—**				**1,894**
Non-current liabilities										
Hedging Derivatives		(15)	*1,832*		*1,832*	—		*1,832*		
Current liabilities										
Hedging Derivatives		(15)	*62*		*62*	—		*62*		
Financial liabilities for lease contracts	n.a.		**4,830**						**4,830**	**5,103**
Non-current liabilities		(15)	*4,199*						*4,199*	
Current liabilities		(15)	*631*						*631*	
Total			**36,611**	**29,875**	**1,894**	**12**	**—**	**1,906**	**4,830**	**39,308**

Gains and losses by IAS 9 category - Year 2021

(million euros)	Categories IFRS9	**Net gains/(losses) 2021**	**of which interest**
Assets measured at amortized cost	AC	(275)	62
Assets and liabilities measured at fair value through profit or loss	FVTPL	(10)	
Assets measured at fair value recognized in the statements of comprehensive income	FVTOCI	5	
Liabilities measured at amortized cost	AC	(958)	870
Total		**(1,238)**	**932**

Gains and losses by IAS 9 category - Year 2020

(million euros)	IFRS 9 categories	**Net gains/(losses) 2020**	**of which interest**
Assets measured at amortized cost	AC	(441)	23
Assets and liabilities measured at fair value through profit or loss	FVTPL	108	
Assets measured at fair value recognized in the statements of comprehensive income	FVTOCI	3	
Liabilities measured at amortized cost	AC	(967)	961
Total		**(1,297)**	**984**

NOTE 20
PROVISIONS FOR EMPLOYEE BENEFITS

These decreased by 64 million euros compared to December 31, 2020. The figure breaks down as follows:

(million euros)		12/31/2019	Increases/ Present value	Decrease	Exchange differences and other changes	12/31/2020
Provision for employee severance indemnities	**(a)**	**841**	**—**	**(142)**	**2**	**701**
Provisions for pension plans		24	1	(2)	—	23
Provision for termination benefit incentives and corporate restructuring		559	34	(552)	(2)	39
Total other employee benefits	**(b)**	**583**	**35**	**(554)**	**(2)**	**62**
Total	**(a+b)**	**1,424**	**35**	**(696)**	**—**	**763**
of which:						
non-current portion		1,182				724
current portion (*)		242				39

(*) The current portion refers only to Other provisions for employee benefits.

(million euros)		12/31/2020	Increases/ Present value	Decrease	Exchange differences and other changes	12/31/2021
Provision for employee severance indemnities	**(a)**	**701**	**20**	**(48)**	**5**	**678**
Provision for pension and other plans		23		(2)		21
Provision for termination benefit incentives and corporate restructuring		39	8	(44)	(3)	—
Total other employee benefits	**(b)**	**62**	**8**	**(46)**	**(3)**	**21**
Total	**(a+b)**	**763**	**28**	**(94)**	**2**	**699**
of which:						
non-current portion		724				699
current portion (*)		39				—

(*) The current portion refers only to Other provisions for employee benefits.

The **Provision for employee severance indemnities (T.F.R.)** only refers to Italian companies and decreased on the whole by 23 million euros. The decreases of 48 million euros relating to indemnities paid during the year to employees who terminated employment or for advances.

The increase of 20 million euros in the "Increases/Present value" column consists of the following:

(million euros)	2021	2020
(Positive)/negative effect of curtailment	—	(1)
Current service cost (*)	—	—
Finance expenses	5	6
Net actuarial (gains) losses for the year	15	(5)
Total	**20**	**—**
Effective return on plan assets	there are no assets servicing the plan	

(*) The portions intended for the INPS Treasury Fund or for the supplementary pension funds have been recorded under "Employee benefits expenses" under "Social security expenses". The latter account is used only for the severance indemnity expenses of companies with less than 50 employees.

The net actuarial losses recognized at December 31, 2021 amounted to 15 million euros (net actuarial gains of 5 million euros in 2020), and are essentially connected with the inflation rate forecast, which went from 0.8% at December 31, 2020 to 1.75% at December 31, 2021; the discount rate also increased, going from the 0.34% used at December 31, 2020 to 0.98% at December 31, 2021.

According to national law, the amount of provision for employee severance indemnities to which each employee is entitled depends on the period of service and must be paid when the employee leaves the company. The amount of severance indemnity due upon termination of employment is calculated on the basis of the period of employment and the taxable compensation of each employee. This liability is adjusted annually based on the official cost-of-living index and legally-set interest. The liability is not associated with any vesting condition or period or any funding obligation; accordingly, there are no assets servicing the provision. The liability is recognized net of the partial prepayments of the provision and payments of the amounts obtained by employees for the reasons permitted by the applicable regulations.

Under the regulations introduced by Italian Legislative Decree 252/2005 and Law no. 296/2006 with which, for companies with at least 50 employees, the severance indemnities accruing from 2007 are assigned, as elected by the employees, to either the INPS Treasury Fund or to supplementary pension funds and take the form of a "defined contribution plan".

However, for all companies, the revaluations of the amounts in the provision for employee severance indemnities existing at the election date, and also the amounts accrued and not assigned to supplementary pension plans for companies with less than 50 employees, are retained in the provision for employee severance indemnities. In accordance with IAS 19, the provision has been recognized as a "defined benefit plan".

In application of IAS 19, employee severance indemnities have been calculated using the "Projected Unit Credit Method" as follows:

- the future possible benefits which could be paid to each employee registered in the program in the event of retirement, death, disability, resignation etc. have been projected on the basis of a series of financial assumptions (cost-of-living increases, interest rate, increase in compensation etc.). The estimate of future benefits includes any increases for additional service seniority, as well as the estimated increase in the compensation level at the measurement date – only for employees of companies with less than 50 employees during the year 2006;
- the average present value of future benefits has been calculated, at the measurement date, on the basis of the annual interest rate adopted and of the probability that each benefit actually has to be paid;
- the liability of each company concerned has been calculated as the average present value of future benefits that will be generated by the existing provision at the measurement date, without considering any future accruals (for companies with at least 50 employees during the year 2006) or by identifying the amount of the average present value of future benefits which refer to the past service already accrued by the employee in the company at the measurement date (for the others), i.e. adopting the "service pro-rate".

The following assumptions have been made:

FINANCIAL ASSUMPTIONS	Executives	Non-executives
Inflation rate	**1.75% per annum**	**1.75% per annum**
Discount rate	**0.98% per annum**	**0.98% per annum**
Employee severance indemnities annual increase rate	**2.81% per annum**	**2.81% per annum**
Annual real wage growth:		
equal to or less than 40 years of age	1.0% per annum	1.0% per annum
over 40 but equal to or less than 55 years of age	0.5% per annum	0.5% per annum
over 55 years of age	0.0% per annum	0.0% per annum
DEMOGRAPHIC ASSUMPTIONS	**Executives**	**Non-executives**
Probability of death	Mortality tables RG48 published by Ragioneria Generale dello Stato	Mortality tables RG48 published by Ragioneria Generale dello Stato
Probability of disability	INPS tables divided by age and sex	INPS tables divided by age and sex
Probability of resignation:		
up to 40 years of age	2.00%	1.00%
from 41 to 50 years of age	2.00%	0.50%
from 51 to 59 years of age	1.00%	0.50%
from 60 to 64 years of age	None	0.50%
aged 65 and over	None	None
Probability of retirement	100% on achievement of the AGO requirements aligned with D.L. 4/2019	
Probability of receiving at the beginning of the year an advance from the provision for severance indemnities accrued equal to 70%	1.5% per annum	1.5% per annum

The application of the above assumptions resulted in a liability for employee severance indemnities of 678 million euros at December 31, 2021 (701 million euros at December 31, 2020).

Reported below is a sensitivity analysis for each significant actuarial assumption adopted to calculate the liability as at year end, showing how the liability would have been affected by changes in the relevant actuarial assumption that were reasonably possible at that date, stated in amounts.

The weighted average duration of the obligation of the Parent amounted to 10 years.

CHANGES IN ASSUMPTIONS	Amounts (million euros)
Turnover rate:	
+0.25 p.p.	2
- 0.25 p.p.	(2)
Annual inflation rate:	
+0.25 p.p.	(12)
- 0.25 p.p.	11
Annual discount rate:	
+0.25 p.p.	15
- 0.25 p.p.	(16)

The **Provision for pension and other plans** amounted to 21 million euros at December 31, 2021 (23 million euros at December 31, 2020) and mainly represented pension plans in place at foreign companies of the Group.

The **Provisions for incentive to take early retirement and company restructuring** reduce by a total of 39 million euros, zeroing during the period, as a result of outgoings and the reclassification to debt of the amounts not yet paid, relative to both plans already accrued during previous years and 2021 expenses, following the application of the trade union agreements signed by the Parent Company and the trade unions on March 8, 2021 and on April 23, 2021 as well as the expenses related to the agreements signed respectively on March 15, 2021 by the company Olivetti, on April 27, 2021 by the company Noovle S.p.A. and on May 6, 2021 by the company Telecom Italia Sparkle.

NOTE 21
PROVISIONS

These increased by 346 million euros compared to December 31, 2020. The breakdown is as follows:

(million euros)	12/31/2020	Increase	Taken to income	Used directly	Exchange differences and other changes	12/31/2021
Provision for taxation and tax risks	**67**	6	—	(3)	3	**73**
Provision for restoration costs	**274**	15	—	(8)	—	**281**
Provision for legal disputes	**747**	62	—	(370)	2	**441**
Provision for commercial risks	**29**	657	(3)	(7)	1	**677**
Provision for risks and charges on investments and corporate-related transactions	**21**	2	(4)	—	(7)	**12**
Other provisions	**4**	2	—	(2)	—	**4**
Total	**1,142**	**744**	**(7)**	**(390)**	**(1)**	**1,488**
of which:						
non-current portion	**770**					**926**
current portion	**372**					**562**

The non-current portion of provisions for risks and charges mainly relates to some of the provision for commercial risks, the provision for legal disputes and the provision for restoration costs. More specifically, in accordance with accounting policies, the total amount of the provision for restoration costs is calculated by re-measuring the amounts for which a probable outlay is envisaged, based on the estimated inflation rates for the individual due dates, and subsequently discounted to the reporting date based on the average cost of debt, taking into account cash outflow forecasts.

The **provision for taxation and tax risks** increased by 6 million euros compared to December 31, 2020.

The **provision for restoration costs** refers to the provision for the costs expected to be incurred for the restoration of leased properties and sites used in the mobile sector and for the dismantling of certain assets (particularly batteries and wooden piling); it mainly refers to the parent company (149 million euros), the company FiberCop (127 million euros) and the Brazil Business Unit (5 million euros).

The **provision for legal disputes** included the provision for litigation with other counterparties and employees. The amount at December 31, 2021 included 356 million euros for the Domestic Business Unit, a reduction on December 31, 2020 following use for transactions and legal agreements and 84 million euros for the Brazil Business Unit.

The **provision for commercial risks** relates to the Domestic Business Unit and mainly the Parent Company TIM S.p.A.. In 2021, it increased by 648 million euros, mainly following the posting of 548 million euros of Contractual Risk Provisions for Onerous Contracts (IAS 37) relative to contracts with certain counterparties for multimedia content offers. Further details are provided in the Note “Significant non-recurring Events and Transactions”.

The **provision for risks and charges on investments and corporate-related transactions** reduces by 9 million euros on the previous year.

Other provisions for risks and charges come to 4 million euros and are essentially attributable to the Domestic Business Unit.

NOTE 22

MISCELLANEOUS PAYABLES AND OTHER NON-CURRENT LIABILITIES

This item decreased by 2,189 million euros compared to December 31, 2020. The figure breaks down as follows:

(million euros)		12/31/2021	12/31/2020
Miscellaneous payables (non-current)			
Payables to social security agencies		452	501
Income tax payables (*)		231	493
Other payables		7	1,748
	(a)	690	2,742
Other non-current liabilities			
Deferred revenues from customer contracts (Contract liabilities)		88	106
Other deferred revenue and income		368	460
Capital grants		267	294
	(b)	723	860
Total	(a+b)	1,413	3,602

(*) Analyzed in the Note "Income tax expense".

Miscellaneous non-current payables include:

- **Payables to social security agencies** amounting to 452 million euros, mainly relating to the aforementioned debt position with INPS for the application of the agreements signed with the trade unions relating to the application of Article 4, paragraphs 1-7ter, of Italian Law 92 of June 28, 2012 (for further details see the Note “Employee benefits expenses”). This debt position (non-current and current portion) is as follows:

(million euros)	12/31/2021	12/31/2020
Non-current payables		
Due from 2 to 5 years after the end of the reporting period	443	494
Due beyond 5 years after the end of the reporting period	9	7
	452	501
Current payables	258	298
Total	710	799

- **other payables** equal to 7 million euros at December 31, 2021. These decreased from December 31, 2020, essentially due to the reclassification to miscellaneous current payables of 1,738 million euros relating to the last installment to be paid by September 2022 relating to the purchase - which took place in 2018 - of the rights-of-use for the frequencies in the 694-790 MHz, 3600-3800 MHz and 26.5-27.5 GHz bands, to be allocated on 5G mobile communication services in Italy.

The **other non-current liabilities** include:

- **Deferred revenues from contracts with customers (contract liabilities)** of 88 million euros (106 million euros at December 31, 2020) which are reversed to the income statement according to the duration of the contractual obligations between the parties, averaging 24 months; therefore, the balance as at December 31, 2021 will be reversed to the income statement generally by 2023. In particular, the item includes:
  - TIM S.p.A. deferred revenues for subscription charges and rent and maintenance payments (42 million euros);
  - TIM S.p.A. deferred revenues for network access subscription charges (25 million euros);
  - Deferred revenues of TIM S.p.A. for outsourcing charges (13 million euros);
  - Deferred revenues for activation and installation fees charged on new TIM S.p.A. customer contracts (4 million euros): in this regard, it is noted that under IFRS 15 activation/installment revenues are allocated to other contract obligations and recognized throughout the period of performance of the contract, as they do not relate to separate performance obligations.
- **Other deferred revenue and income** totaling 368 million euros; the item consisted of the non-current portion (approx. 108 million euros) of the deferred gain on the sale and lease-back of telecommunication towers by the Brazil Business Unit;this item also includes deferred revenues related to agreements for the sale of the transmission capacity (lease operating income).
- **Capital grants** of 267 million euros: the item represents the component still to be released to the income statement based on the remaining useful life (estimated at around 18 years) of the assets that the grants refer to and is mainly connected to the realization of the infrastructures on the ultrabroadband-UBB and broadband-BB projects.

NOTE 23

TRADE AND MISCELLANEOUS PAYABLES AND OTHER CURRENT LIABILITIES

Miscellaneous payables and other non-current liabilities rose by 2,885 million euros compared to December 31, 2020. The figure breaks down as follows:

(million euros)		12/31/2021	*of which Financial Instruments*	12/31/2020	*of which Financial Instruments*
Trade payables					
Payables to suppliers		4,745	*4,745*	3,689	*3,689*
Payables to other telecommunication operators		416	*416*	444	*444*
	(a)	**5,161**	***5,161***	**4,133**	***4,133***
Tax payables	(b)	**168**		**226**	
Miscellaneous payables					
Payables for employee compensation		176		166	
Payables to social security agencies		386		428	
Payables for TLC operating fee		165		80	
Dividends approved, but not yet paid to shareholders		36	*36*	33	*33*
Other		1,968	*1,859*	263	*163*
Employee benefits (except for employee severance indemnities) for the current portion expected to be settled within 12 months		—		39	
Provisions for risks and charges for the current portion expected to be settled within 12 months		562		372	
	(c)	**3,293**	***1,895***	**1,381**	***196***
Other current liabilities					
Liabilities from customer contracts (Contract liabilities)		757	*110*	741	*120*
Other deferred revenue and income		66		86	
Other		28		21	
	(d)	**851**	***110***	**848**	***120***
Total	**(a+b+c+d)**	**9,473**	***7,166***	**6,588**	***4,449***

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

Trade payables amounting to 5,161 million euros (4,133 million euros at December 31, 2020), mainly refer to:

- TIM S.p.A. (3,574 million euros); the increase on December 31, 2020 reflects the dynamics of payments relative to bills payable;
- Brazil Business Unit (984 million euros); the increase on December 31, 2020 is connected with the November 2021 purchase of 5G licenses.

At December 31, 2021, trade payables due beyond 12 months totaled 73 million euros (44 at December 31, 2020) and are mainly represented by payables of the Brazil Business Unit for the purchase and renewal of telecommunications licenses, also including the payable due to Entidade Administradora da Conectividade de Escolas (EACE) for the development of certain infrastructural projects in Brazil in connection with the assignment of the rights of use of frequencies for 5G services.

For more details on the acquisition of 5G licenses in Brazil, see the Note on “Intangible assets”.

Tax payables amounted to 168 million euros and mainly consisted of both the tax payables of the Brazil Business Unit (72 million euros) and the payables of TIM S.p.A., mainly relating to the amount owed to the tax authorities for tax payables withheld as withholding agent (61 million euros), the amount payable for the government concession tax (5 million euros) and the VAT payable (2 million euros).

Miscellaneous payables mainly include:

- the residual payable relating to the acquisition, by TIM S.p.A., of the rights to use 5G licenses (1,738 million euros), reclassified in 2021 from Miscellaneous payables and other non-current liabilities following the deadline envisaged in 2022;
- the current debt position towards INPS in relation to the application of the agreements signed relating to Article 4, paragraphs 1-7ter, of Italian Law 92 of June 28, 2012, as described in the Note "Miscellaneous payables and other non-current liabilities".

Other current liabilities amounted to 851 million euros (848 million euros at December 31, 2020). They break down as follows:

- **Liabilities from customer contracts (Contract liabilities)**, totaling 757 million euros. This item includes liabilities to customers related to the obligations of Group companies to transfer goods and services for which have received a price. Liabilities with customers are shown below, which generally have a maturity within 12 months; therefore, the figure at December 31, 2021 will be paid back substantially by December 31, 2022.

  In particular:

  - **contract liabilities** amounting to 11 million euros; the item includes bundle contracts (good and services packages) with performance obligations with different timing for the recognition of revenues and consequent deferral of the fees originally recognized. The decrease recognized in the year 2021 (-8 million euros) was mainly linked to the launch of commercial offers that no longer require a fixed duration and the reversal to the income statement of the balance previously accumulated;;
  - **customer-related items**, equal to 389 million euros; the item includes trade payables following contractual relationships, such as the payable for prepaid traffic and the subscription fees charged in advance;
  - **progress payments and advances** equal to 63 million euros relating to trade payables following prepayments, such as deposits made by subscribers for telephone calls;
  - **deferred revenues from customer contracts**, equal to 294 million euros essentially include:
    - Parent Company deferred revenues for rent and maintenance fees (131 million euros);
    - Parent Company deferred revenues for interconnection fees (116 million euros);
    - Parent Company deferred revenues on activation and installation of new contracts with customers (7 million euros).
- **Other deferred revenue and income** amounted to 66 million euros. They mainly refer to deferred revenues from transmission capacity transfer contracts and deferred revenues from real estate leases (lease operating income).
- **Other** (28 million euros, 21 million euros at December 31, 2020): this refers to payables for advances on work in progress on networks.

NOTE 24

DISPUTES AND PENDING LEGAL ACTIONS, OTHER INFORMATION, COMMITMENTS AND GUARANTEES

A description is provided below of the most significant judicial, arbitration and tax disputes in which TIM Group companies are involved at December 31, 2021, as well as those that came to an end during the period.
The TIM Group has posted liabilities totaling 313 million euros for those disputes described below where the risk of losing the case has been considered probable.
It should be noted that for some disputes described below, on the basis of the information available at the closing date of the Annual Financial Report and with particular reference to the complexity of the proceedings, to their progress, and to elements of uncertainty of a technical-trial nature, it was not possible to make a reliable estimate of the size and/or times of possible payments, if any. Moreover, in those cases in which disclosure of information on a dispute could seriously jeopardize the position of TIM or its subsidiaries, only the general nature of the dispute is described.
Lastly, as regards proceedings with the Antitrust Authority, note that based on Article 15, paragraph 1 of Law 287/1990 ("Antitrust regulations"), the Authority has the right to impose an administrative sanction calculated on the turnover of the Group in cases of breaches considered serious.

a) Significant disputes and pending legal actions

International tax and regulatory disputes

At December 31, 2021, companies belonging to the Brazil Business Unit were involved in tax or regulatory disputes, the outcome of which is estimated as a possible loss totaling around 16.3 billion reais (16.6 billion reais at December 31, 2020). The main types of litigation are listed below, classified according to the tax to which they refer.

Federal taxes

In relation to the federal level of taxation, the following disputes should be noted:

- disallowance of the tax effects of the merger between the companies of the TIM Brasil Group;
- denial of the SUDENE regional tax benefit, due to alleged irregularities in the management and reporting of the benefit itself;
- challenges regarding offsetting against previous tax losses;
- further challenges regarding the tax deductibility of the amortization of goodwill;
- imposition of income tax on certain types of exchange rate differences;
- imposition of withholding taxes on certain types of payments to foreign entities (for example, payments for international roaming);
- further challenges regarding offsets made between taxes payable and group company credit positions.

Overall, the risk for these cases, considered to be possible, amounts to 3.1 billion reais (4.3 billion reais at December 31, 2020).

State taxes

Within the scope of the state levy, there are numerous challenges regarding ICMS, and in particular:

- challenges concerning the reduction of the tax base due to discounts granted to customers, as well as challenges regarding the use of tax credits declared by group companies, with respect to the return of loaned telephone handsets, and following the detection of contract frauds to the detriment of the companies;
- subjection of some fees owed to group companies and classified by them as fees for services other than telecommunications to ICMS;
- challenges over the use of the "PRO-DF" tax benefit originally granted by some States, and subsequently declared unconstitutional (the challenge refers to the actual credit due to ICMS, declared by the TIM Cellular on the basis of the aforementioned tax benefits);
- challenges relating to the use of ICMS credits claimed by Group companies as a result of the acquisition of tangible assets, and in relation to the supply of electricity to the companies, as well as in application of the provisions on acting as a withholding agent;
- fines imposed on group companies for irregularities in tax return compliance;
- challenges of ICMS credits in relation to acting as a withholding agent, applicable when equipment is bought and distributed in different States;
- challenges of ICMS credits deriving from the "special credit" recognized by the company to its prepaid customers, against subsequent top-ups.

Overall, the risk for these cases, considered to be possible, amounts to 8.8 billion reais (8.6 billion reais at December 31, 2020).

Municipal taxes

Among disputes classified with a "possible" degree of risk, there are some relating to municipal taxes for a total amounting to around 1.2 billion reais (around 0.7 billion reais at December 31, 2020).

FUST and FUNTTEL

The main challenges about contributions to the regulatory body (Anatel), and in particular in terms of FUST and FUNTTEL, concern whether or not interconnection revenues should be subject to these contributions.

Overall, the risk for these cases, considered to be possible, amounts to 3.2 billion reais (3 billion reais at December 31, 2020).

Administrative offense charge pursuant to Legislative Decree 231/2001 for the so-called TIM Security Affair

In December 2008 TIM received notification of the application for its committal for trial for the administrative offense specified in articles 21 and 25, subsections 2 and 4, of legislative decree no. 231/2001 in relation to the affairs that involved several former employees of the Security function and former collaborators of the Company charged – among other things – with offenses involving corruption of public officials, with the object of acquiring information from confidential files. In May 2010 TIM definitively ceased to be a defendant in the criminal trial, the Judge for the Preliminary Hearing having approved the motion for settlement of the proceedings (plea bargaining) presented by the Company. In the hearing before Section One of the Milan Court of Assizes, TIM acted in the dual role of civil party and civilly liable party. In fact, on the one hand it was admitted as civil party against all the defendants for all charges, and on the other it was also cited as the party with civil liability pursuant to article 2049 of the Italian Civil Code for the actions of the defendants in relation to 32 civil parties. Telecom Italia Latam and Telecom Italia Audit and Compliance Services (now incorporated into TIM) also participated in the hearing as civil parties, having filed appearances since the Preliminary Hearing and brought charges against the defendants for hacking. After the lengthy evidence hearings, 22 civil parties filed claims for compensation, also against TIM as civilly liable party, for over 60 million euros (over 42 million euros of which requested by a single civil party). The Company itself, as civil party, also summarized its conclusions against the defendants, requesting that they be found liable for all the damages suffered as a result of the facts of the case. In February 2013, Section 1 of the Milan Court of Assizes issued the first instance judgement, sentencing the defendants to terms of imprisonment of between 7 years and 6 months and one year. The Court also recognized that there had been non-pecuniary damage to some of the civil parties as a consequence of the alleged facts, and sentenced the defendants, jointly and severally with civilly liable party TIM, to compensate said damages, totaling 270,000 euros (in part jointly and severally with Pirelli) plus legal fees; at the same time the Court also sentenced the defendants to pay compensation for pecuniary and non-pecuniary damages incurred by the Company, granting it a provisional sum of 10 million euros. The judgement also recognized the existence of non-pecuniary damage to the companies Telecom Italia Latam and Telecom Italia Audit & Compliance Services, sentencing the defendants to pay compensation for damages on an equitable basis of 20,000 euros for each company. In November 2013 the grounds for the judgement in the first instance were published (which, for its part, the Company decided not to contest). At the end of the appeal, which was brought by the convicted defendants, the judgement in the first instance was partly reversed. The appeal judge acknowledged that the time-limit had expired on the majority of the charges and made an order not to proceed against the defendants who had been convicted in the lower court, with the exception of two former private investigators, who were found guilty of the offense of revealing information which was subject to a prohibition on disclosure. As for the civil judgements, the Court revoked those made by the judge of first instance and ruled in favor of three ministries, AGCM (the Italian Competition Authority) and the Revenues Agency. The Court also decided to revoke the provisional sum of 10 million euros awarded to the Company as civil party at the end of the proceedings in the court of first instance, making a generic ruling that the defendants should pay compensatory civil damages. Finally, the appeal judge also rejected all the demands for compensation advanced in the appeals by certain civil parties for a total of about 60 million euros, in respect of which the Company has the role of party liable for damages. At the end of the appeal, therefore, the civil rulings settled in the first instance were confirmed which TIM, as the party liable for damages, had already paid to the damaged requesting parties. The three defendants brought an appeal to the Court of Cassation against the judgement of the second instance issued by the Milan Appeal Court of Assizes. In April 2018 the Supreme Court confirmed the convictions of the defendants and canceled the civil rulings, referring the issue back to the civil court for a more careful assessment of the claims made, above all concerning proof of the "quantum". It also annulled and referred the confiscation in favor of the State. The annulment of the security measure was lastly and definitively confirmed with a ruling by the Court of Cassation filed in January 2021.

Golden Power Case

In August 2017 the Prime Minister's office brought proceedings against TIM (as well as Vivendi) in order to verify the fact that TIM has an obligation to notify, pursuant to the “Golden Power” law, Vivendi’s acquisition of corporate control of TIM and the strategic assets it holds. In September 2017, the proceedings in question concluded by affirming that this obligation did exist for TIM with effect from May 4, 2017 (the date of the Shareholders’ Meeting that renewed TIM’s corporate boards).

As a result of this decision by the Presidency of the Council of Ministers, new and separate administrative proceedings started for the imposition on TIM of the financial penalty laid down by the Golden Power law for non-compliance with the aforementioned obligation to notify. These proceedings ended on May 8, 2018 with the imposition of a financial penalty of 74.3 million euros.

The Company, is convinced that it has the legal arguments to demonstrate that it was under no obligation to notify the control exercised over it by Vivendi, filed separate extraordinary appeals to the President of the Republic to request the abrogation of the order of September 2017 and before the Lazio Regional Administrative Court (TAR) against the aforementioned order of May 8, 2018, which imposed a financial penalty, requesting its precautionary suspension. As regards the appeal to the Lazio Regional Administrative Court (TAR) against the provision of May 8, 2018, which imposed the financial penalty, the TAR, in upholding in July 2018 the interim petition lodged by the Company, has suspended payment of the penalty. Subsequently, with a non-definitive ruling in May 2019, the Lazio Regional Administrative Court (TAR)R: (i) accepted TIM's request for provisional measures to suspend the fine conditional on the offer of the guarantee; (ii) granted the suspension of the procedure to wait for the final judgment in the (injurious) case pending before the President of the Republic regarding the notification obligation, pursuant to the Golden Power provisions; (iii) rejected the procedural objections raised by the defendant administrations.

It should also be noted that in May 2018 a guarantee bond for 74.3 million euros was issued in favor of the Presidency of the Council. TIM had been requested to submit such a bond for its application to Lazio TAR for precautionary suspension of the collection of the fine imposed for alleged breach of Art. 2 of Decree Law 21 of March 15, 2012 (the "Golden Power" law). This surety was renewed in May 2021.

Furthermore, TIM appealed before the Lazio TAR and then appealed before the Council of State against the provision with which Consob, on September 13, 2017, affirmed Vivendi's control over TIM. In December 2020, the Council of State issued a final judgment upholding TIM's appeal and canceling the provision by Consob, a significant premise to the entire subsequent proceedings of the Presidency of the Council in relation to the obligation to Golden Power notification as described above. On June 14, 2021, Consob submitted an extraordinary appeal to the Court of Cassation on grounds of jurisdiction; TIM filed an appearance, objecting that the appeal is unlawful and inadmissible.

On the other hand, the Presidency of the Council of Ministers exercised the special powers prescribed in the Golden Power law through two specific rulings in October and November 2017 with which it imposed specific prescriptions and conditions on TIM and on the companies of the Telecom Italia Sparkle group and Telsy Elettronica e Telecomunicazioni (now Telsy S.p.A.).

The prescriptions, according to the Administrative Authority, are essentially connected to the circumstance that these companies, in part, perform activities that are relevant for national security and as far as TIM is concerned to the circumstance that it also owns the infrastructure and the systems used to provide access to end-users of services covered by the universal service obligation.

Any failure on the part of the recipients of the measures to execute said conditions and prescriptions is penalized in the same way as failure to notify significant deeds for the purpose of the application of the so-called Golden Power.

The companies subject to the prescriptions are required to send periodic reports to a special Monitoring Committee established at the office of the Prime Minister in order to verify compliance with the aforementioned prescriptions.

In December 2017 the Group sent to the Presidency of the Council of Ministers the first compliance report outlining all the proposals and activities put in place to carry out the prescriptions. This report is then followed by half yearly reports, as required by current legislation.

Nevertheless, also for this case TIM has already filed two extraordinary appeals to the President of the Republic to request the cancellation (i) of the imposition of the measures pursuant to Art. 1 D.L. 21/2012 and (ii) the imposition of measures pursuant to Art. 2 D.L. 21/2012.

As stated, the premise for exercising special powers was (erroneously, according to the Company) referred to the de facto control resulting from the outcome of the shareholders' meeting of May 4, 2017 and to the direction and coordination of TIM by Vivendi. Both these circumstances no longer apply, since: at the Shareholders' Meeting of May 4, 2018, the slate presented by the shareholders Elliott International LP, Elliott Associates LP and The Liverpool Limited Partnership received the majority vote; the Board of Directors was re-appointed with 13 independent directors out of a total of 15, with only 5 from the slate presented by Vivendi; thus, Vivendi no longer has direction and coordination, nor is there de facto control.

In consequence, the Company has asked the Presidency of the Council of Ministers to repeal the two Decrees, while, in the alternative, expressing its willingness to collaborate in the redrafting of the prescriptions applied to TIM, to take account of the changed situation.

The Presidency of the Council of Ministers, in decrees issued on July 6, 2018, deemed that it could not further exercise its special powers, reaffirming the validity of the two Decrees it had previously issued, and rejected the application for their repeal.

The justification for this refusal is the purported circumstance that the new governance arrangements of the Company are alleged to be currently characterized by extreme variability; this, it is argued, means that the measures through which the special powers have been exercised cannot be surmounted, given the need to protect the public interest in the security and operation of the networks.

The Company has lodged an appeal, with additional reasons and as part of the appeals already lodged, against the Prime Minister's decrees of October 16 and November 2, 2017, and against the Prime Minister's resolution of July 6, 2018, rejecting the appeal for revocation presented by the company, on the outcome of the changed situation in corporate governance.

Antitrust Case A428

At the conclusion of case A428, in May 2013, Italian Competition Authority AGCM imposed two administrative sanctions of 88,182,000 euros and 15,612,000 euros on TIM for abuse of its dominant position. The Company allegedly (i) hindered or delayed activation of access services requested by OLOs through unjustified and spurious refusals; (ii) offered its access services to final customers at economic and technical conditions that allegedly could not be matched by competitors purchasing wholesale access services from TIM itself, only in those geographic areas of the Country where disaggregated access services to the local network are available, and hence where other operators can compete more effectively with the Company.

TIM appealed against the decision before the Regional Administrative Court (TAR) for Lazio, applying for payment of the fine to be suspended. In particular, it alleged: infringement of its rights to defend itself in the proceedings, the circumstance that the organizational choices challenged by AGCM (the Italian Competition Authority) and allegedly at the base of the abuse of the OLO provisioning processes had been the subject of specific rulings made by the industry regulator (AGCom), the circumstance that the comparative examination of the internal/external provisioning processes had in fact shown better results for the OLOs than for the TIM retail department (hence the lack of any form of inequality of treatment and/or opportunistic behavior by TIM), and (regarding the second abuse) the fact that the conduct was structurally unsuitable to reduce the margins of the OLOs.

In May 2014, the judgement of the Lazio TAR was published, rejecting TIM's appeal and confirming the fines imposed in the original order challenged. In September 2014 the Company appealed against this decision.

In May 2015, with the judgement no. 2497/15, the Council of State found the decision of the court of first instance did not present the deficiencies alleged by TIM and confirmed the AGCM ruling. The company had already proceeded to pay the fines and the accrued interest.

In a decision notified in July 2015, AGCM (the Italian Competition Authority) started proceedings for non-compliance against TIM, to ascertain if the Company had respected the notice to comply requiring it to refrain from undertaking behaviors analogous to those that were the object of the breach ascertained with the concluding decision in case A428 dated May 2013.

On January 13, 2017, TIM was served notice of AGCM's final assessment, which recognized that TIM had complied in full with the A428 decision and, as such, the conditions for the imposition of a fine for non-compliance were not present.

AGCM (the Italian Competition Authority) recognizes, furthermore, that TIM's behavior subsequently to the 2013 proceedings has been directed towards continuous improvement of its performance in the supply of wholesale access services concerning not only the services which were the subject of the investigation, but also the new super-fast broadband access services. In assessing compliance, AGCM (the Italian Competition Authority) recognized the positive impact of the implementation, albeit not yet completed, of TIM's New Equivalence Model (NME). The AGCM decision orders TIM to: (i) proceed with the implementation of the NME until its completion which is expected to be by April 30, 2017; (ii) to inform the Authority about the performance levels of the systems for providing wholesale access services and about the completion of the corresponding internal reorganization plan by the end of May 2017. The Company quickly complied with both orders, and AGCOM communicated its satisfaction on August 9, 2017.

Vodafone lodged an appeal with the Lazio Regional Administrative Court against the final decision in the proceedings for non-compliance taken by AGCM (the Italian Competition Authority). TIM filed an appearance, as in the other lawsuits filed in March 2017 by the operators CloudItalia, KPNQWest Italia and Digitel.

Vodafone (A428)

In August 2013, Vodafone, as incorporating company of operator Teletu, submitted to the Milan Court a huge claim for damages for presumed abusive and anticompetitive behavior (founded principally on AGCM case A428) which TIM allegedly implemented in the period 2008 - 2013. The pecuniary claim was quantified by Vodafone as an estimated sum of between 876 million euros and 1,029 million euros.

In particular, Vodafone alleged technical boycotting activities, with refusal to activate lines requested for Teletu customers (in the period from 2008 to the month of June 2013), together with the adoption of allegedly abusive price policies for wholesale network access services (period from 2008 to the month of June 2013). Furthermore, the other party complained of the presumed application of discounts to business customers greater than those envisaged ("margin squeezing") and the carrying out of presumed illegal and anticompetitive win-back practices (in the period from the second half of 2012 to the month of June 2013).

TIM filed an appearance, challenging the claims made by the other party regarding the merits and the amount and making a counterclaim. Following the August 2016 decision by the Court of Cassation which confirmed that the Milan Court had jurisdiction to decide the dispute, the merits of the case will be decided at the hearing in December 2016.

With writ of summons before the Milan Court served in May 28, 2015, Vodafone filed additional damages claims, all based on the same AGCM A428 decision and referring to alleged damages suffered between July 2013 and December 2014 (and hence over a period subsequent to that of the damages claim reported above), for a total amount of around 568.5 million euros.

The case also contains a reservation of further damages to be quantified, during the proceedings, for the following periods, the claimant alleging that the presumed abusive conduct of TIM continued. TIM filed an appearance, challenging the claims made by the other party regarding the merits and the amount and making a counterclaim.

By order of October 6, 2016, the judge received Vodafone's application for the two A428 lawsuits brought by it to be joined. At the end of the reinstatement proceedings of December 21, the terms were established for the preliminary briefs and a hearing was fixed for July 11, 2017 for the admission of evidence. When the first preliminary brief was filed, following the favorable outcome for TIM of proceedings A428C (which confirmed the absence of improper conduct by the Company under A428 after 2011), Vodafone decided nonetheless to file further claims for 2015-2016, thus restating its total claim to be 1,812 million euros, which was also disputed and rebutted by TIM.

The case was settled as part of a global settlement with Vodafone.

Colt Technology Services

With writ of summons before the Milan Court served in August 2015, the operator Colt Technology Services filed a damages claim based on the A428 decision, requesting compensation for alleged damages suffered from 2009 to 2011 as a result of purportedly inefficient and discriminatory conduct by TIM in the wholesale service supply process. The damage claimed was quantified as 27 million euros in loss of profits for the alleged non-acquisition of new customers, or for the alleged impossibility of supplying new services to the customers it had already acquired; the other party also formulated a request for compensation for the damages to its image and commercial reputation. This case follows the extrajudicial claim for approximately 23 million euros, previously advanced by Colt in June 2015, which the Company rejected in its entirety. TIM filed an appearance, contesting all of the plaintiff's allegations.

COMM 3000 S.p.A. (formerly KPNQWest Italia S.p.A.)

With writ of summons before the Rome Court, COMM 3000 S.p.A.(formerly KPNQWest Italia S.p.A.) filed a damages claim for a total of 37 million euros in compensation for alleged anticompetitive and abusive conduct over the period 2009-2011, in the form of technical boycotting (refusals to activate wholesale services – KOs); the claim was based on the contents of the decision of AGCM (the Italian Competition Authority) that settled the A428 case. TIM filed an appearance, contesting all of the plaintiff's allegations. In the judgment with ruling in April 2019, the Court of Rome partially received the petitions of COMM 3000 S.p.A. (formerly KPNQWest Italia S.p.A.), sentencing TIM to pay an amount significantly lower than the amount in the counterparty's damages claim. In June 2019, TIM appealed against the judgment. In the judgment given in April 2021, the Court of Appeal of Rome partly upheld TIM's appeal, reducing the amount of the compensation due to COMM 3000, which was in any case entirely covered by the relevant provision. In November 2021, TIM has appealed to the Court of Cassation over the judgment of the Court of Appeal of Rome in.

Teleunit

With a writ of summons issued in October 2009 before the Milan Appeal Court, Teleunit asked that TIM alleged acts of abuse of its dominant position in the premium services market be ascertained. The plaintiff quantified its damages at a total of approximately 362 million euros. TIM filed an appearance, contesting the claims of the other party.

After the ruling of January 2014 with which the Court of Appeal declared that it was not competent in this matter and referred the case to the Court, Teleunit reinstated the case before the Milan Court the following April. TIM filed an appearance in the reinstated proceedings challenging the plaintiff's claims.

In its judgement of May 2017, the Milan Court rejected Teleunit's claim in its entirety, and ordered the company to pay the legal costs of the case. This judgement was appealed by Teleunit, in June 2017, before the Milan Court of Appeal. TIM filed an appeal challenging the arguments presented by the other party and asking that the judgement in the first instance be fully confirmed. With an order in March 2018 the Milan Court of Appeal declared Teleunit's appeal pursuant to art. 348-bis of the Italian Code of Civil Procedure to be manifestly without foundation, and hence inadmissible. In May 2018 Teleunit appealed the judgement of the Court of Appeal to the Court of Cassation. TIM lodged a counter-appeal seeking confirmation in full of the order being appealed (and thus of the judgment at first instance).

MC-Link

With writ of summons before the Rome Court, MC-Link filed a damages claim for a total of 51 million euros in compensation for alleged anticompetitive and abusive conduct over the period 2009-2012, in the form of technical boycotting (refusals to activate wholesale services – KOs). The claim was based on the contents of the decision of AGCM (the Italian Competition Authority) that settled the A428 case. TIM filed an appearance, contesting all of the plaintiff's allegations. In August 2021, the case was settled as part of a global settlement with the opposing party.

Eutelia and Clouditalia Telecomunicazioni

With a writ of summons dated May 2020, Eutelia in Extraordinary Administration and Clouditalia Telecomunicazioni S.p.A., purchaser of Eutelia's TLC branch, brought an action against TIM before the Court of Rome, making claims for damages, of around 40 million euros, for damages allegedly suffered, in the period 2009-2012, following the technical boycott and margin squeeze conduct, subject of the AGCM A428 procedure. TIM filed an appearance, contesting the claims made by the opposing party and formulating a counterclaim, subject to quantification of the damages incurred during the proceedings.

Antitrust Case I761

With a ruling issued on July 10, 2013, AGCM (the Italian Competition Authority) extended to TIM the investigation started in March of the same year into some firms active in the fixed network maintenance sector. The investigation aims to establish if an agreement exists that is prohibited under article 101 of the Treaty on the Functioning of the European Union. The proceedings were initiated after Wind filed two complaints in which AGCM (the Italian Competition Authority) was informed that, based on an invitation to bid for the assignment of network corrective maintenance services, it had encountered substantial uniformity of prices offered by the aforementioned enterprises and a significant difference from the offers submitted subsequently by other and different companies.

AGCM (the Italian Competition Authority) alleged that TIM carried out a role of coordinating the other parts of the procedure, both during the formulation of the offers requested by Wind and in relation to the positions represented to communications regulator AGCom.

TIM challenged these proceedings before the Administrative Court (TAR), sustaining that the ICA does not have competence in this matter.

On July 7, 2014, AGCM (the Italian Competition Authority) notified the objective extension of the proceedings to check if the Company, abusing its dominant position, put in place initiatives that might influence the conditions of the offer of accessory technical services when the offers of the maintenance businesses to Wind and Fastweb were being formulated. With the extension decision, the Authority also extended the closing date of the investigation, originally set for July 31, 2014, to July 31, 2015. This extension was also challenged before the Lazio Administrative Court (TAR) sustaining that the Italian Competition Authority does not have competence in this matter.

In November 2014, for reasons of procedural economy and also convinced that it was acting legitimately, TIM presented to the Authority a proposal of undertakings in order to resolve the competition concerns subject of the investigation. On December 19, 2014, AGCM (the Italian Competition Authority) issued its decision finding that the undertakings were not clearly unfounded and subsequently ordered their publication for market testing.

On March 25, 2015, AGCM (the Italian Competition Authority) definitively rejected the aforesaid undertakings, considering them not suitable for removing the anticompetitive aspects investigated.

On July 21, 2015 the Communication of the Results of the Investigation was served on the parties to the proceedings, in which the Offices of AGCM (the Italian Competition Authority) expressed their position in the sense of (i) archiving the complaints regarding the abuse of dominant position and (ii) confirming, instead, that there exists between TIM and the maintenance firms an agreement to coordinate the economic offers drawn up for Wind and Fastweb, and to prevent the unbundled supply of the ancillary technical services.

On December 16, 2015, the final order was issued, confirming the conclusions of the Communication of the Results of the Investigation, sustaining that, between 2012 and 2013, there existed an agreement that restricted competition, and as a result imposed a fine of 21.5 million euros on the Company, paid in March 2016. The relevant market is the corrective maintenance (assurance) market and, more precisely, the market for troubleshooting the TIM LLU lines. The purpose of the conduct maintained by the Company and the network firms would have been to limit competition and prevent the evolution of forms of unbundled supply of ancillary technical services.

TIM appealed the order before the Lazio Regional Administrative Court. In judgement no. 09554/2016 issued in September 2016, the appeal was dismissed, and the Company appealed this decision to the Council of State. On the outcome of the proceedings, with the ruling of December 2019, the Council of State, deciding in favor of TIM, annulled the AGCM I761 provision and referred the task of conducting a new investigation to AGCM (the Italian Competition Authority), within the limits that decided by the Council of State itself. In 2020, TIM obtained the return of amounts paid by way of sanction.

Following analysis, in a letter dated April 2, 2021, AGCM (the Italian Competition Authority) reported that it had archived case I761.

Vodafone (I761)

With a writ of summons before the Milan Court, Vodafone has sued TIM and some network companies, bringing claims for compensation from the Company for around 193 million euros for damages arising from alleged anti-competitive conduct censured in the known AGCM case I-761 (on corrective maintenance) referring to the period from 2011 to 2017.

Vodafone contests the alleged breach of the competition rules carried out by TIM, in the wholesale markets giving access to its fixed network (LLU lines; Bitstream; WLR), through the abuse of a dominant market position and an unlawful agreement with the maintenance companies to maintain the monopoly on the offer of corrective maintenance services on its network. Specifically, the restrictive agreement allegedly concerned the coordination, by the Company, of the economic terms and conditions contained in the bids for maintenance services prepared by the aforementioned companies for OAOs, with artificially high prices with respect to the cost of the maintenance included in the regulated access fee, with a view to discouraging the disaggregation of the service itself. The Company filed an appearance, contesting all of the other party's requests. The case was settled as part of a global settlement with Vodafone.

Antitrust Case A514

In June 2017 the Italian Competition Authority (AGCM) started proceedings A514 against TIM, to ascertain a possible abuse of its dominant market position in breach of article 102 of the "Treaty on the Functioning of the European Union". The proceedings were started based on some complaints filed in May and June 2017, by Infratel, Enel, Open Fiber, Vodafone and Wind Tre, and concerns a presumed abuse of TIM's dominant position in the market for wholesale access services and for retail services using the broadband and ultra-broadband fixed network. In particular, AGCM (the Italian Competition Authority) hypothesized that TIM had adopted conduct aimed at: i) slowing and hindering the course of the Infratel tender processes so as to delay, or render less remunerative the entry of another operator in the wholesale market; ii) preemptively securing customers on the retail market for ultra-broadband services by means of commercial policies designed to restrict the space of customer contendibility remaining for the competitor operators.

After the start of the proceedings, the Authority's officials carried out an inspection at some of TIM's offices in the month of July 2017. On November 2, 2017, TIM filed a defense brief in which, in support of the correctness of its actions, it challenged all the arguments that the conduct it had allegedly engaged in, and which was the subject of the case, was unlawful.

On February 14, 2018, AGCM (the Italian Competition Authority) resolved to extend the scope of the case to investigate further behavior concerning TIM's wholesale pricing strategy on the market for wholesale access to broadband and ultra-broadband, and the use of the confidential information of customers of the alternative operators.

On July 5, 2018 TIM filed proposed undertakings which, if accepted by the Authority, would close the investigation without any offense being established or sanction being administered. The undertakings were considered as admissible by the Authority, that market tested them in August and September.

On October 30, 2018, TIM replied to observations made by third parties and modified its proposed undertakings. With its decision notified on December 4, 2018, AGCM (the Italian Competition Authority) once and for all rejected the proposed series of undertakings as it considered them unsuitable in light of the objections raised.

On March 4, 2019, TIM requested AGCM (the Italian Competition Authority) for an extension of the deadline for closing the proceedings (initially set for May 31, 2019).

On April 10, 2019, AGCM (the Italian Competition Authority) resolved to extend the deadline for conclusion of the proceedings until September 30, 2019. On May 17, 2019, AGCM (the Italian Competition Authority) notified TIM of the results of the investigation (CRI). In the CRI, AGCM (the Italian Competition Authority) essentially confirmed the case for the prosecution outlined in the start-up and extension of the proceedings orders.

On June 12, 2019 AGCM (the Italian Competition Authority) extended the deadline for deposit of TIM's final defense to September 20, 2019 and set the final hearing for September 25, 2019.

On September 18, 2019, AGCM (the Italian Competition Authority) resolved to extend the deadline for conclusion of the proceedings until February 28, 2020.

On March 6, 2020, TIM was notified of the decision to close the investigation: AGCM (the Italian Competition Authority) ruled that TIM had abused its dominant position, finding that TIM had put in place an anti-competitive strategy designed to hinder the competitive development of investment in ultrabroadband network infrastructure.

The fine imposed on TIM for the anti-competitive offense is 116,099,937.60 euros. TIM appealed the aforementioned fine before the Lazio Regional Administrative Court (TAR). By judgment given on February 28, 2022, the Lazio Administrative Court rejected TIM's appeal; it now intends to bring an appeal before the Council of State by the legal deadline.

On June 25, 2020 TIM sent AGCM (the Italian Competition Authority) the so-called compliance report as ordered in the final provision. The hearing before the Lazio Regional Administrative Court was held on November 3, 2021. The Company is awaiting the judgement.

In May 2021, the Company paid the fine.

Open Fiber

In March 2020, Open Fiber (OF) sued TIM before the Court of Milan, claiming damages of 1.5 billion euros for alleged abuse of an exclusive and dominant position in relation to OF. The alleged actions consist of: (i) pre-emptive investments in FTTC networks in white areas; (ii) initiating specious legal action to obstruct Infratel tenders; (iii) spurious repricing of certain wholesale services; (iv) commercial lock-in offers on the retail market; (v) false disclosure to AGCom in connection with the approval of a wholesale offer and spreading rumors about TIM being interested in acquiring OF; (vi) discriminatory access conditions to TIM passive infrastructure. TIM filed an appearance, contesting the arguments of OF. Enel S.p.A. intervened in the proceedings, asking that TIM be ordered to compensate all damages suffered and being suffered by Enel and OF. During the course of the proceedings, this amount was increased to 2.6 billion euros.

Vodafone

In January 2021, Vodafone Italia S.p.A. summonsed TIM to the Court of Milan, making a claim for damages of approximately 100 million euros for damages allegedly suffered as a consequence of the unlawful conduct of TIM, as sanctioned by the AGCM (the Italian Competition Authority), with the provision that concluded case A514.

The conduct of TIM sanctioned by the Authority allegedly resulted in a slowing of the penetration of UBB infrastructures on the market of white areas and, consequently, the delayed or failed acquisition of new customers by Vodafone, as well as a hindrance to acquiring additional customers as a result of the alleged binding practices over the whole of national territory. TIM will file an appearance with a series of solid legal arguments for its own protection. The case was settled as part of a global settlement with Vodafone.

Fastweb

In February 2021, Fastweb S.p.A. summonsed TIM to the Court of Milan, making a claim for damages of approximately 996 million euros for damages allegedly suffered as a consequence of the unlawful conduct of TIM, as sanctioned by AGCM (the Italian Competition Authority), with the provision that concluded case A514, as well as allegedly opportunistic suspensions of activation orders sent by Fastweb.

Fastweb complains that TIM allegedly delayed the wholesale offer of ultrabroadband services by Open Fiber in the white areas, consequently slowing the offer of said services by Fastweb to its end customers in these areas; binding practices were implemented in relations with the end customer, hindering access to the market by alternative operators (including Fastweb). In addition, TIM allegedly instrumentally managed the supply process of wholesale access services to its fixed broadband and ultrabroadband network, opportunistically suspending the activation orders submitted by Fastweb and thereby hindering its activation of new customers. TIM filed an appearance laying out solid arguments refuting Fastweb's claims. In August 2021, the case was settled as part of a settlement with Fastweb.

Antitrust Case I799

At its meeting on February 1, 2017, AGCM (the Italian Competition Authority) initiated an investigation for possible breach of Article 101 of the TFEU (prohibition of agreements that restrict competition) against TIM S.p.A. and Fastweb S.p.A., following the signing of an agreement aimed at setting up a cooperative joint venture called Flash Fiber S.r.l.. TIM, in agreement with Fastweb, submitted to AGCM (the Italian Competition Authority) some amendments to the agreements signed, in the form of proposed undertakings, aimed at closing the investigation without any breach being ascertained and, therefore, without any fine.

On March 28, 2018, AGCM (the Italian Competition Authority) resolved to approve the undertakings, making them binding on the Parties, and closed the case without imposing any fine.

On January 30, 2019, TIM sent the planned annual report on the provided coverage to AGCM (the Italian Competition Authority), supplemented by a subsequent communication dated March 29, 2019. TIM transmitted further details to AGCM (the Italian Competition Authority) in July and AGCM acknowledged it on October 15, 2019. On January 31, 2020 TIM sent AGCM (the Italian Competition Authority) the third report on the implementation of the undertakings given. Finally, on January 29, 2021 TIM sent AGCM (the Italian Competition Authority) the fourth and final report on the implementation of the undertakings given.

On June 11, 2018 Open Fiber S.p.A. and Wind Tre S.p.A. filed separate appeals to the Lazio Regional Administrative Court (TAR) against the order closing case I799 with the acceptance of the undertakings. They allege that this order has a series of procedural and substantial defects.

Open Fiber S.p.A. also asked for the precautionary suspension of the order.

In a ruling of March 2020, the Regional Administrative Court rejected in full the appeal by Open Fiber. A hearing on the merits has not yet been scheduled for Wind Tre's appeal.

Vodafone

In June 2015 Vodafone issued proceedings for damages in the Milan Court for alleged abuse of a dominant position by TIM in the bitstream "NGA" and "VULA" fiber access services market, initially claiming around 4.4 million euros, increased to a figure ranging from 30 to 48.9 million euros.

The plaintiff complained that TIM allegedly had engaged in abusive conduct by way of aggressive price offers to win customers and by hindering Vodafone's access to the fiber network to make it more difficult for the party to provide ultra-broadband services to its customers.

TIM has filed an appearance, challenging the claims of the plaintiff in full and, subsequently, the revised estimate of damages made in 2016 during the case. The case was settled as part of a global settlement with Vodafone.

Eutelia and Voiceplus

In June 2009, Eutelia and Voiceplus asked that alleged acts of abuse by TIM of its dominant position in the premium services market (based on the public offer of services provided through so-called Non Geographic Numbers) be investigated. The complainants quantified their damages at a total of approximately 730 million euros.

The case follows a precautionary procedure in which the Milan Appeal Court prohibited certain behaviors of the Company relating to the management of some financial relations with Eutelia and Voiceplus concerning the Non Geographic Numbers, for which TIM managed the payments from the end customers, on behalf of such OLOs and in the light of regulatory requirements. After the ruling with which the Milan Court of Appeal accepted TIM's objections, declaring that it was not competent in this matter and referring the case to the Civil Court, Eutelia in extraordinary administration and Voiceplus in liquidation resubmitted the matter to the Milan Court. The first hearing took place in the month of March 2014. TIM filed an appearance challenging the claims of the other parties. After the collapse of Voiceplus, the Milan Court declared the case suspended, in an order in September 2015. The case was later resumed by Voiceplus.

With a judgment issued in February 2018, the Milan Court accepted TIM's defense and rejected the plaintiffs' claim for compensation, ordering them, jointly and severally, to pay the legal costs. In March 2018 Eutalia and Voiceplus proposed an appeal against the judgement in the first instance.

TIM appealed against the claim, requesting confirmation in full of the judgment in the first instance. The appeal of Eutelia and Voiceplus was fully rejected with the judgment of August 5, 2019. In December 2019 Eutelia and Voiceplus appealed to the Court of Cassation over the judgment of the Court of Appeal. TIM notified a counterclaim asking confirmation of the ruling appealed against.

28-day billing

AGCom resolution 121/17/CONS introduced instructions on billing intervals for telephony, prescribing, for fixed telephony, that the interval should be monthly, or multiples thereof, and, for mobile telephony, that it should be at least four-weekly. TIM appealed Resolution 121/17/CONS to the Regional Administrative Court. The judgment rejecting the appeal was published in February 2018. TIM appealed this judgment to the Council of State in June 2018. On September 23, 2020, the non-definitive ruling was published whereby the Council of State joined the appeals submitted by TIM, Vodafone, Fastweb and Wind Tre and ordered the prejudicial deferral to the European Union Court of Justice (EUCJ) on whether or not the Authority had the power to regulate the frequency of renewal of the commercial offers and invoicing periods, at the same time rejecting the other grounds of appeal submitted by the operators and suspending proceedings. In February 2021, TIM deposited the written observations on the requests for prejudicial judgment with the EUCJ. At the request of the CJEU, the Council of State, in an order published on November 23, 2021, confirmed the referral to the Court of Justice on the preliminary questions raised; the proceedings before the Council of State therefore remain suspended pending the CJEU's decision.

With its Resolution 499/17/CONS, having confirmed the breach of Resolution 121/17/CONS, AGCom fined TIM 1,160,000 euros, ordering it to make provision – when the billing cycle was restored to monthly intervals or multiples thereof – to return the amounts corresponding to the fee for the number of days that, from June 23, 2017, had not been used by the users in terms of the supply of service due to the misalignment of the four-weekly and monthly billing cycles.

In March 2018 with resolution no. 112/18/CONS AGCom (i) revoked the preceding resolution 499/17/CONS in the part in which TIM was ordered to repay the amounts presumably lost from June 23, 2017 onwards, with the four-weekly billing cycle, (ii) cautioned TIM, with regard to fixed-line voice services only, against postponing the starting date of invoices issued after the return to monthly invoicing by the same number of days as those presumably deducted starting from June 23, 2017 with the four-weekly invoicing cycle.

Under Presidential Decree 9/18/PRES, AGCom amended the provisions of Decision 112/18/CONS requiring the deferment of billing once the billing cycle was restored to monthly intervals, or multiples thereof, while also ordering that the timescales for complying with the order would be identified after hearings with the operators and the main consumer protection associations.

In July 2018, AGCom issued resolution 269/18/CONS, with which it set December 31, 2018 as the date by which the operators had to return to their fixed network customers a number of days of service equal to those eroded as an effect of 28-day billing, or propose to the affected customers any alternative compensatory measures, after having notified them to AGCom. TIM has appealed all of the above resolutions.

With the judgment published in November 2018, the TAR canceled the pecuniary administrative sanction of 1.16 million euros imposed with Resolution 499/17/CONS, and confirmed the obligation of restitutio in integrum to the fixed-line customers by December 31, 2018. TIM filed its preventive appeal before the Council of State to suspend the execution of said decision and, with its ruling of December 20, 2018, the Council of State, in upholding TIM's appeal, suspended the effectiveness of the aforesaid decision for the reversal order only, until May 21, 2019 while awaiting publication of the grounds for the judgment.

The date of the hearing to discuss the introductory appeal and additional grounds submitted in the meantime by TIM is still to be set. On July 12, 2019 the ruling mechanisms with which the Council of State rejected the similar appeals made by Vodafone, Wind Tre and Fastweb were published and in February 2020 the judgments containing the grounds were published.

In September 2019, TIM also challenged resolution 221/19/CONS, before the Regional Administrative Court (TAR), with which the sanction pursuant to Resolution 499/17/CONS, canceled by the Regional Administrative Court of Lazio, was recalculated to the amount of 580,000.00 euros, with the maximum fine provided for by Art. 98, paragraph 16 of the CCE in force at the time of the events applied.

In August 2019, AGCom initiated new proceedings (CONT 12/19/DTC) for failure to comply with the order to refund the days eroded by billing every 28 days for fixed network and convergent customers, according to the procedures established with resolutions nos. 112/18/CONS and 269/18/CONS. On conclusion of these proceedings, by means of Resolution 75/20/CONS, the Authority found that TIM did not comply with the above resolutions, imposing a fine of 3 million euros. The measure was challenged by TIM before the TAR in July 2020.

Moreover, since June 2019, TIM has offered its fixed network customers, active prior to March 31, 2018 and subject to billing every 28 days, the possibility of accepting a compensatory solution, an alternative to refunding the eroded days pursuant to AGCom resolution no. 269/18/CONS and from September 2019 it has been accepting requests for reimbursement of eroded days. In both cases, TIM informed customers with several messages in the bill, on the web in the main newspapers. The initiatives just described were communicated to AGCom as part of the aforementioned penalty proceedings.

In the civil proceedings, by judgment published on October 14, 2021 the Court of Milan, under the scope of the case on the merits brought by Associazione Movimento dei Consumatori in 2018 regarding the pricing and 28-day renewal for fixed line and converging offers, confirmed the order given on 6/4/2018 by the same Court upon closure of the complaint brought by TIM pursuant to Art. 669 terdecies of the Italian Code of Civil Procedure and the measures set out therein, ordering TIM to fulfill the requests for repayment of amounts paid as a result of customer maneuvers - including discontinued, as indeed TIM had already been doing since 2018, at the same time also extending the period relevant to the recognition of the reimbursement through to April 1, 2017 and therefore earlier than June 23, 2017, the date on which the operators had to comply with Resolution no. 121/17/CONS. TIM has appealed the sentence of the Court of Milan, at the same time filing an request for suspension of its enforcement. With order of January 11, 2022, the Court of Appeal of Milan partially accepted TIM's request, suspending the charge in the judgment relating to the order to send a registered letter to all discontinued consumer customers that were subject to billing every 28 days to inform them of the possibility to obtain a refund of the additional amounts paid as a result of the maneuver.

Antitrust Case I820

On February 19, 2018, AGCM (the Italian Competition Authority) initiated a I820 preliminary proceeding against the companies TIM, Vodafone, Fastweb, Wind Tre and the industry association ASSTEL to investigate the alleged existence of an agreement among the major fixed-line and mobile telephone operators to restrict competition by coordinating their respective commercial strategies, in breach of Art. 101 of the TFUE.

The presumed coordination, according to the opening provision of the proceedings by AGCM (the Italian Competition Authority), would take the form of implementation of the obligation introduced by Article 19-quinquiesdecies of Legislative Decree 148/2017 (converted by Law 172/2017) which requires operators of electronic communication services to send out monthly (or monthly multiples) bills and renewed offers for fixed and mobile services.

On March 21, 2018, AGCM (the Italian Competition Authority) issued a provisional precautionary measure against all the operators involved in the proceedings with which it ordered the suspension, pending the proceedings, of the implementation of the agreement concerning the determination of repricing communicated to users at the time of reformulating the billing cycle in compliance with Law 172/17 and to independently redetermine its commercial strategy. With its decision no. 27112 of April 11, 2018, AGCM (the Italian Competition Authority) confirmed the precautionary measure.

On June 12, 2018, TIM filed an appeal with the TAR for the quashing of said measure.

On January 31, 2020, TIM was notified of the decision to close the investigation, in which AGCM (the Italian Competition Authority) confirmed the existence of the agreement between Telecom, Vodafone, Fastweb, WindTre, but excluding Asstel from participation in the agreement. The fine imposed on TIM for participation in the anti-competitive agreement was 114,398,325 euros. In April 2020, TIM also challenged the sanction order.

In a ruling published on July 12, 2021, the Lazio Regional Administrative Court upheld the petition and the grounds added and submitted by TIM, canceling the measures taken by AGCM (the Italian Competition Authority), including that relating to the existence of the agreement and application of the sanction.

On September 11, 2021, AGCM (the Italian Competition Authority) presented a petition to the Council of State, requesting the cancellation of the judgment given by the regional administrative court.

Antitrust Case I850

By decision given on December 15, 2020, the Italian Competition Authority (AGCM) started an investigation in regard to the company Telecom Italia S.p.A., Fastweb S.p.A., Teemo Bidco S.r.l., FiberCop S.p.A., Tiscali Italia S.p.A. and KKR & Co. Inc., to ascertain the existence of any breaches of article 101 of the TFEU.

More specifically, the investigation regards the contracts governing the establishment and operation of FiberCop and the supply agreements with Fastweb and Tiscali. AGCM (the Italian Competition Authority) intends to verify that such agreements do not hinder competition between operators in the medium and long-term and assure the rapid modernization of the country's fixed telecommunications infrastructures.

On August 6, 2021, TIM submitted a proposal of undertakings to AGCM (the Italian Competition Authority) in order to resolve the competition concerns subject of the investigation and close the proceedings without any sanction being applied.

On September 7, 2021, AGCM (the Italian Competition Authority) judged these undertakings to not be clearly unfounded and ruled publication on the Authority's website from September 13, 2021; thus market testing began and was completed by October 13, 2021, the date by which all subjects so wishing submitted their observations to AGCM in respect of the relevant undertakings.

On December 14, 2021 AGCM (the Italian Competition Authority) extended the deadline for the conclusion of the proceedings, initially set for December 31, 2021, to February 15, 2022.

Precisely during the meeting held on February 15, 2022, AGCM finally resolved to approve the undertakings insofar as they were considered suitable to eliminate the alleged anti-competition aspects investigated and made them mandatory for the parties without assessing the alleged charges and without sanctions.

Antitrust Case I857

On July 6, 2021, AGCM (the Italian Competition Authority) started an investigation in regard to TIM and DAZN for a possible understanding reached with a view to restricting competition in connection with the agreement for the distribution and technological support for TV rights for Serie A football in the 2021-2024 period.

The investigation also aims to verify the restrictive nature of the understanding with reference to additional elements regarding the possible adoption by TIM of technical solutions not available for competitor telecommunications operators and which may effectively hinder the adoption of their own technological solutions.

The proceedings are expected to end by June 30, 2022.

At the same time, the Authority has also initiated proceedings for the potential adoption of protective measures.

By resolution passed on July 27, 2021, AGCM (the Italian Competition Authority) closed the interim proceedings, considering that the initiatives and amendments to the agreement proposed by TIM and DAZN in the meantime are presently able to prevent any serious and irreparable damage to competitors while investigations are completed.

Indeed, said measures aim, as a whole, to avoid possible discrimination in the use of the DAZN service, due to its activation by users using Internet connection services other than those offered by TIM. In addition, the agreement between TIM and DAZN has been amended to guarantee DAZN complete freedom in applying discounts and promotions. TIM has also undertaken to provide DAZN with a sufficient number of white label set-top-boxes to also guarantee DAZN customers the viewing of matches over digital terrestrial TV, in the event of connection problems.

Finally, TIM has undertaken to supply wholesale services to OAOs interested therein to manage traffic peaks deriving from live data transmissions, regardless of the type of contents transmitted.

On October 29, 2021 TIM submitted a proposal for undertakings to AGCM (the Italian Competition Authority) with a view to resolving the competitive concerns that were the subject of the investigation and closing the proceedings without the finding of any infringement and therefore without any sanction being applied.

On December 14, 2021, AGCM (the Italian Competition Authority) approved the publication of the aforementioned proposal for undertakings on the Authority's website, as these undertakings, taken as a whole, do not appear to be manifestly unfounded and are capable of removing the restrictions to competition hypothesized in the measure initiating the investigation in question.

On January 5, 2022, with the aforementioned publication on the AGCM website, the so-called market test began, which will end on February 4 next, the date by which all interested parties will be able to send the Authority their comments on the undertakings in question.

Antitrust Case PS10888 "TIM Passepartout"

On June 15, 2021, AGCM (the Italian Competition Authority) initiated proceedings for unfair commercial practice concerning the lack of transparency of the information provided by the TIM Passepartout payment management platform and alleged activations of services not requested. The proceedings have been initiated on the basis of reports made by individual consumers and should draw to a close in March 2022. On July 29, 2021, undertakings were submitted, thereafter supplemented on February 08, 2022, that, if accepted, will allow the proceedings to close without any findings of infringement and, therefore, without any application of sanctions. The undertakings consist of improving information aspects of the TIM Passepartout platform (active only for Customer Base offers) and implementing a communication campaign aimed at soliciting contact from those who do not recognize the TIM Passepartout charges in order to assess whether there are grounds for a refund. The procedure will be completed by the end of May 2022.

Vodafone Dispute – Universal Service

In a decision published in July 2015, the Council of State rejected the appeal lodged by AGCom and TIM against the judgment of the Lazio Administrative Court (TAR) on the financing of the universal service obligations for the period 1999–2003. With this judgement the judge had granted the appeals by Vodafone, annulling AGCom decisions 106, 107, 109/11/CONS on the renewal of the related proceedings, which included Vodafone among the subjects required to contribute, for a sum of approximately 38 million euros. Essentially, the judgement confirms that the Authority has not demonstrated the particular degree of "replaceability" between fixed and mobile telephony for mobile operators to be included among the subjects required to repay the cost of the universal service, which means that AGCom needs to issue a new ruling.

TIM has filed an application with AGCom to renew the proceedings, and an appeal against the judgement of the Court of Appeal to the Court of Cassation (which subsequently ruled that the appeal was inadmissible).

In April 2016 Vodafone appealed against the Ministry of Economic Development (MISE) and TIM to the Council of State, for non-compliance with the judgment of the Council of State. This appeal referred to AGCom decision 109/11/CONS (2003 yearly payment, on the basis of which Vodafone had paid the sum of approximately 9 million euros as contribution, restitution of which was requested).

In its judgment of November 2016, the Council of State rejected the appeal, referring to the Regional Administrative Court (TAR) the decision on the methods of compliance. In February 2017, Vodafone presented the Lazio Regional Administrative Court with four new appeals against the Ministry of Economic Development and TIM regarding observance of the ruling, upheld on appeal, countermanding the resolutions for the years 1999–2003 and repayment of the aforesaid amounts of around 38 million euros already paid to the Ministry of Economic Development as a contribution.

With a judgment issued in June 2018, the TAR rejected all of Vodafone's appeals for observance, and, as requested by TIM, expressly affirmed that AGCom must renew the proceedings, particularly with regard to the determination of the degree of replaceability between fixed and mobile telephony. Vodafone challenged the four judgments before the Council of State, which, with a decision of October 2019, upheld Vodafone's appeal and confirmed the restitutory obligation of the sums in question applicable to TIM.

With resolution no. 263/20/CIR, AGCom started proceedings to renew the investigation into the iniquity of the net cost of the universal service for 1999-2009. Vodafone has challenged this resolution before the Regional Administrative Court. The renewal proceedings concluded with resolution 18/21/CIR, which substantively confirmed the draft order. This resolution has only been challenged by TIM for the years 1999 and 2000, while Vodafone, Wind and Fastweb have challenged the resolution for all years concerned. By judgments published in February 2022, resolution 18/21/CIR was partially canceled. Assessments are currently in progress regarding whether it is appropriate or not to submit an appeal.

Dispute relative to "Adjustments on license fees" for the years 1994-1998

With regard to the judgements sought in previous years concerning the Ministry of Communications' request for payment of the balance of the amounts paid in concession charges for the years 1994-1998 (for a total of 113 million euros), the Administrative Court (TAR) for Lazio rejected the Company's appeal against the request for adjustment of the license fee for 1994 in the amount of approximately 11 million euros, 9 million euros of which against turnover not received due to bad debts. TIM lodged an appeal. On the outcome of proceedings, with the ruling of December 2019, the Council of State partially accepted TIM's position, establishing the principle, according to which, the receivables referring to 1994 not collected for reasons not attributable to the operator, could have been deducted from the tax base for calculating the concession fee.

With two further judgements the Administrative Court (TAR) for Lazio, reiterating the reasons expressed previously, also rejected the appeals in which the Company challenged the requests for payment of outstanding balances of license fees for the years 1995 and 1996-1997-1998, in the amount of approximately 46 million euros. TIM has appealed before the Council of State also against these judgements.

With reference to the 1998 fee adjustment (equal to about 41 million), the Lazio TAR, by TAR order of December 2018, suspended the judgment, raising preliminary questions with the EU Court of Justice on the correct scope of EC Directive no. 97/13 (in the matter of general authorizations and individual licenses in the field of telecommunications services on the basis of the currently pending litigation on the 1998 license fee, currently pending before the Rome Court of Appeal and illustrated in a subsequent paragraph).

The referred questions were based, inter alia, on the question posed to the Court of Justice on the possible conflict between the aforementioned EC Directive 97/13 and national law, which extended the obligation for telecommunications license-holders to pay the license fee for 1998 (commensurate with a portion of turnover), despite the liberalization process underway. In its judgment of March 2020, the EU Court of Justice held that the EU regulatory system must be interpreted as not allowing national legislation to extend to 1998 the obligation imposed on a telecommunications undertaking that was previously the concession holder (such as TIM) to pay a fee calculated on the basis of turnover and not only the administrative costs connected with the granting, management, control and implementation of the general authorizations and individual licenses scheme. The Court held, inter alia, that the Council of State – having held in its judgment 7506/2009 that the fee imposed for 1998 on TIM, the holder of an authorization existing on the date of entry into force of Directive 97/13, was due – interpreted national law in a way that was incompatible with EU law, as interpreted by the Court in its judgment of February 21, 2008. Following the judgment of the EU Court of Justice, the opinion on the final calculation of the 1998 charges was summarized before the Lazio Regional Administrative Court, which, in a judgment given last February, declared TIM's appeal as unacceptable for procedural reasons, namely due to the prevalence of the formal ruling consisting of judgment no. 7506/09; in substantive terms, on the other hand, the judgment of the EU Court of Justice once again ascertained the European Community unlawful nature of the credit claim by the PA to obtain payment of the 1998 charges and, consequently, the final balance. The company has challenged the judgment of the Lazio Regional Administrative Court.

Poste

There are some pending actions brought, at the end of the '90s, by Ing. C. Olivetti & C. S.p.A. (now TIM) against Poste, the Italian postal service, concerning non-payment of services delivered under a series of contracts to supply IT goods and services. The judgements issued in the lower courts established an outcome that was partially favorable to the ex-Olivetti, and have been appealed against by Poste in individual rehearings.
In this respect, while a 2009 judgement of the Rome Appeal Court confirmed one of the outstanding payables to TIM, another judgement by the same Court declared void one of the disputed contracts. After this judgement, Poste had issued a writ for the return of approximately 58 million euros, opposed by TIM given that the judgement of the Supreme Court for amendment of the above judgement is still pending.

After the 2012 judgement of the Supreme Court that quashed and remanded the decision of the Appeal Court on which the order was based, the Rome Court declared that the matter of issue in the enforcement proceedings was discontinued, since the claim made by Poste had been rejected. The judgement was resubmitted to another section of the Rome Appeal Court. In ruling no. 563 of January 25, 2019, the Rome Court of Appeal at the time of proceedings, reversing the Company's previous unfavorable appeal, confirmed the contract's validity and, with it, the legitimacy of TIM's view of the amount already collected, of which Poste had requested reimbursement. This ruling was challenged by Poste with appeal filed with the Court of Cassation, notified on July 31, 2019, which TIM challenged with relevant counter appeal.

Elinet S.p.A. Bankruptcy

In 2014, the trustees in the bankruptcy of Elinet S.p.A., and subsequently the trustees of Elitel S.r.l. and Elitel Telecom S.p.A. (the parent, at the time, of the Elitel group) appealed the judgment by which the Court of Rome dismissed the damages claim brought by the trustees of the Elinet-Elitel group, filing a new damages claim for a total of 282 million euros. The Company is alleged to have exercised management and control powers over the plaintiff, and, with it, over the Elitel group (an OLO in which TIM has never held any equity interest) through the management of trade receivables. TIM filed an appearance, challenging the claims made by the other party. The judgment on the appeal was handed down with ruling in July 2019, which with reference to TIM confirmed full legality of its conduct and total non-existence of any element of management and coordination. The receivers of Elinet S.p.A. and Elitel Telecom S.p.A. appealed to the Court of Cassation in January 2020 to obtain the annulment of the judgment in the second instance. The receiver of Elitel S.r.l. has not filed an appeal with the Court of Cassation and, consequently, the total claim for damages has been reduced to 244 million euros. TIM notified a counterclaim asking confirmation of the ruling appealed against.

Brazil - Opportunity Arbitration

In May 2012, TIM and Telecom Italia International N.V. (now merged in Telecom Italia Finance) were served with a notice of arbitration proceedings brought by the Opportunity group, claiming compensation for damages allegedly suffered for presumed breach of a settlement agreement signed in 2005. Based on the claimant's allegations, the damages relate to circumstances that emerged in the criminal proceedings pending before the Milan Court regarding, *inter alia*, unlawful activities engaged in by former employees of TIM.

The investigatory phase having been completed, the hearing for oral discussion took place in November 2014, after which the parties filed their concluding arguments in preparation for the decision on the case.

In September 2015, the Board of Arbitration declared the proceedings closed, as the award was going to be filed.

In September 2016 the ICC Court notified the parties of its judgment, based on which the Court of Arbitration rejected all the claims made by the Opportunity group and decided that the legal costs, administrative costs and costs for expert witnesses should be split between the parties (the "2016 Arbitration Award").

In April 2017 the Opportunity group filed an appeal against the 2016 Arbitration Award before the Paris Court of Appeal.

In November 2017, TIM and Telecom Italia Finance received from the Secretariat of the ICC's International Court of Arbitration notice of a Request for Revision of the 2016 Arbitration Award, filed by the Opportunity group, asking for a new award. A Board of Arbitration was subsequently established.

In October 2018, TIM and Telecom Italia Finance requested proceedings with the Paris Court of Appeal to be suspended, in the light of proceedings pending with the Court of Arbitration of the International Chamber of Commerce to review the same 2016 Arbitration Award. In November 2018, the Paris Court of Appeal suspended the proceedings until the decision is taken by the Court of Arbitration in the review proceedings.

As regards the proceedings to review the 2016 Arbitration Award, in October 2019 the ICC held the discussion hearing in Paris. In August 2020, the Arbitration Court issued the award rejecting the Request for Revision presented by the Opportunity Group (the "2020 Arbitration Award"). In December 2020, the Opportunity group filed an appeal against the 2020 Arbitration Award before the Paris Court of Appeal. In May 2021 the Opportunity group asked the Paris Court of Appeal to summarize the proceedings brought against the 2016 Arbitration Award.

Iliad

By summons served during the first quarter of 2020, Iliad Italia S.p.A. sued TIM before the Court of Milan for alleged anti-competitive conduct, including through the Kena Mobile brand, which was allegedly aimed at hindering its entry to and consolidation in the mobile phone market in Italy, seeking damages of at least 71.4 million euros.

TIM filed an appearance, fully disputing the requests of Iliad Italia S.p.A.; and, in turn, submitting a counterclaim in accordance with Art. 2598 of the Italian Civil Code, with reference to the denigration implemented by Iliad Italia S.p.A. in regard to TIM and formulating a symmetrical claim for compensation for damages. In the first preliminary brief, Iliad updated its claim for damages, taking it to 242.8 million euros. Upon lifting the reservation on the preliminary motions, the Court adjourned the hearing to May 4, 2022 for the closing arguments.

Iliad

By writ of summons notified in September 2021, Iliad Italia S.p.A. summonsed TIM before the Court of Milan for the alleged application to customers of unlawful contractual conditions in terms of time limits and economic costs for withdrawal with reference to mobile and fixed telephone offers, with a consequent petition to order TIM to compensate damages, currently quantified as 120.4 million euros. On February 1, 2022, the first hearing was held and the terms assigned for the briefs pursuant to article 183, subsection VI of the Italian Code of Civil Procedure.

T-Power

By writ of summons notified in December 2021, T-Power s.r.l., former Agent for the consumer sector, summonsed TIM before the Court of Rome to have the right acknowledged to receive payment of a total maximum amount of approximately 85 million euros by way of commission, compensation in lieu of notice and termination of employment, as well as compensation for damages. The first hearing is scheduled for April 27, 2022.

b) Other information

Mobile telephony - criminal proceedings

In March 2012 TIM was served notice of the conclusion of the preliminary inquiries, which showed that the Company was being investigated by the Public Prosecutor of Milan pursuant to the Legislative Decree n. 231/2001, for the offenses of handling stolen goods and counterfeiting committed, according to the alleged allegations, by fourteen employees of the so-called “ethnic channel”, with the participation of a number of dealers, for the purpose of obtaining undeserved commissions from TIM.

The Company, as the injured party damaged by such conduct, had brought two legal actions in 2008 and 2009 and had proceeded to suspend the employees involved in the criminal proceedings (suspension later followed by dismissal). It has also filed an initial statement of defense, together with a technical report by its own expert, requesting that the proceedings against it be suspended, and that charges of aggravated fraud against the Company be brought against the other defendants. In December 2012, the Public Prosecutor's Office filed a request for 89 defendants and the Company itself to be committed for trial.

During the preliminary hearing, the Company was admitted as civil party to the trial and, in November 2013, the conclusions in the interest of the civil party were filed, reaffirming TIM's total lack of involvement in the offenses claimed.

At the end of the preliminary hearing, which took place in March 2014, the Judge for the Preliminary Hearing committed for trial all the defendants (including TIM) who had not asked for their situation to be settled with alternative procedures, on the grounds that “examination in a trial” was needed. In April 2016, at the end of the first part of the trial, the Public Prosecutor asked for TIM to be sentenced to pay an administrative fine of 900 thousand euros, but decided not to ask for confiscation of any of the presumed profits of the offenses (quantified in the committal proceedings as totaling several million euros), based on the assumption that TIM had in any event remedied the presumed organizational inadequacies. While acknowledging the considerable redimensioning of the accusations, the Company has reiterated its total non-involvement in the facts at issue. In November 2016 the Court gave a verdict acquitting the Company on the grounds that there was no case to answer. All the individuals charged were also acquitted on various grounds.

The Public Prosecutor appealed the acquittal and appealed to the Court of Cassation "per saltum”. In January 2019, the Italian Supreme Court of Cassation agreed to the appeal and therefore ordered that the documents of the proceedings be sent to the Milan Court of Appeal.

The proceedings were assigned to Chambers IV of the Milan Court of Appeal and are awaiting scheduling of the hearing.

Dispute concerning the license fees for 1998

TIM has issued civil proceedings against the office of the Prime Minister for compensation of the damage caused by the Italian State through appeal judgement no.7506/09 by the Council of State that, in the view of the Company, violates the principles of current European community law.

The main claim which the proceedings are founded on is based on community jurisprudence that recognizes the right to assert the responsibility of the State in relation to violation of rights recognized in community law and injured by a judgement that has become definitive, in respect of which no other remedy may be applied. The judgement of the Council of State definitively denied TIM the right to obtain restitution of the concession charge for 1998 (totaling 386 million euros for Telecom Italia and 143 million euros for the former TIM Company, plus interest), already denied by the Lazio regional administrative court despite the favorable and binding opinion of the European Court of Justice in February 2008. This judgement concerned the conflict between EC Directive 97/13 on general authorizations and individual licenses in the telecommunications services industry, and the national regulations that had deferred, for 1998, the obligation to pay the fee payable by telecommunications concession holders, despite the intervening deregulation process. The Company then proposed an alternative compensation claim, within the sphere of the same proceedings, for tort pursuant to art. 2043 of the Italian Civil Code. The compensation claimed has been quantified as approximately 529 million euros, plus legal interest and revaluation. The Avvocatura di Stato filed an appearance and submitted a counterclaim for the same sum. The case is subject to eligibility analysis by the Court, which declared the inadmissibility of TIM's main claim (case for damages for manifest breach of community law pursuant to law 117/88). However, this decision was amended in favor of the Company on appeal. In March 2015 the Rome Court issued its judgement in the first instance, declaring the Company's application inadmissible.

In 2015, TIM has appealed the decision, and the case is now pending the hearing specifying the nature of the forms of order sought. The Court of Appeal has scheduled the hearing for closing arguments for April 2, 2019. Thereafter, without any new procedural activities having taken place, the Court of Appeal incontrovertibly deferred the hearing for closing arguments first to 2020 and then to 2021 (from when the terms for conclusion and replies shall run, which will be followed shortly thereafter by the issue of the judgment). These deferrals were followed by the latest, of January 15, 2021, scheduling the new hearing for January 25, 2022.

On the matters underlying the case, the following must be noted:

- on the considered lack of jurisdiction of the Court of Rome (concerned by the judgment of the Court of Rome appealed by TIM) to judge the liability of the Italian government for the work of senior magistrates (in the case in point, the Council of State), which would have led to the declared inadmissibility of the claim in accordance with Art. 5, law no. 117/1978 (old text) - the United Chambers of the Court of Cassation ruled with judgment no. 14842 on June 7, 2018, confirming the jurisdiction of the Court of Rome and, therefore, the correctness of TIM's choice to base its lawsuit in the Court of Rome;
- on the unlawful nature of the conduct of the Italian government - and, therefore, on the liability of the State-Court in accordance with Law no. 117/1998 - once again, the EU Court of Justice has ruled, deciding on the prejudicial matter raised by the Lazio TAR in other, connected proceedings, in its judgment given on March 4, 2020 in C-34/19, stressing that TIM was not required to pay the charges demanded by the State for 1998 and, therefore, confirming the clear violation by the Council of State of European Community law (also because in clear conflict with the decision already given by the EU Court of Justice on February 21, 2008 in C-296/06, as, moreover, already ruled by the Court of Appeal of Rome, Chambers I, in Decree of January 31, 2012, which sanctioned the procedural admissibility of TIM's lawsuit);
- on the matter of the right to repeat the charges paid for 1998 - the Court of Cassation ruled in its judgment no. 18603 given on September 7, 2020, rejecting the appeal brought by the Presidency of the Council against the judgment whereby the Court of Appeal of Rome had upheld the claim for compensation made by Vodafone (payment of charges for 1998) for the same title in separate proceedings.

In short, the company paid the charges disputed in 1998; it promptly challenged the administrative provision that had unfairly required said payment, before the administrative court; the administrative proceedings before the Council of State concluded negatively in 2009 (despite the recalled opposite judgment of the European Court of Justice); the civil proceedings of first instance concluded in March 2015 with a judgment of rejection for grounds of admissibility (then solved in the sense indicated by the company with the referenced judgment of Cassation in United Chambers no. 14842/18) and more than 6 years after the first instance judgment - going from deferral to deferral - the appeal judgment (that could only uphold the mentioned judgments of the Court of Justice and the Court of Cassation) has not yet been issued (nor, on the basis of these repeated deferrals, can the company forecast when it will be given).

The company is examining the various scenarios and legal claims (national, European Community, etc.) that may contribute towards defining the appeal dispute. It is considered, in fact, that the principles of the reasonable duration of the trial, in accordance with subsection 2 of article 111 of the Constitution and in accordance with article 6 of the European Convention on Human Rights, are violated by these events, considering: (i) the year in which payment was made of the undue charges is 1998; (ii) the value of these charges is approximately 529 million euros plus interest from that date; (iii) the extremely long procedural process has not even led to an appeal judgment (started in 2015 and with an unpredictable conclusion, given the continuous deferrals); (iv) the circumstance that the legal matter appears to be readily able to be settled, as not one but two judgments have already been given by the EU Court of Justice declaring payment of the charges to be incompatible with European Community legislation (judgments that have currently been ignored by the national court).

As part of the aforementioned analyzes aimed at reaching a definition of the appeal sentence, it should be pointed out that on January 25, 2021 the company filed a request with the Rome Court of Appeal to bring forward the hearing (postponed, as mentioned, to January 25, 2022) in order to avoid yet another postponement of the case, which, as we know, concerns the non-compliance with two inter partes decisions, on the same matter, by the Court of Justice of the European Union for a clear violation of European law by the State-Judge. With a ruling on February 8, 2021, the Rome Court of Appeal (second section specializing in corporate matters) deemed it could grant the request for an advance ruling, setting the hearing for November 30, 2021. On that date the case was taken to decision with the assignment of the legal terms for closing statements and replies.

Vodafone (previously TELETU)

By writ of summons of February 2012, TIM summonsed the operator TeleTu (today incorporated into Vodafone) to the Court of Rome for having unduly impeded customers intending to return to TIM. The damages claim has been quantified for approximately 93 million euros. By judgment of December 2020, the Court ascertained that from July 2008 to October 2011, TELETU pursued illegal competition pursuant to art. 2598 of the Italian Civil Code in connection with requests for migration to TIM, ordering it to compensate TIM for the amount of 1,378,000 euros plus interest and revaluation, which was paid by Vodafone. As part of a global settlement with Vodafone, the parties have agreed to abstain from challenging this judgment.

Other liabilities related to the sale of assets and shareholdings

As part of agreements for the sale of assets and companies, the TIM Group has undertaken guarantees to indemnify the buyers for liabilities mainly connected with legal, tax, social security, and labor law issues, for an amount normally set as a percentage of the purchase price.

To cover such contingent liabilities, amounting to a total of around 250 million euros, provisions totaling approximately 10 million euros have been allocated solely for those cases for which payment is considered likely.
Furthermore, we report that in relation to the disposal of assets and investments, the TIM Group has undertakings to pay additional indemnities under specific contractual provisions, the contingent liability of which cannot be measured at present.

C) Commitments and guarantees

Guarantees, net of back-to-back guarantees received, amounted to 54 million euros.

The guarantees provided by third parties to Group companies, amounting to 6,894 million euros, related to guarantees provided by banks and other financial institutions as a guarantee of the proper performance of contractual obligations.

In particular, we report:

- the TIM Group had six bank guarantees issued in favor of the Ministry of Economic Development for a total of 1,922 million euros for the deferment of the payment of the amount due for the acquisition of user rights to frequencies in the 694-790 MHz, 3600-3800 MHz and 26.5-27.5 GHz bands, which will be reserved for 5G mobile telecommunications services in Italy. At December 31, 2021, the remaining guarantee was 1,738 million euros;
- the insurance guarantees, which totaled 930 million euros, mainly refer to guarantee financing by the TIM Group in applying legal provisions for contracts of Public Administrations and similar bodies;
- the TIM Group had bank guarantees issued in favor of INPS in support of the application - by TIM and some Group companies - of Article 4 of Italian Law 92 of June 28, 2012, for the voluntary redundancy of employees meeting the requirements; the total amount of the guarantees issued is 1,422 million euros, of which 1,360 million euros for TIM S.p.A. and 62 million euros for Group companies.

Lastly, in May 2018, TIM issued a surety to the Prime Minister's Office for 74.3 million euros to secure an appeal to the Lazio Administration Court for a provisional stay of the administrative fine levied on TIM following the preliminary investigation connected with the penalty proceeding initiated under Article 2 of Decree Law 21 of 3/15/2012 (the "Golden Power" law).

There are also surety bonds on the telecommunication services in Brazil for 653 million euros.

d) Assets guaranteeing financial liabilities

The special rate loan contracts granted by the Brazilian Development Bank BNDES (Banco Nacional de Desenvolvimento Econômico e Social) to TIM S.A. to a total value of 63 million euros are covered by specific covenants. In the event of non-compliance with the covenant obligations, BNDES will have a right to the receipts which transit on the bank accounts of the company.

NOTE 25
REVENUES

These decreased by 489 million euros compared to 2020. The breakdown is as follows:

(million euros)	2021	2020
Equipment sales	1,411	1,402
Services	13,905	14,403
Total	**15,316**	**15,805**

Revenues from telecommunications services are presented gross of amounts due to other TLC operators, equal to 1,264 million euros (1,198 million euros in 2020), included in Costs of services.

Revenues from services in 2021 include revenues for voice and data services on fixed and mobile networks for Retail customers for 8,203 million euros and for other Wholesale operators for 2,805 million euros.

For a breakdown of revenues by operating segment/geographical area, reference should be made to the Note "Segment Reporting".

NOTE 26
OTHER INCOME

This item rose by 61 million euros compared to 2020. The figure breaks down as follows:

(million euros)	2021	2020
Late payment fees charged for telephone services	39	46
Recovery of employee benefit expenses, purchases and services rendered	12	14
Capital and operating grants	28	34
Damages, penalties and recoveries connected with litigation	27	24
Estimate revisions and other adjustments	71	59
Special training income	67	13
Other	28	21
Total	**272**	**211**

NOTE 27
ACQUISITION OF GOODS AND SERVICES

This item rose by 377 million euros compared to 2020. The figure breaks down as follows:

(million euros)		2021	2020
Acquisition of raw materials and goods	**(a)**	**1,266**	**1,203**
Costs of services:			
Revenues due to other TLC operators		1,264	1,198
Costs for telecommunications network access services		119	116
Commissions, sales commissions and other selling expenses		974	996
Advertising and promotion expenses		212	196
Professional and consulting services		253	216
Utilities		434	435
Maintenance costs		291	277
Outsourcing costs for other services		378	348
Mailing and delivery expenses for telephone bills, directories and other materials to customers		38	46
Other service expenses		718	706
	(b)	**4,681**	**4,534**
Lease and rental costs:			
Rent and leases		51	51
TLC circuit subscription charges		96	87
Other lease and rental cost		456	298
	(c)	**603**	**436**
Total	**(a+b+c)**	**6,550**	**6,173**

In 2021, non-recurring operating costs related to procurement and miscellaneous costs of approximately 4 million euros were incurred, which were necessary to manage the health emergency related to COVID-19. For more details, see the Note "Significant non-recurring Events and Transactions".

In 2021, lease and rental costs included around 11 million euros in short-term lease payments of modest value (approximately 11 million euros in 2020).

NOTE 28
EMPLOYEE BENEFITS EXPENSES

This item rose by 302 million euros compared to 2020. The figure breaks down as follows:

(million euros)		2021	2020
Ordinary employee expenses			
Wages and salaries		1,794	1,804
Social security costs		651	647
Other employee benefits		148	146
	(a)	**2,593**	**2,597**
Costs and provisions for temp work	**(b)**	—	—
Miscellaneous expenses for personnel and other labor-related services rendered			
Charges for termination benefit incentives		8	1
Corporate restructuring expenses		336	38
Other		4	3
	(c)	**348**	**42**
Total	**(a+b+c)**	**2,941**	**2,639**

Employee benefits expenses mainly related to the Domestic Business Unit for 2,703 million euros (2,401 million euros in 2020) and to the Brazil Business Unit for 237 million euros (236 million euros in 2020).

"Company restructuring expenses" came to 336 million euros (38 million euros in 2020) and are mainly related to the 2021 recording of the expenses connected with the application of the trade union agreements signed by the Parent company with the trade unions on March 8, 2021 and on April 23, 2021 and the agreements signed respectively on March 15, 2021 by the company Olivetti, on April 27, 2021 by the company Noovle S.p.A. and on May 6, 2021 by the company Telecom Italia Sparkle.

In 2021, non-recurring costs were incurred for approximately 1 million euros, made necessary to address the COVID-19 health emergency. For more details, see the Note "Significant non-recurring Events and Transactions".

The average salaried workforce, including personnel with temp work contracts, stood at 47,942 employees in 2021 (49,099 in 2020). A breakdown by category is as follows:

(number of units)	2021	2020
Executives	612	587
Middle managers	4,154	4,083
Workers	43,110	44,420
Blue collars	54	—
Employees on payroll	**47,930**	**49,090**
Employees with temp work contracts	12	9
Total average salaried workforce	**47,942**	**49,099**

Headcount in service at December 31, 2021, including personnel with temp work contracts, stood at 51,929 employees (52,347 at December 31, 2020), showing a decrease of 418 employees.

NOTE 29
OTHER OPERATING EXPENSES

This item rose by 541 million euros compared to 2020. The figure breaks down as follows:

(million euros)	2021	2020
Write-downs and expenses in connection with credit management	305	423
Provision charges	704	43
TLC operating fees and charges	189	199
Indirect duties and taxes	99	96
Penalties, settlement compensation and administrative fines	127	120
Association dues and fees, donations, scholarships and traineeships	12	12
Other	66	68
Total	**1,502**	**961**
of which, included in the supplementary disclosure on financial instruments	*305*	*423*

“Provision charges” for 2021 include a non-recurring 548 million euros for the posting of a Contractual Risk Provision for Onerous Contracts (IAS 37) relating to ongoing relations with some counterparties for the offer of multimedia content.

In 2021, non-recurring operating costs were also incurred as a consequence of the COVID-19 emergency for a total of 20 million euros, mainly referring to provisions and expenses connected with credit management following the worsening of the expected credit loss of corporate customers of the Parent Company TIM S.p.A., connected with the expected evolution of the pandemic.

For more details, see the Note “Significant non-recurring Events and Transactions”.

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

NOTE 30
INTERNALLY GENERATED ASSETS

These decreased by 27 million euros compared to 2020. The breakdown is as follows:

(million euros)	2021	2020
Intangible assets with a finite useful life	216	231
Tangible assets	259	271
Total	**475**	**502**

They mainly refer to the capitalization of labor costs relating to design, construction and testing of network infrastructure and systems, as well as software development and development of network solutions, applications and innovative services.

NOTE 31
DEPRECIATION AND AMORTIZATION

These decreased by 126 million euros compared to 2020. The breakdown is as follows:

(million euros)		2021	2020
Amortization of intangible assets with a finite useful life			
Industrial patents and intellectual property rights		1,043	1,152
Concessions, licenses, trademarks and similar rights		466	473
Other intangible assets		2	2
	(a)	**1,511**	**1,627**
Depreciation of tangible assets owned			
Buildings (civil and industrial)		35	35
Plant and equipment		2,095	2,115
Manufacturing and distribution equipment		9	11
Other		145	140
	(b)	**2,284**	**2,301**
Amortization of rights of use assets			
Property		343	397
Plant and equipment		314	252
Other tangible assets		37	39
Intangible assets		1	—
	(c)	**695**	**688**
Total	(a+b+c)	**4,490**	**4,616**

For further details refer to the Notes "Intangible assets with a finite useful life", "Tangible assets" and "Rights of use assets".

For a breakdown of depreciation and amortization by operating segment/geographical area, reference should be made to the Note "Segment Reporting".

NOTE 32
GAINS/(LOSSES) ON DISPOSALS OF NON-CURRENT ASSETS

This item was broken down as follows:

(million euros)		2021	2020
Gains on disposals of non-current assets:			
Gains on the retirement/disposal of intangible, tangible and user rights on rental		15	29
	(a)	**15**	**29**
Losses on disposals of non-current assets:			
Losses on the retirement/disposal of intangible, tangible and user rights on rental		14	40
	(b)	**14**	**40**
Total	(a-b)	**1**	**(11)**

NOTE 33

IMPAIRMENT REVERSALS (LOSSES) ON NON-CURRENT ASSETS

This item was broken down as follows:

(million euros)		2021	2020
Reversals of impairment losses on non-current assets:			
on intangible assets		—	—
on tangible assets		—	—
	(a)	**—**	**—**
Impairment losses on non-current assets:			
on intangible assets		4,120	—
on tangible assets		—	8
	(b)	**4,120**	**8**
Total	**(a-b)**	**(4,120)**	**(8)**

The impairment losses for the year 2021 amounted to 4,120 million euros and related to the goodwill impairment loss attributed to the Domestic Cash Generating Unit.

In accordance with IAS 36, goodwill is not subject to amortization, but is tested for impairment on at least an annual basis, when preparing the company's consolidated financial statements.

With reference to the Domestic Cash Generating Unit (CGU), the impairment test, conducted during the preparation of the 2021 Annual Financial Report, took as a reference the flows of the new 2022-2024 Industrial Plan - which, based on the results of the 2021 final accounting, reflects realistic aspects on future developments and outlines all the actions to create value for shareholders - on the basis of the projections up to 2026, assuming the use of domestic market assets in continuity with the conditions as at December 31, 2021 and using a discount rate updated to the financial market conditions as at December 31, 2021.

The configuration of the recoverable amount is the Fair Value estimated on the basis of the income approach, which has highlighted a value reduction of 4,120 million euros of goodwill attributed to the Domestic Cash Generating Unit.

Impairment testing of the Brazil Cash Generating Unit did not reveal any reduction in the value of goodwill allocated to it. The valuation was based on the Market Cap of TIM Brasil as at December 31, 2021 and highlighted a positive difference between the book value of the CGU and Fair Value.

Further details are provided in the Note "Goodwill".

NOTE 34

OTHER INCOME (EXPENSES) FROM INVESTMENTS

Details are as follows:

(million euros)	2021	2020
Dividends from Other investments	1	—
Net gains on the sale of investments in associates and joint ventures accounted for using the equity method	119	452
Other income	6	2
Total	**126**	**454**
of which, included in the supplementary disclosure on financial instruments	3	2

In 2021, the item mainly included the net capital gain (119 million euros) recognized following the dilution from 100% to 49% of the equity investment of the Brazilian subsidiary TIM S.A. in I-Systems S.A. (formerly FiberCo Soluções de Infraestrutura S.A.), a company established by TIM S.A. for the segregation of its network assets and the provision of infrastructure services, following the completion of the agreement between TIM S.A. and IHS Fiber Brasil - Cessão de Infraestruturas Ltda.

In 2020 the item mainly included the net capital gain recognized following the dilution from 60% to 37.5% of the TIM Group's stake in the capital of INWIT S.p.A. as a result of the merger of INWIT with Vodafone Towers (441 million euros) and the capital gains deriving from the sale of additional share packages equal, in total, to 7.3% of INWIT's share capital (11 million euros).

NOTE 35
FINANCE INCOME AND EXPENSES

Finance income (expenses) showed a net expense of 1,150 million euros (expense of 1,179 million euros in 2020) and comprises:

(million euros)	2021	2020
Finance income	1,124	1,143
Finance expenses	(2,274)	(2,322)
Net finance income/(expenses)	**(1,150)**	**(1,179)**

The items break down as follows:

(million euros)		2021	2020
Interest expenses and miscellaneous finance expenses:			
Interest expenses and other costs relating to bonds		(839)	(872)
Interest expenses to banks		(51)	(65)
Interest expenses to others		(24)	(20)
Interest expenses on financial lease liabilities		(271)	(283)
		(1,185)	**(1,240)**
Commissions		(61)	(74)
Miscellaneous finance expenses (*)		(126)	(124)
		(187)	**(198)**
Interest income and other finance income:			
Interest income		75	55
Income from financial receivables, recorded in Non-current assets		8	2
Income from securities other than investments, recorded in Non-current assets		—	—
Income from securities other than investments, recorded in Current assets		20	11
Miscellaneous finance income (*)		39	27
		142	**95**
Total net finance interest/(expenses)	**(a)**	**(1,230)**	**(1,343)**
Other components of financial income and expense:			
Net exchange gains and losses		39	(51)
Net result from derivatives		117	109
Net fair value adjustments to fair value hedge derivatives and underlyings		(4)	3
Net fair value adjustments to non-hedging derivatives		(72)	103
Total other components of financial income and expense	**(b)**	**80**	**164**
Total net financial income (expenses)	**(a+b)**	**(1,150)**	**(1,179)**
of which, included in the supplementary disclosure on net financial instruments		*(936)*	*(876)*

(*) of which IFRS 9 impact:

(million euros)	2021	2020
Income from negative adjustment of IFRS 9 impairment reserve on financial assets measured at FVTOCI	*4*	*1*
Expenses from positive adjustment of IFRS 9 impairment reserve on financial assets measured at FVTOCI	*(1)*	*(2)*
Income/Expenses from IFRS 9 reserve impairment on financial assets measured at FVTOCI	*3*	*(1)*
Reversal of IFRS 9 impairment reserve on financial assets measured through FVTOCI	*5*	*1*
Impairment losses on financial assets other than investments	*—*	*—*

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

For greater clarity of presentation, the net effects relating to derivative financial instruments are summarized in the following table:

(million euros)		2021	2020
Foreign currency conversion gains		411	393
Exchange losses		(372)	(444)
Net exchange gains and losses		**39**	**(51)**
Income from fair value hedge derivatives		33	47
Charges from fair value hedge derivatives		—	—
Net result from fair value hedge derivatives	**(a)**	**33**	**47**
Positive effect of the reversal of the Reserve for fair value adjustment of cash flow hedge derivatives to the income statement (interest rate component)		366	376
Negative effect of the reversal of the Reserve of cash flow hedge derivatives to the income statement (interest rate component)		(295)	(309)
Net effect of the Reversal of the Reserve of cash flow hedge derivatives to the income statement (interest rate component)	**(b)**	**71**	**67**
Income from non-hedging derivatives		43	6
Charges from non-hedging derivatives		(30)	(11)
Net result from non-hedging derivatives	**(c)**	**13**	**(5)**
Net result from derivatives	**(a+b+c)**	**117**	**109**
Positive fair value adjustments to fair value hedge derivatives		—	46
Negative fair value adjustments relating to financial assets and liabilities underlying fair value hedge derivatives		—	(44)
Net fair value adjustments	**(d)**	**—**	**2**
Positive fair value adjustments to Underlying financial assets and liabilities of fair value hedge derivatives		50	6
Negative fair value adjustments relating to fair value hedge derivatives		(54)	(5)
Net fair value adjustments	**(e)**	**(4)**	**1**
Net fair value adjustments to fair value hedge derivatives and underlyings	**(d+e)**	**(4)**	**3**
Positive fair value adjustments to non-hedging derivatives	(f)	79	174
Negative fair value adjustments to non-hedging derivatives	(g)	(151)	(71)
Net fair value adjustments to non-hedging derivatives	**(f+g)**	**(72)**	**103**

NOTE 36
PROFIT (LOSS) FOR THE YEAR

The profit (loss) for the year can be analyzed as follows:

(million euros)	2021	2020
Profit (loss) for the year	**(8,400)**	**7,352**
Attributable to:		
Owners of the Parent:		
Profit (loss) from continuing operations	(8,652)	7,224
Profit (loss) from Discontinued operations/Non-current assets held for sale	—	—
Profit (loss) for the year attributable to owners of the Parent	**(8,652)**	**7,224**
Non-controlling interests:		
Profit (loss) from continuing operations	252	128
Profit (loss) from Discontinued operations/Non-current assets held for sale	—	—
Profit (loss) for the year attributable to Non-controlling interest	**252**	**128**

NOTE 37
EARNINGS PER SHARE

		2021	2020
Basic earnings per share			
Profit (loss) for the year attributable to owners of the Parent		(8,652)	7,224
Less: additional dividends for the savings shares (0.011 euros per share and up to capacity)		—	(66)
	(million euros)	(8,652)	7,158
Average number of ordinary and savings shares	(millions)	21,205	21,080
Basic earnings per share – Ordinary shares	(euros)	(0.40)	0.34
Plus: additional dividends per savings share		—	0.01
Basic earnings per share – Savings shares	(euros)	(0.40)	0.35
Basic earnings per share from continuing operations			
Profit (loss) from continuing operations attributable to Owners of the Parent		(8,652)	7,224
Less: additional dividends for the savings shares		—	(66)
	(million euros)	(8,652)	7,158
Average number of ordinary and savings shares	(millions)	21,205	21,080
Basic earnings per share from continuing operations – Ordinary shares	(euros)	(0.40)	0.34
Plus: additional dividends per savings share		—	0.01
Basic earnings per share from continuing operations – Savings shares	(euros)	(0.40)	0.35
Basic earnings per share from Discontinued operations/Non-current assets held for sale			
Profit (loss) from Discontinued operations/Non-current assets held for sale	(million euros)	—	—
Average number of ordinary and savings shares	(millions)	21,205	21,080
Basic earnings per share from Discontinued operations/Non-current assets held for sale – Ordinary shares	(euros)	—	—
Basic earnings per share from Discontinued operations/Non-current assets held for sale – Savings shares	(euros)	—	—

	2021	2020
Average number of ordinary shares	15,177,486,840	15,051,766,083
Average number of savings shares	6,027,791,699	6,027,791,699
Total	**21,205,278,539**	**21,079,557,782**

		2021	2020
Diluted earnings per share			
Profit (loss) for the year attributable to owners of the Parent		(8,652)	7,224
Dilution effect of stock option plans and convertible bonds (*)		—	42
Less: additional dividends for the savings shares (0.011 euros per share and up to capacity)		—	(66)
	(million euros)	(8,652)	7,200
Average number of ordinary and savings shares	(millions)	21,205	22,163
Diluted earnings per share – Ordinary shares	(euros)	(0.40)	0.33
Plus: additional dividends per savings share		—	0.01
Diluted earnings per share – Savings shares	(euros)	(0.40)	0.34
Diluted earnings per share from continuing operations			
Profit (loss) from continuing operations attributable to Owners of the Parent		(8,652)	7,224
Dilution effect of stock option plans and convertible bonds (*)		—	42
Less: additional dividends for the savings shares		—	(66)
	(million euros)	(8,652)	7,200
Average number of ordinary and savings shares	(millions)	21,205	22,163
Diluted earnings per share from continuing operations – Ordinary shares	(euros)	(0.40)	0.33
Plus: additional dividends per savings share		—	0.01
Diluted earnings per share from continuing operations – Savings shares	(euros)	(0.40)	0.34
Diluted earnings per share from Discontinued operations/Non-current assets held for sale			
Profit (loss) from Discontinued operations/Non-current assets held for sale	(million euros)	—	—
Dilution effect of stock option plans and convertible bonds		—	—
Average number of ordinary and savings shares	(millions)	21,205	22,163
Diluted earnings per share from Discontinued operations/Non-current assets held for sale – Ordinary shares	(euros)	—	—
Diluted earnings per share from Discontinued operations/Non-current assets held for sale – Savings shares	(euros)	—	—

	2021	2020
Average number of ordinary shares (*)	15,177,486,840	16,134,874,545
Average number of savings shares	6,027,791,699	6,027,791,699
Total	**21,205,278,539**	**22,162,666,244**

(*) The average number of ordinary shares also includes the potential ordinary shares relating to the equity compensation plans of employees for which the (market and non-market) performance conditions have been met, in addition to the theoretical number of shares that are issuable as a result of the conversion of the unsecured equity-linked convertible bond. Consequently, the "Net profit (loss) for the year attributable to owners of the Parent" and the "Profit (loss) from continuing operations attributable to owners of the Parent" were also adjusted to exclude the effects, net of tax, related to the above-mentioned plans and to the convertible bond (+42 million euros in 2020). For what concerns 2021, these effects were not included in the calculation of diluted earnings per share because, based on the provisions of IAS 33, they are antidilutive.

Future potential changes in share capital

The table below shows future potential changes in share capital, based on the issuance of the convertible bond by TIM S.p.A. in March 2015, in the plans for long-term share incentives, still outstanding at December 31, 2021:

	Number of maximum shares issuable	**Share capital** (thousands of euros)	**Additional paid-in capital** (thousands of euros)	**Subscription price per share** (euros)
Capital increases already approved (ordinary shares)				
2020-2022 Long Term Incentive Plan (free issue)	180,000,000			
Stock Options	**180,000,000**			
2015 Convertible Bond (ordinary shares)(*)	1,138,239,144	2,000,000	N.A.	N.A.
Bonds	**1,138,239,144**	**2,000,000**		
Total	**1,318,239,144**	**2,000,000**		

(*) The number of shares potentially issuable shown may be subject to adjustments.

Further information is provided in the Notes "Non-current and current financial liabilities" and "Equity compensation plans".

NOTE 38
SEGMENT REPORTING
a) Segment reporting

The operating segments of the TIM Group, organized for the telecommunications business and the relative geographical location are as follows:

- **Domestic**: includes the activities in Italy relating to voice and data services on fixed and mobile networks for end customers (retail) and other operators (wholesale), the activities of the Telecom Italia Sparkle group which, at international level (in Europe, the Mediterranean and South America), develops fiber optic networks for wholesale customers, the operations of the company FiberCop S.p.A. for the provision of passive access services on the secondary copper and fiber network, the activities of Noovle S.p.A.(Cloud and Edge Computing solutions), the activities of Olivetti (Information Technology products and services) and support structures for the Domestic sector;
- **Brazil**: includes mobile and fixed telecommunications operations in Brazil (TIM S.A.);
- **Other Operations**: include the financial companies (Telecom Italia Capital S.A. and Telecom Italia Finance S.A.) and other minor companies not strictly related to the TIM Group's core business.

In view of the decision-making process adopted by the TIM Group, segment reporting is presented for financial operating data.

The results of financial management, income taxes for the year, as well as gains (losses) from Discontinued operations / Non-current assets held for sale are presented at a consolidated level.

Separate Consolidated Income Statement by Operating Segment

(million euros)	Domestic		Brazil		Other Operations		Adjustments and eliminations		Consolidated Total	
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Third-party revenues	12,477	12,874	2,839	2,931	—	—	—	—	15,316	15,805
Intragroup revenues	28	31	1	2	—	—	(29)	(33)	—	—
Revenues by operating segment	**12,505**	**12,905**	**2,840**	**2,933**	**—**	**—**	**(29)**	**(33)**	**15,316**	**15,805**
Other income	259	200	13	11	—	—	—	—	272	211
Total operating revenues and other income	**12,764**	**13,105**	**2,853**	**2,944**	**—**	**—**	**(29)**	**(33)**	**15,588**	**16,016**
Acquisition of goods and services	(5,534)	(5,129)	(1,037)	(1,070)	(3)	(3)	24	29	(6,550)	(6,173)
Employee benefits expenses	(2,703)	(2,401)	(237)	(236)	(1)	(1)	—	(1)	(2,941)	(2,639)
of which: accruals to employee severance indemnities	(1)	(1)	—	—	—	—	—	—	(1)	(1)
Other operating expenses	(1,211)	(639)	(282)	(318)	(8)	(5)	(1)	1	(1,502)	(961)
of which: write-downs and expenses in connection with credit management and provision charges	(896)	(334)	(113)	(132)	—	—	—	—	(1,009)	(466)
Change in inventories	17	(13)	(7)	8	—	—	—	(1)	10	(6)
Internally generated assets	397	416	72	79	—	—	6	7	475	502
EBITDA	**3,730**	**5,339**	**1,362**	**1,407**	**(12)**	**(9)**	**—**	**2**	**5,080**	**6,739**
Depreciation and amortization	(3,595)	(3,677)	(895)	(939)	—	—	—	—	(4,490)	(4,616)
Gains/(losses) on disposals of non-current assets	(5)	(19)	6	8	—	—	—	—	1	(11)
Impairment reversals (losses) on non-current assets	(4,120)	(8)	—	—	—	—	—	—	(4,120)	(8)
EBIT	**(3,990)**	**1,635**	**473**	**476**	**(12)**	**(9)**	**—**	**2**	**(3,529)**	**2,104**
Share of profits (losses) of associates and joint ventures accounted for using the equity method	40	18	(2)	—	—	—	—	—	38	18
Other income (expenses) from investments									126	454
Finance income									1,124	1,143
Finance expenses									(2,274)	(2,322)
Profit (loss) before tax from continuing operations									**(4,515)**	**1,397**
Income tax expense									(3,885)	5,955
Profit (loss) from continuing operations									**(8,400)**	**7,352**
Profit (loss) from Discontinued operations/Non-current assets held for sale									—	—
Profit/(Loss) for the year									**(8,400)**	**7,352**
Attributable to:										
Owners of the Parent									**(8,652)**	**7,224**
Non-controlling interests									252	128

Revenues by operating segment

(million euros)	Domestic		Brazil		Other Operations		Adjustments and eliminations		Consolidated Total	
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Revenues from equipment sales - third party	1,322	1,300	88	102	—	—	1	—	1,411	1,402
Revenues from equipment sales - intragroup	—	—	—	—	—	—	—	—	—	—
Total revenues from equipment sales	**1,322**	**1,300**	**88**	**102**	**—**	**—**	**1**	**—**	**1,411**	**1,402**
Revenues from services - third party	11,155	11,574	2,751	2,829	—	—	(1)	—	13,905	14,403
Revenues from services - intragroup	28	31	1	2	—	—	(29)	(33)	—	—
Total revenues from services	**11,183**	**11,605**	**2,752**	**2,831**	**—**	**—**	**(30)**	**(33)**	**13,905**	**14,403**
Total third-party revenues	12,477	12,874	2,839	2,931	—	—	—	—	15,316	15,805
Total intragroup revenues	28	31	1	2	—	—	(29)	(33)	—	—
Total revenues by operating segment	**12,505**	**12,905**	**2,840**	**2,933**	**—**	**—**	**(29)**	**(33)**	**15,316**	**15,805**

Purchases of intangible assets, tangible assets and rights of use assets by operating segment

(million euros)	Domestic		Brazil		Other Operations		Adjustments and eliminations		Consolidated Total	
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Purchase of intangible assets	1,204	1,004	682	193	—	—	—	—	1,886	1,197
Purchase of tangible assets	2,095	1,682	570	456	—	—	—	—	2,665	2,138
Purchase of rights of use assets	304	843	442	519	—	—	—	—	746	1,362
Total purchase of intangible assets, tangible assets and rights of use assets	**3,603**	**3,529**	**1,694**	**1,168**	**—**	**—**	**—**	**—**	**5,297**	**4,697**
of which: capital expenditures	*3,377*	*2,748*	*1253*	*661*	—	—	—	—	*4,630*	*3,409*
of which: increases in lease/leasing contracts for right of use assets	*226*	*781*	*441*	*507*	—	—	—	—	*667*	*1,288*

Headcount by Operating Segment

(number of units)	Domestic		Brazil		Other Operations		Consolidated Total	
	12/31/2021	12/31/2020	12/31/2021	12/31/2020	12/31/2021	12/31/2020	12/31/2021	12/31/2020
Headcount	**42,591**	**42,925**	**9,325**	**9,409**	**13**	**13**	**51,929**	**52,347**

Assets and liabilities by Operating Segment

(million euros)	Domestic		Brazil		Other Operations		Adjustments and eliminations		Consolidated Total	
	12/31/2021	12/31/2020	12/31/2021	12/31/2020	12/31/2021	12/31/2020	12/31/2021	12/31/2020	12/31/2021	12/31/2020
Non-current operating assets	40,805	44,736	5,332	5,098	1	1	1	(1)	46,139	49,834
Current operating assets	3,794	3,755	864	845	19	19	(37)	(35)	4,640	4,584
Total operating assets	44,599	48,491	6,196	5,943	20	20	(36)	(36)	50,779	54,418
Investments accounted for using the equity method	2,725	2,728	253	—	—	—	1	—	2,979	2,728
Discontinued operations /Non-current assets held for sale									—	—
Unallocated assets									15,429	16,088
Total Assets									**69,187**	**73,234**
Total operating liabilities	10,890	10,535	1,671	1,191	29	29	(81)	(82)	12,509	11,673
Liabilities directly associated with Discontinued operations/Non-current assets held for sale									—	—
Unallocated liabilities									34,639	32,721
Equity									22,039	28,840
Total Equity and Liabilities									**69,187**	**73,234**

b) Reporting by geographical area

(million euros)		Revenues				Non-current operating assets	
		Breakdown by location of operations		Breakdown by location of customers		Breakdown by location of operations	
		2021	2020	2021	2020	12/31/2021	12/31/2020
Italy	(a)	12,189	12,638	11,557	12,018	40,542	44,477
Overseas	(b)	3,127	3,167	3,759	3,787	5,597	5,357
Total	**(a+b)**	**15,316**	**15,805**	**15,316**	**15,805**	**46,139**	**49,834**

c) Information about major customers

None of the TIM Group's customers exceeds 10% of consolidated revenues.

NOTE 39
RELATED-PARTY TRANSACTIONS

The following tables show the figures relating to related-party transactions and the impact of those amounts on the separate consolidated income statement, consolidated statements of financial position and consolidated statements of cash flows.

Related-party transactions, when not dictated by specific laws, were conducted at arm's length. They were performed in compliance with the internal procedure, which sets forth rules designed to ensure the transparency and fairness of the transactions in accordance with Consob Regulation 17221/2010. The current procedure is available on the website gruppotim.it, under the Group section/Governance Tools channel.

It should be noted that during the second half of 2021, Cassa Depositi e Prestiti and its subsidiaries were included in the scope of related companies, on the basis of assessments in this regard performed by the TIM S.p.A. Related Parties Committee.

The effects of the related-party transactions on the TIM Group separate consolidated income statement line items for 2021 and 2020 are as follows:

SEPARATE CONSOLIDATED INCOME STATEMENT LINE ITEMS 2021

(million euros)	**Total** (a)	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Key managers	**Total related parties** (b)	% of financial statement item (b/a)
Revenues	15,316	31	31			**62**	0.4
Other income	272	1	11			**12**	4.4
Acquisition of goods and services	6,550	355	142			**497**	7.6
Employee benefits expenses	2,941			74	34	**108**	3.7
Other operating expenses	1,502	3				**3**	0.2
Depreciation and amortization	4,490	50				**50**	1.1
Finance income	1,124		1			**1**	0.1
Finance expenses	2,274	18				**18**	0.8

(*) Vivendi Group and companies belonging to the group that it belongs to; Cassa Depositi e Prestiti (CDP) and its subsidiaries and other related parties through Directors, Statutory Auditors and Key Managers.

SEPARATE CONSOLIDATED INCOME STATEMENT LINE ITEMS 2020

(million euros)	**Total** (a)	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Key managers	**Total related parties** (b)	% of financial statement item (b/a)
Revenues	**15,805**	90	4			**94**	0.6
Other income	**211**	1				**1**	0.5
Acquisition of goods and services	**6,173**	250	113			**363**	5.9
Employee benefits expenses	**2,639**			73	16	**89**	3.4
Other operating expenses	**961**	2				**2**	0.2
Depreciation and amortization	**4,616**	39				**39**	0.8
Finance expenses	**2,322**	15				**15**	0.6

(*) Vivendi group and Companies belonging to the group that it belongs to; other related parties through directors, statutory auditors and key managers.

The effects of related-party transactions on the TIM Group consolidated statements of financial position line items at December 31, 2021 and 31 December, 2020, are as follows:

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION LINE ITEMS AT 12/31/2021

(million euros)	Total (a)	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Total related parties (b)	% of financial statement item (b/a)
Net financial debt						
Non-current financial receivables arising from lease contracts	(45)		(1)		**(1)**	2.2
Other non-current financial assets	(2,285)					—
Non-current financial liabilities for lease contracts	4,064	269			**269**	6.6
Current financial liabilities for financing contracts and others	5,945	1			**1**	—
Current financial liabilities for lease contracts	651	74			**74**	11.4
Total net financial debt	22,416	344	(1)		**343**	1.5
Other statement of financial position line items						
Rights of use assets	4,847	299	2		**301**	6.2
Trade and miscellaneous receivables and other current assets	4,358	24	56		**80**	1.8
Miscellaneous payables and other non-current liabilities	1,413	2	25		**27**	1.9
Trade and miscellaneous payables and other current liabilities	9,473	182	60	23	**265**	2.8

(*) Vivendi Group and companies belonging to the group that it belongs to; Cassa Depositi e Prestiti (CDP) and its subsidiaries and other related parties through Directors, Statutory Auditors and Key Managers.

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION LINE ITEMS AT 12/31/2020

(million euros)	Total (a)	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Total related parties (b)	% of financial statement item (b/a)
Net financial debt						
Non-current financial liabilities for lease contracts	**4,199**	313			**313**	7.5
Current financial liabilities for lease contracts	**631**	50			**50**	7.9
Other statement of financial position line items						
Right of use assets	**4,992**	347			**347**	7.0
Trade and miscellaneous receivables and other current assets	**4,346**	57	4		**61**	1.4
Miscellaneous payables and other non-current liabilities	**3,602**	2	1		**3**	0.1
Trade and miscellaneous payables and other current liabilities	**6,588**	101	40	22	**163**	2.5

(*) Vivendi group and Companies belonging to the group that it belongs to; other related parties through directors, statutory auditors and key managers.

The effects of the related-party transactions on the significant TIM Group consolidated statements of cash flows line items for 2021 and 2020 are as follows:

CONSOLIDATED STATEMENT OF CASH FLOWS LINE ITEMS 2021

(million euros)	Total (a)	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Total related parties (b)	% of financial statement item (b/a)
Purchases of intangible assets, tangible assets and right of use assets on an accrual basis	5,297	8	15		23	0.4
Dividends paid	368		51		51	13.9

(*) Vivendi Group and companies belonging to the group that it belongs to; Cassa Depositi e Prestiti (CDP) and its subsidiaries and other related parties through Directors, Statutory Auditors and Key Managers.

CONSOLIDATED STATEMENT OF CASH FLOWS LINE ITEMS 2020

(million euros)	Total (a)	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Total related parties (b)	% of financial statement item (b/a)
Purchases of intangible assets, tangible assets and right of use assets on an accrual basis	4,697	378			378	8.0
Dividends paid	390		36		36	9.2

(*) Vivendi group and Companies belonging to the group that it belongs to; other related parties through directors, statutory auditors and key managers.

Transactions with associates, subsidiaries of associates and joint ventures

The most significant amounts are summarized as follows:

SEPARATE CONSOLIDATED INCOME STATEMENT LINE ITEMS

(million euros)	2021	2020	TYPE OF CONTRACT
Revenues			
INWIT S.p.A.	42	89	Voice and data transmission services for company use, Desktop Management ICT services, IRU transfer of Dark Optic Fiber and Local Infrastructure, Easy IP ADSL service, property leasing, maintenance services, administrative outsourcing and electricity supply.
I-Systems S.A.	1		Services supplied by TIM S.A.
NordCom S.p.A.	1	1	Fixed and mobile voice services, equipment, data network connections and outsourcing.
TIMFin S.p.A.	(13)		Mobile and fixed voice services, outsourced services, fees and margins for miscellaneous costs for loans.
Total revenues	**31**	**90**	
Other income	**1**	1	Recovery of seconded personnel costs, recovery of centralized expenses.
Acquisition of goods and services			
INWIT S.p.A.	341	242	Supply of services for BTS sites, power supply systems for the supply of electricity of the hosted devices, monitoring and security services (alarms) and management and maintenance services, remote management and monitoring of the electricity consumption of TIM technological infrastructures (BTS) hosted at INWIT sites
I-Systems S.A.	5		Supply of multimedia communication services and capacity services.
W.A.Y. S.r.l.	8	6	Supply, installation and technical assistance services for geolocation equipment provided as part of offers to TIM customers, software development.
Other minor companies	1	2	
Total acquisition of goods and services	**355**	**250**	
Other operating expenses	**3**	**2**	Penalties for breach of contract on maintenance management services to INWIT S.p.A.
Depreciation and amortization	**50**	**39**	Amortization of rights of use related to the recognition of greater non-current assets amortized over the residual contractual term, towards INWIT S.p.A.
Finance expenses			
INWIT S.p.A.	15	15	Finance expenses for interest related to financial liabilities for rights of use.
TIMFin S.p.A.	3		Finance expenses for commission and miscellaneous finance expenses.
Total finance expenses	**18**	**15**	

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION LINE ITEMS

(million euros)	12/31/2021	12/31/2020	TYPE OF CONTRACT
Net financial debt			
Non-current financial liabilities for lease contracts	269	313	Non-current financial liabilities related to the recognition of rights of use for lease liabilities with INWIT S.p.A.
Current financial liabilities for lease contracts	74	50	Current financial liabilities related to the recognition of rights of use for lease liabilities with INWIT S.p.A.
Current financial liabilities for financing contracts and others	1		Financial liabilities for expenses on the transfer of receivables in respect of TIMFin S.p.A.
Other statement of financial position line items			
Right of use assets	299	347	Rights of use related to the recognition of greater non-current assets amortized over the residual contractual term, towards INWIT S.p.A.
Trade and miscellaneous receivables and other current assets			
INWIT S.p.A.	20	55	Voice and data transmission services for company use, Desktop Management ICT services, IRU transfer of Dark Optic Fiber and Local Infrastructure, Easy IP ADSL service, property leasing, maintenance services and administrative outsourcing.
I-Systems S.A.	1		Services supplied by TIM S.A.
W.A.Y. S.r.l.	2	2	Deferred costs for supply of customized platforms, application offers and fixed and mobile voice services.
Other minor companies	1	—	
Total trade and miscellaneous receivables and other current assets	24	57	
Miscellaneous payables and other non-current liabilities	2	2	Deferred contractual revenues from INWIT S.p.A.
Trade and miscellaneous payables and other current liabilities			
INWIT S.p.A.	171	98	Supply of services for BTS sites, monitoring and security services, management and maintenance services.
I-Systems S.A.	5		Supply of multimedia communication services and capacity services.
Movenda S.p.A.	1	1	Supply and certification of SIM-cards, software systems.
W.A.Y. S.r.l.	2	2	Supply, installation and technical assistance services for geolocation equipment provided as part of offers to TIM customers, software development.
TIMFin S.p.A.	3		Cost of the risk for loans.
Total trade and miscellaneous payables and other current liabilities	182	101	

CONSOLIDATED STATEMENT OF CASH FLOWS LINE ITEMS

(million euros)	2021	2020	TYPE OF CONTRACT
Purchases of intangible assets, tangible assets and right of use assets on an accrual basis			
INWIT S.p.A.	7	376	Higher value of rights of use as a result of new contracts or changes in existing lease contracts, IRU acquisition of backhauling connections, supply of plants, installation and related activations for the extension of indoor radio mobile coverage relative to TIM offerings to end customers.
Movenda S.p.A.	1	1	Supply and development systems software.
Other minor companies		1	
Total purchase of intangible, tangible and rights of use assets on an accrual basis	**8**	**378**	

At December 31, 2021, TIM S.p.A. had issued guarantees in favor of the joint venture Alfiere S.p.A. for 14 million euros.

Transactions with other related parties (through directors, statutory auditors and key managers, as well as participants in shareholder agreements pursuant to Article 122 of the Consolidated Law on Finance)

Details are provided below of the transactions with:

- Vivendi Group and the companies of the group that it belongs to;
- CDP Group (Cassa Depositi e Prestiti and Group subsidiaries);
- Companies related through Directors, Statutory Auditors and Key Managers with strategic responsibilities.

The most significant amounts are summarized as follows:

SEPARATE CONSOLIDATED INCOME STATEMENT LINE ITEMS

(million euros)	2021	2020	TYPE OF CONTRACT
Revenues			
Other Directors or through		3	Fixed-line and mobile voice services and devices.
Cassa Depositi e Prestiti Group	30		IRU transfer of rights to use dark fiber installation and infrastructures; supply of housing, dark fiber maintenance and dedicated GEA/Giganet connectivity services, fixed and mobile voice services and devices, Microsoft licenses, application outsourcing services, cloud services, maintenance services and electricity supply.
Vivendi group	1	1	Circuit rental services and feasibility study for routing and submarine cable interface solutions in America to the Vivendi Group.
Total revenues	**31**	**4**	
Other income	**11**		Reimbursement by a CDP Group company due to Telenergia following the judgment of the Council of State no. 5625-2021s, published on 07.30.2021.
Acquisition of goods and services			
Cassa Depositi e Prestiti Group	31		Purchases of products for resale under the scope of TIM offerings to end customers, TIM sales network POS terminal fleet rental charges, costs for the use of SWIFTNet network access infrastructures to send and receive FIN and File messages, service relatiing to information flows and devices through interbanking corporate banking (CBI) and puchase of electricity.
Havas Group	107	109	Purchase of media space on behalf of the TIM Group and, to a lesser extent, development and delivery of advertising campaigns.
Vivendi group	4	4	Purchase of musical and television digital content (TIMmusic, TIMvision), operative management of the Telecom Italia S.p.A. on-line store platform "TIM I Love Games" and related developments.
Total acquisition of goods and services	**142**	**113**	
Finance income	**1**		

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION LINE ITEMS

(million euros)	12/31/2021	12/31/2020	TYPE OF CONTRACT
Net financial debt			
Financial receivables and other current financial assets	**1**		Non-current financial receivables arising from lease contracts for Cassa Depositi e Prestiti.
Other statement of financial position line items			
Right of use assets	2		Financial leasing to Cassa Depositi e Prestiti.
Trade and miscellaneous receivables and other current assets			
Other Directors or through		3	Fixed-line and mobile voice services and devices.
Cassa Depositi e Prestiti Group	43		Relating mainly to IRU transfer of rights to use dark fiber installation and infrastructures; supply of housing, dark fiber maintenance and dedicated GEA/Giganet connectivity services, fixed and mobile voice services and devices, Microsoft licenses, application outsourcing services, cloud services, maintenance services
Havas Group	13		Prepaid expenses related to costs for advertising services.
Vivendi group		1	TV series rights.
Total trade and miscellaneous receivables and other current assets	**56**	**4**	
Miscellaneous payables and other non-current liabilities			
Cassa Depositi e Prestiti Group	23		Deferred subscription charges revenues.
Vivendi group	2	1	Deferred income for IRU sale.
Total miscellaneous payables and other non-current liabilities	**25**	**1**	
Trade and miscellaneous payables and other current liabilities			
Other Directors or through		1	
Cassa Depositi e Prestiti Group	21		Purchases of products for resale under the scope of TIM offerings to end customers, TIM sales network POS terminal fleet rental charges, costs for the use of SWIFTNet network access infrastructures to send and receive FIN and File messages, service relative to information flows and devices through interbanking corporate banking (CBI) and purchase of electricity.
Havas Group	37	37	Purchase of media space on behalf of the TIM Group and, to a lesser extent, development and delivery of advertising campaigns.
Vivendi group	2	2	Purchase of musical and television digital content (TIMmusic, TIMvision), operative management of the Telecom Italia S.p.A. on-line store platform “TIM I Love Games” and related developments.
Total trade and miscellaneous payables and other current liabilities	**60**	**40**	

CONSOLIDATED STATEMENT OF CASH FLOWS LINE ITEMS

(million euros)	2021	2020	TYPE OF CONTRACT
Purchases of intangible assets, tangible assets and right of use assets on an accrual basis	**16**		Development of the discovery phase and MYCanal+ platform supply for the TimVision Service towards the Vivendi Group.
Dividends paid			
Cassa Depositi e Prestiti Group	15		Dividends paid
Vivendi group	**36**	36	Dividends paid
Total Dividends paid	**51**	**36**	

Transactions with pension funds

The most significant amounts are summarized as follows:

SEPARATE CONSOLIDATED INCOME STATEMENT LINE ITEMS

(million euros)	2021	2020	TYPE OF CONTRACT
Employee benefits expenses			Contributions to pension funds.
Fontedir	9	9	
Telemaco	61	60	
Other pension funds	4	4	
Total employee benefits expenses	**74**	**73**	

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION LINE ITEMS

(million euros)	12/31/2021	12/31/2020	TYPE OF CONTRACT
Trade and miscellaneous payables and other current liabilities			Payables for contributions to pension funds.
Fontedir	3	3	
Telemaco	20	19	
Other pension funds	—		
Total trade and miscellaneous payables and other current liabilities	**23**	**22**	

Remuneration to key managers

In 2021, the total remuneration recorded on an accrual basis by TIM or by Group subsidiaries in respect of key managers amounted to 34 million euros (16 million euros for 2020). The figure breaks down as follows:

(million euros)	2021	2020
Short-term remuneration	9 [1]	11 [3]
Long-term remuneration		
Employment termination benefit incentives	18	2
Share-based payments (*)	7 [2]	3 [4]
Total	**34**	**16**

(*) These refer to the fair value of the rights, accrued to December 31, under the share-based incentive plans of TIM S.p.A. and its subsidiaries (Long Term Incentive and Plans of the subsidiaries).

[1] of which 1.2 million euros recorded by the subsidiaries;

[2] of which 1.0 million euros recorded by the subsidiaries;

[3] of which 1.0 million euros recorded by the subsidiaries;

[4] of which 0.4 million euros recorded by the subsidiaries.

Short-term remuneration is paid during the period it pertains to, at the latest within the six months following the end of that period and, in 2021, do not include the effects of the reversal of the accruals related to the 2020 costs amounting to 0.9 million euros.

The indemnities for early termination of employment for the year 2021 also include the amount paid to Mr. Luigi Gubitosi, amounting to 6.9 million euros.

In 2021, the contributions paid in to defined contribution plans (Assida and Fontedir) by TIM S.p.A. or by subsidiaries of the Group on behalf of key managers, amounted to 140,000 euros (135,000 euros at December 31, 2020).

In 2021, "Key managers", i.e. those who have the power and responsibility, directly or indirectly, for the planning, direction and control of the operations of the TIM Group, including directors, were the following:

Directors:		
Luigi Gubitosi	(1)	Managing Director and Chief Executive Officer of TIM S.p.A. General Manager
Pietro Labriola	(2)	General Manager of TIM S.p.A. Diretor Presidente TIM S.A.
Executives:		
Giovanna Bellezza	(3)	a.i. Head of Human Resources, Organization & Real Estate
Paolo Chiriotti	(4)	Head of Procurement
Simone De Rose	(5)	a.i. Head of Procurement
Michele Gamberini	(6)	Chief Technology & Information Office
	(7)	Chief Innovation & Information Office
Nicola Grassi	(8)	Head of Procurement
	(4)	Chief Technology & Operations Office
Stefano Grassi		Head of Security
Massimo Mancini	(5)	Chief Enterprise Market Office
Giovanni Gionata Massimiliano Moglia	(9)	Chief Regulatory Affairs & Wholesale Market Office
	(5)	Chief Regulatory Affairs Office
Carlo Nardello	(9)	Chief Strategy, Business Development & Transformation Office
Agostino Nuzzolo		Head of Legal & Tax
Claudio Giovanni Ezio Ongaro	(5)	a.i. Chief Strategy & Business Development Office
Federico Rigoni	(8)	Chief Revenue Officer
Giovanni Ronca		Chief Financial Office
Luciano Sale	(10)	Head of Human Resources, Organization & Real Estate
Stefano Siragusa	(6)	Chief Operations Office
	(11)	Chief Technology & Operations Office
	(12)	Chief Revenue Officer
	(13)	Chief Revenue, Information & Media Office
	(5)	Chief Network, Operations & Wholesale Office

(1) To November 26, 2021
(2) From November 27, 2021
(3) From November 30, 2021
(4) From July 5, 2021 to December 6, 2021
(5) From December 7, 2021
(6) To April 8, 2021
(7) From April 9, 2021 to September 20, 2021
(8) To July 4, 2021
(9) To December 6, 2021
(10) To November 29, 2021
(11) From April 9, 2021 to July 4, 2021
(12) From July 05, 2021 to September 20, 2021
(13) From September 21, 2021 to December 6, 2021

On January 21, 2022 the Board of Directors co-opted Pietro Labriola, who retains the office of General Manager, and appointed him as Chief Executive Officer, conferring on him all powers.

NOTE 40
EQUITY COMPENSATION PLANS

Equity compensation plans in force at December 31, 2021, are used for attraction and retention purposes, and as a long-term incentive for the managers and employees of the Group.

However, it should be noted that these plans do not have any significant effect on the economic result or on the financial position or on cash flows at December 31, 2021.

A summary is provided below of the plans in place at December 31, 2021.

Description of stock option plans

TIM S.A. Stock Option Plans

On April 10, 2014, the General Meeting of Shareholders of TIM Participações S.A. (now incorporated into TIM S.A.) approved the long-term incentive plan for managers in key positions in the company and its subsidiaries. Exercise of the options is not subject to the achievement of specific performance targets, but the strike price is adjusted upwards or downwards during each year for which the plan is in force, according to the ranking of the Total Shareholder Return of the TIM S.A. shares with respect to a panel of peers (made up of companies in the Telecommunications, Information Technology and Media industry).

The vesting period is 3 years (a third per year), the options can be exercised for 6 years, and the company does not have the legal obligation to repurchase or liquidate the options in cash, or in any other form.

Year 2014

On September 29, 2014, the grantees of the options were granted the right to purchase a total of 1,687,686 shares. At December 31, 2021, there are no options that can be exercised. Out of the total attributed, 1,558,043 options have been canceled (due to withdrawal of the participants from the company or for expiry of the exercise period), and 129,643 options have been exercised.

Year 2015

On October 16, 2015, the grantees of the options were granted the right to purchase a total of 3,355,229 shares. As of December 31, 2021, 100% of the options were considered as vested, and there are no options that can be exercised. Of the total options granted, 1,646,080 were canceled by participants leaving the company. All of the remaining balance (amounting to 1,709,149 options) has been exercised.

Year 2016

On November 8, 2016, the grantees of the options were granted the right to purchase a total of 3,922,204 shares.

At December 31, 2021, 100% of the options were considered as vested. Of the total options granted, 1,727,424 were canceled by participants leaving the company. Of the remaining balance (2,194,780 options), 2,082,228 options had been exercised and 112,552 could still be exercised.

Description of other compensation plans

TIM S.p.A. - Long Term Incentive Plan 2018-2020

Following approval of the 2020 financial statements, the parameter of stock performance has not reached the minimum level for accessing the premium, while the cumulative equity free cash flow parameter (30%) has reached an achievement level of 88.47% (between the minimum and target), thereby quantifying the number of shares accrued by beneficiaries as 6,715,617 shares, subject to a two-year lock-up from the accrual date.

TIM S.p.A. - Long Term Incentive Plan 2020-2022

The Shareholders' Meeting of April 23, 2020 approved the launch of the new rolling and equity based long-term incentive plan called LTI 2020-2022.

Each cycle of the plan is divided into two parties:

- **Performance Share**: free allocation of Company ordinary shares, the maturity of which is subject to an access gate linked to the value of the share and to two share and industrial performance conditions, given below.
- **Attraction/Retention Share**: free allocation of Company ordinary shares, the maturity of which is subject to the continuity of the employment relationship with TIM or TIM Group companies.

In relation to the Performance Share component, the performance conditions are as follows:

- access gate, represented by the value of the security, which at the end of each cycle must be equal to or greater than the value of the security at the start of the same cycle (refer to the normal value of the share equal to the average of the official closing prices of the Stock Exchange 30 days prior to the start and end of the Plan cycle);
- NFP/EBITDA ratio, with relative weighting equal to 40%;
- Relative performance (TSR) of the ordinary share compared to a basket of Peers, with a relative weighting of 60%.

A payout bonus/malus mechanism equal to 4% will be applied to both components (Performance Share and Attraction/Retention Share), linked, in equal measure,

- to the % growth of use of renewable energy out of total energy and to the reduction of indirect emissions of CO2 (2020-2022 cycle);
- to the % growth of use of renewable energy out of total energy and the increase in the female presence in the managerial population (2021-2023 cycle).

For the CEO, 100% of the Pay Opportunity is linked to the Performance Share component. For the remaining recipient managers, 70% of the Pay Opportunity is linked to the Performance Share and the remaining 30% to the Attraction/Retention Shares.

2020-2022 Cycle

On May 18, 2020, the Board of Directors launched the first cycle of the new Plan, for the three-year period 2020-2022, simultaneously assigning it to the CEO. At December 31, 2021, the first incentive cycle intended for 140 resources establishes the right of beneficiaries to receive 57,388,194 shares upon reaching the target, without prejudice to:

- the gate condition and application of the ESG correction for performance shares;
- application of the ESG correction and continuity of the contract of employment for attraction/retention shares.

2021-2023 Cycle

On April 28, 2021, the Board of Directors resolved the start of the second 2021-2023 cycle of incentives of the 2020-2022 Long Term Incentive Plan, at the same time assigning it to the CEO. The second cycle, like the first, is aimed at the Chief Executive Officer, Top Management and a selected segment of TIM Group's management.

At December 31, 2021, the cycle provides for the 153 recipients to be entitled to receive an award of 55,878,929 shares upon achievement of the target, subject to:

- the gate condition and application of the ESG correction for performance shares;
- application of the ESG correction and continuity of the contract of employment for attraction/retention shares.

TIM S.p.A. – Broad-Based Share Ownership Plan 2020

In implementation of the resolutions passed on April 23, 2020 by the Extraordinary Shareholders' Meeting and subsequently on May 18, 2020 by the Board of Directors of Telecom Italia S.p.A., on June 16, 2020 the campaign to subscribe to the 2020 Diffuse Share Ownership Plan was opened, closing on October 30, 2020; the shares were subscribed at a unit price of 0.31 euros.

To service the initiative, a maximum of 127,500,000 new shares were to be issued, to be offered for paid subscription and, subsequently, a maximum 42,500,000 new shares, without capital increase, for the free allocation of 1 Bonus Share for every 3 subscribed shares.

As a result of the issuance on November 27, 2020 of 126,343,913 Telecom Italia ordinary shares to the subscribers of the discount shares, 38,604,270 ordinary shares of the Company (*Bonus Share*) were granted free of charge on December 3, 2021, without a capital increase. As planned, the Bonus Shares were awarded to those who retained their subscribed shares for the period of one year from the assignment date, subject to continued employee status.

TIM S.A. - Long Term Incentive Plan 2018-2020

On April 19, 2018, the General Meeting of Shareholders of TIM Participações S.A. (now incorporated into TIM S.A.) approved the long-term incentive plan for managers in key positions in the company. The plan aimed to reward participants with shares issued by the company, subject to specific temporal and performance conditions. The portion of shares linked to performance (70%) is granted 1/3 each year, if the performance target is achieved; the remaining portion of shares (30%) is granted 3 years after allocation (restricted share). The vesting period is 3 years (with annual measurement) and the company does not have the legal obligation to repurchase or liquidate the shares in cash or in any other form.

The plan – in addition to transferring shares to beneficiaries – also includes the possibility of rewarding participants through the settlement of the amount corresponding in cash.

Year 2018

On April 20, 2018, plan beneficiaries were granted the right to receive a total of 849,932 shares, of which 594,954 performance shares restricted to performance conditions and with gradual vesting over 3 years and 254,978 restricted shares, with a total vesting period of 3 years.

At December 31, 2021, 100% of the rights assigned were considered as vested:

- **First vesting period**: in compliance with the results approved on May 29, 2019, 115,949 shares were transferred to beneficiaries, of which 91,708 relating to the original volume accrued, 20,594 granted according to the degree to which objectives had been achieved and 3,647 shares as a result of the dividends distributed during the period. For participants transferred to other Group companies, as per the Plan rules, payment in cash was considered of the amount corresponding to 3,685 shares (2,915 relative to the original volume accrued, 654 acknowledged according to the degree to which the objectives had been achieved and 116 due to dividends distributed during the period).
- **Second vesting period**: in compliance with the results approved on June 17, 2020, 87,766 shares were transferred to beneficiaries, of which 83,181 relating to the original volume accrued, 70 discounted

according to the degree to which objectives had been achieved and 4,655 shares for dividends distributed during the period. For participants transferred to other Group companies, as per the Plan rules, payment in cash was considered of the amount corresponding to 3,084 shares (2,915 relative to the original volume accrued, 5 acknowledged according to the degree to which the objectives had been achieved and 164 due to dividends distributed during the period).

- **Third vesting period**: in compliance with the results approved on May 5, 2021, 252,143 shares were transferred to beneficiaries, of which 187,039 relating to the original volume accrued, 42,854 discounted according to the degree to which objectives had been achieved and 22,250 shares for dividends distributed during the period. For participants transferred to other Group companies, as per the Plan rules, payment in cash was considered of the amount corresponding to 12,500 shares (9,101 relative to the original volume accrued, 2,305 acknowledged according to the degree to which the objectives had been achieved and 1,094 due to dividends distributed during the period).

At December 31, 2021, of the total assigned of 849,932 shares, 473,073 had been canceled due to the beneficiaries having left the participating company, 455,858 shares had been transferred to beneficiaries (361,928 relative to the original volume accrued, 63,378 from performance achieved and 30,552 for payment of dividends in shares) and 19,269 shares had been valued and paid in cash (14,931 relative to the original volume accrued, 2,964 from performance achieved and 1,374 for payment of dividends in shares), thereby completing the 2018 concession.

Year 2019

On July 30, 2019, plan beneficiaries were granted the right to receive a total of 930,662 shares, of which 651,462 performance shares restricted to performance conditions and with gradual vesting over 3 years and 279,200 restricted shares, with a total vesting period of 3 years.

Two vesting periods ended on December 31:

- **First vesting period**: in compliance with the results approved on July 29, 2020, 309,557 shares were transferred to beneficiaries, of which 209,349 relating to the original volume accrued, 83,672 granted according to the degree to which objectives had been achieved and 16,536 shares as a result of the dividends distributed during the period.
- **Second vesting period**: in compliance with the results approved on July 26, 2021, 309,222 shares were transferred to beneficiaries, of which 207,859 relating to the original volume accrued, 78,111 discounted according to the degree to which objectives had been achieved and 23,252 shares for dividends distributed during the period.

At December 31, 2021, of the total assigned of 930,662 shares, 86,424 had been canceled due to the beneficiaries having left the company and 618,779 shares had been transferred to beneficiaries (417,208 related to the original volume vested, 161,783 from performance achieved and 39,788 for payment of dividends in shares), thereby leaving a balance of 427,030 shares that could be accrued at period end.

Year 2020

On April 14, 2020, plan beneficiaries were granted the right to receive a total of 796,054 shares, of which 619,751 performance shares restricted to performance conditions and with gradual vesting over 3 years and 176,303 restricted shares, with a total vesting period of 3 years.

At December 31, 2021, of the total assigned of 796,054 shares, 70,378 shares were canceled due to beneficiaries having left the company and 267,145 shares were transferred to beneficiaries against the result of the first vesting period of performance shares, in accordance with the results approved on May 5, 2021 (206,578 relating to the original volume vested, 51,634 recognized based on the level of achievement of objectives and 8,933 as a result of dividends distributed during the period), thereby leaving a balance of 519,098 shares that could be accrued at period end.

TIM S.A. - Long Term Incentive Plan 2021-2023

On March 30, 2021, the General Meeting of Shareholders of TIM S.A. approved the long-term incentive plan for managers in key positions in the company. The plan aims to reward participants with shares issued by the company, according to specific time (restricted shares) and performance (performance shares) conditions. The vesting period is 3 years and the company does not have the legal obligation to repurchase or liquidate the shares in cash or in any other form. The plan – in addition to transferring shares to beneficiaries – also includes the possibility of rewarding participants through the settlement of the amount corresponding in cash.

Year 2021

On May 05, 2021, plan beneficiaries were granted the right to receive a total of 3,431,610 shares, of which 3,173,142 performance shares restricted to performance conditions and with gradual vesting over 3 years and 258,468 restricted shares, with a total vesting period of 3 years.

In 2021, the Special Grant was added to the traditional plan, a further extraordinary concession with the aim of encouraging the closure of the Oi purchase operation in Brazil as well as the success of the subsequent integration operations.

Of the total 3,431,610 shares granted, 1,151,285 relate to the traditional grant (with 892,817 performance shares and 258,468 restricted shares) and 2,280,325 refer to the Special Grant.

As at December 31, 2021, the first vesting period has not yet finished. However, 311,876 shares were canceled due to the participants leaving the company.

Calculation of fair value measurement of the granted options and rights

Parameters used to determine the fair value – TIM S.p.A.

Plans/Parameters	Exercise price (euros)	Nominal value (euros) (1)	Volatility (2)	Duration	Expected dividends (euros) (3)	Risk-free interest rate (4)
LTI Plan 2018-2020 - equity component	-	0.63	n.a.	3 years	-	-0.552% at 3 years
LTI Plan 2018-2020 - equity component (two-year CEO granting)	-	0.51	n.a.	2 years	-	-0.594% at 2 years
LTI 2018 – 2020 Plan – equity component (two-year allocations)	-	0.48	n.a.	2 years	-	-0.569% at 2 years
LTI 2018 – 2020 Plan – equity component (two-year allocations)	-	0.48	n.a.	2 years	-	-0.570% at 2 years
2020-2022 LTI Plan – First Cycle (2020-22)	-	0.35	n.a.	3 years	0.01	-0.714% at 3 years
2020-2022 LTI Plan – Second Cycle (2021-23)	-	0.42	n.a.	3 years	0.01	-0.720% at 3 years
Broad-Based Share Ownership Plan 2020	-	0.333861	n.a.	1 year	0.01	-0.699% at 1 year
2020 Broad-Based Share Ownership Plan - the Bonus Shares	-	0.38	n.a.	-	-	-

(1) Arithmetic mean of the official prices of the Shares recognized starting from the stock market trading day prior to that of assignment until the thirtieth previous ordinary calendar day (both included) on the Electronic Stock Exchange organized and managed by Borsa Italiana S.p.A., calculated using only the days to which the prices taken as the basis of calculation refer as the divisor, cut off at the second decimal.
(2) Based on the performance objectives of the plan, the TIM share volatility values were considered and, if necessary, also those of the securities of the major companies of the telecommunications sector ("peer basket").
(3) Dividends have been estimated on the basis of Bloomberg data.
(4) The risk-free interest rate refers to the rate of government bonds of the Federal Republic of Germany (market benchmark for transactions in euros) on the valuation date with a maturity consistent with the reporting period.

Parameters used for the assignments of TIM S.A.

Plans/Parameters	Share base price (reais)	Nominal value (reais)	Volatility	Duration	Expected dividends (reais)	Risk-free interest rate
Stock option plan 2014	13.42	n.a.	44.60%	6 years	-	10.66% per annum
Stock option plan 2015	8.45	n.a.	35.50%	6 years	-	16.10% per annum
Stock option plan 2016	8.10	n.a.	36.70%	6 years	-	11.73% per annum
2018 PS/RS Plan	n.a.	14.41	n.a.	3 years	n.a.	n.a.
2019 PS/RS Plan	n.a.	11.28	n.a.	3 years	n.a.	n.a.
2020 PS/RS Plan	n.a.	14.40	n.a.	3 years	n.a.	n.a.
2021 PS/RS Plan	n.a.	12.95	n.a.	3 years	n.a.	n.a.

The parameters are characteristic of a stock option plan, considering the use of fair value appropriate only for Stock Option Plans.

Effects on the income statement and statement of financial position

Equity compensation plans which call for payment in equity instruments are recorded at fair value (except for the 2018 Plan of TIM S.A.) which represents the cost of such instruments at the grant date and is recorded in the separate income statements under "Employee benefits expenses" over the period between the grant date and the vesting period with a contra-entry to the equity reserve ("Other equity instruments"). For the portion of the plans that provide for the payment of compensation in cash, the amount is recognized in liabilities as a contra-entry to "Employee benefits expenses". Equity compensation plans which call for payment in equity instruments did not have significant impacts either on the income statements or the statements of financial position or of cash flows of the TIM Group at December 31, 2021.

NOTE 41

SIGNIFICANT NON-RECURRING EVENTS AND TRANSACTIONS

The effect of 2021 non-recurring events and transactions on the equity, profit, net financial debt and cash flows of the TIM Group is set out below in accordance with Consob Communication DEM/6064293 of July 28, 2006. The non-recurring effects on Equity and Profit (loss) for the year are shown net of tax effects.

(million euros)		Equity	Profit (loss) for the year	Net financial debt carrying amount	Cash flows (*)
Carrying amount	**(a)**	**22,039**	**(8,400)**	**22,416**	**2,383**
Revenue adjustments		(4)	(4)	—	—
Other income		11	11	(1)	1
Acquisition of goods and services - Expenses related to agreements and the development of non-recurring projects and other costs		(36)	(36)	57	(57)
Employee benefits expenses - Charges connected to corporate reorganization/restructuring and other costs		(263)	(263)	474	(474)
Other operating expenses - Expenses related to disputes and regulatory sanctions and potential liabilities related to them, and expenses related to disputes with former employees and liabilities with customers and/or suppliers for other provisions and charges		(556)	(556)	250	(250)
Other income (expenses) from investments		18	18	(1,931)	1,931
Other finance income		1	1	—	—
Miscellaneous finance expenses		(1)	(1)	—	—
Goodwill impairment loss attributed to Domestic CGU		(4,120)	(4,120)	—	—
Tax realignment pursuant to Decree Law 104/2020 Art. 110		(3,785)	(3,785)	231	(231)
Tax receivables Brazil Business Unit		82	82	—	—
Total non-recurring effects	**(b)**	**(8,653)**	**(8,653)**	**(920)**	**920**
Income/(Expenses) relating to Discontinued operations	**(c)**	**—**	**—**	**—**	**—**
Figurative amount – financial statements	**(a–b-c)**	**30,692**	**253**	**23,336**	**1,463**

(*) Cash flows refer to the increase (decrease) in Cash and cash equivalents during the year.

"Other operating expenses - Expenses related to disputes and regulatory sanctions and potential liabilities related to them, and expenses related to disputes with former employees and liabilities with customers and/or suppliers and other provisions and charges" include 548 million euros for the posting of Contractual risk provisions for Onerous Contracts (IAS 37) relating to ongoing relations with some counterparties for the offer of multimedia content.

In particular, they include the accrual of the Net Present Value of the negative margin connected with some partnerships, including the one in place between TIM and DAZN for the offer in Italy on the TIMVISION platform of DAZN content, including all matches of the Serie A football championship for the seasons 2021-22, 2022-23 and 2023-24.

In greater detail, as part of the definition of the 2022-2024 Strategic Plan, the business plan hypotheses have been updated for the current football season and the next two, pointing out that the total margins of the project, including TIM's contractual commitments towards DAZN in terms of fees, for lack of remedy by DAZN of certain breaches already disputed, is very much negative.

Use of said Provision throughout the contractual term will make it possible to offset the negative item of the margin (EBITDA), thereby obtaining null EBIT (organic or operative margin) for the DAZN offer contents sale business.

In financial terms, TIM is contractually obliged to pay DAZN six installments in advance (July, September, November, January, March and May) for each year (July 1-June 30, corresponding to each championship season), without prejudice to the fact that should the report of TIM customers with DAZN service in the two months prior to each installment record a higher amount being due to the latter (at present, this is purely theoretical), TIM would be required to also pay this difference.

The impact of non-recurring items on the separate consolidated income statement line items is as follows:

(million euros)	2021	2020
Revenues:		
Revenue adjustments	(5)	(39)
Other income:		
Other operating provisions absorption	—	1
Recovery of operating expenses	13	—
Acquisition of goods and services, Change in inventories:		
Professional expenses, consulting services and other costs	(49)	(64)
Employee benefits expenses:		
Charges connected to corporate reorganization/restructuring and other costs	(367)	(74)
Other operating expenses:		
Sundry expenses and other provisions	(735)	(148)
Impact on Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)	**(1,143)**	**(324)**
Goodwill impairment loss Domestic CGU	(4,120)	—
Impact on EBIT - Operating profit (loss)	**(5,263)**	**(324)**
Other income (expenses) from investments:		
Net capital gain on corporate transactions	119	452
Finance income:		
Other finance income	1	—
Finance expenses:		
Miscellaneous finance expenses	(1)	(7)
Impact on profit (loss) before tax from continuing operations	**(5,144)**	**121**
Tax realignment pursuant to Decree Law 104/2020 Art. 110	(3,785)	5,877
Income taxes on non-recurring items	276	50
Impact on Profit (loss) for the year	**(8,653)**	**6,048**

In 2021, the COVID-19 emergency meant that the TIM Group incurred non-recurring charges, gross of tax effects, for approximately 25 million euros, of which 20 million euros allocated in connection with credit management deriving from the expected worsening of the expected credit loss of corporate customers, due to the expected evolution of the pandemic.
Staff costs (1 million euros) and costs relating to supplies and miscellaneous costs (4 million euros), which were necessary to manage the health emergency, have also been recorded.
Furthermore, the figures stated mainly include both non-recurring charges connected with corporate reorganization/restructuring processes and provisions for disputes, transactions, regulatory sanctions and potential liabilities and expenses connected with agreements and the development of non-recurring projects.
At December 31, 2021, non-recurring income was also recorded for approximately 82 million euros in connection with tax benefits of the Brazil Business Unit.

For more details on the tax benefits of the Brazil Business Unit and the tax realignment pursuant to Decree Law 104/2020, refer to the Note on "Income tax expense (current and deferred)".

NOTE 42

POSITIONS OR TRANSACTIONS RESULTING FROM ATYPICAL AND/OR UNUSUAL OPERATIONS

In accordance with Consob Communication DEM/6064293 of July 28, 2006, a statement is made to the effect that in 2021 the TIM Group did not pursue any atypical and/or unusual transactions, as defined by that Communication.

NOTE 43
OTHER INFORMATION

a) Exchange rates used to translate the financial statements of foreign operations(*)

		Year-end exchange rates (statements of financial position)		Average exchange rates for the year (income statements and statements of cash flows)	
(local currency against 1 euro)		12/31/2021	12/31/2020	2021	2020
Europe					
BGN	Bulgarian Lev	**1.95580**	1.95580	**1.95580**	1.95580
CZK	Czech koruna	**24.85800**	26.24200	**25.64620**	26.45640
CHF	Swiss franc	**1.03310**	1.08020	**1.08136**	1.07047
TRY	Turkish lira	**15.23350**	9.11310	**10.49995**	8.04599
GBP	Pound sterling	**0.84028**	0.89903	**0.85970**	0.88940
RON	Romanian leu	**4.94900**	4.86830	**4.92118**	4.83817
RUB	Russian ruble	**85.30040**	91.46700	**87.18796**	82.66883
North America					
USD	U.S. dollar	**1.13260**	1.22710	**1.18285**	1.14179
Latin America					
VES (**)	Venezuelan bolivar – Soberano	**5.19230**	1,356,945.08000	**2,489,106.60692**	375,274.05000
BOB	Bolivian Bolíviano	**7.83860**	8.47930	**8.16146**	7.88964
PEN	Peruvian nuevo sol	**4.55660**	4.44260	**4.58967**	3.99284
ARS	Argentine peso	**116.53860**	103.24940	**112.44200**	80.83685
CLP	Chilean peso	**969.83000**	872.52000	**898.33180**	902.97084
COP	Colombian peso	**4,628.12000**	4,202.34000	**4,430.02835**	4,215.45981
BRL	Brazilian real	**6.32047**	6.37680	**6.35936**	5.88806
Other countries					
ILS	Israeli shekel	**3.51590**	3.94470	**3.82197**	3.92462
NGN	Nigerian Naira	**483.26890**	465.68500	**482.17941**	407.22874

(*) Source: Data processed by the European Central Bank, Reuters and major Central Banks.
(**) On October 1, 2021, a new monetary scale took effect, entailing the elimination of six zeros in relation to the previous one (1,000,000Bs = 1Bs).

b) Research and development

Costs for research and development activities are represented by external costs, labor costs of dedicated staff and depreciation and amortization. Details are as follows:

(million euros)	2021	2020
Research and development costs expensed during the year	56	79
Capitalized development costs	1,016	1,043
Total research and development costs (expensed and capitalized)	**1,072**	**1,122**

The decrease recorded in the 2021 financial year is due to the stabilization of implementation activities connected with the new generation networks, partly offset by software developments on corporate information systems.

In the 2021 Separate Consolidated Income Statement, a total of 907 million euros of depreciation/amortization expense was recorded for development costs, capitalized during the year and in prior years.

Research and development activities carried out by the TIM Group are described in detail in the Report on Operations (“Research and Development” section).

c) Leasing income

The TIM Group has entered into lease contracts on land and buildings for office and industrial use, mobile network infrastructure sites and network infrastructure; at December 31, 2021 and at December 31, 2020, the lease installments at nominal value still to be collected totaled:

(million euros)	12/31/2021	12/31/2020
.Within next year	100	154
From 1 to 2 years after the end of the reporting period	36	74
From 2 to 3 years after the end of the reporting period	34	62
From 3 to 4 years after the end of the reporting period	34	56
From 4 to 5 years after the end of the reporting period	30	54
Beyond 5 years after the end of the reporting period	29	54
Total	**263**	**454**

d) Public funds

Italian Law 124/2017 requires that information on subsidies, contributions, paid assignments and economic benefits of any kind received from Italian public administrations be provided. In this regard, the following table shows the disbursements collected by the TIM Group in the years 2021 and 2020:

Distributing entity	Area of intervention	Received in 2021 (million euros)	Received in 2020 (million euros)
Fondimpresa/Fondirigenti	training		1
Infratel	construction of broadband and ultrabroadband infrastructure	3	24
MUR (formerly MIUR)	research projects		3
ANPAL	New Skills Fund	54	
Sundry income (*)		1	1
Total		**58**	**29**

(*) 2021 - MiSE, Fondimpresa/Fondirigenti, MUR (formerly MIUR)
2020 - MED; Region of Lombardy, Region of Apulia

e) Directors' and statutory auditors' remuneration

Total remuneration due for 2021 to the directors and statutory auditors of TIM S.p.A. for the performance of these functions at the Parent and in other consolidated companies totaled 7.217 million euros for directors and 0.537 million euros for statutory auditors. In reference to the compensation to which the Directors are entitled, it should be noted that the amount was calculated by considering only compensation for corporate offices (in primis those under Article 2389, paragraphs 1 and 3 of the Italian Civil Code), thus excluding amounts relating to any employment relationship with the companies of the Group and any non-monetary fringe benefits; for a complete and detailed description of the compensation paid to the directors, reference should be made to the Compensation Report, available at the Company's headquarters and on the corporate website at the following address: gruppotim.it/assemblea.

f) Summary schedule of fees due to the audit firm and other firms in its network

The following schedule reports the fees due to EY S.p.A. and to the other firms in the EY network for the audit of the 2021 financial statements, and the fees referring to 2021 for other audit and review services, and for other services besides audit rendered to the companies of the TIM Group from EY S.p.A. and other firms in the EY network. The out-of-pocket expenses incurred for these services in 2021 are also shown.

(euros)	EY S.p.A.			Other entities of the EY network			
	TIM S.p.A..	Subsidiaries	TIM Group	TIM S.p.A..	Subsidiaries	TIM Group	Total EY network
Audit services	2,757,343	2,085,615	4,842,958	—	1,470,204	1,470,204	6,313,162
Audit services with the issue of certification	80,000	—	80,000	—	65,292	65,292	145,292
Attestation of compliance of the Consolidated Non-Financial Statement	72,907	—	72,907	—	19,184	19,184	92,091
Other services	—	—	—	—	—	—	—
Total 2021 fees due for auditing and other services to the EY network	**2,910,250**	**2,085,615**	**4,995,865**	**—**	**1,554,680**	**1,554,680**	**6,550,545**
Out-of-pocket expenses	10,016	37,629	47,645	—	52,754	52,754	100,399
Total	**2,920,266**	**2,123,244**	**5,043,510**	**—**	**1,607,434**	**1,607,434**	**6,650,944**

NOTE 44
EVENTS SUBSEQUENT TO DECEMBER 31, 2021

CADE approves acquisition of Oi's mobile business by Tim Brasil

The offer submitted by TIM S.A., Brazilian subsidiary of the TIM Group, for the acquisition of the mobile assets of the Oi Group, together with Telefônica Brasil S.A. (VIVO) and Claro S.A., has been approved by the antitrust Authority CADE (Conselho Administrativo de Defesa Economica).

The decision follows the pronunciation of the reglementary Authority Anatel (Agência Nacional de Telecomunicações), which on February 1, 2022, had expressed itself in favor of the transfer of control of Oi's mobile assets.

The closing of the deal, which will define a new infrastructure structure for the Telco market in Brazil, still depends on the fulfillment of specific conditions foreseen in the Sale and Purchase Agreement. The operation, with which TIM Brasil will acquire the most relevant share of the assets of the Oi Group, is expected to bring significant benefits to the Brazilian TLC sector, maintaining a high degree of competition and ensuring the necessary investments for the development of the country's digital advancement.

TIM reaffirms that the transaction, as of its completion, will add value not only to its Brazilian subsidiary but to the whole Group and its shareholders as it will accelerate its growth and increase operating efficiency through relevant synergies. Furthermore, positive effects are also expected for customers, as the transaction is likely to improve the users' experience and the quality of services offered. Finally, the transaction is expected to benefit the entire telecommunications sector in Brazil, which will be strengthened in its investment capacity, technological innovation, as well as its competitiveness.

TIM: Solidarity for Ukraine, unlimited data and minutes included for customers of Ukrainian nationality

To express its solidarity with the Ukrainian population struck by the current conflict, TIM has made a series of benefits available to its Ukrainian nationality customers in Italy, to help them communicate with friends and family.

Starting March 1, 2022, they will have unlimited data and minutes for a week. To adhere to the initiative, simply answer the specific informative SMS, visit a TIM store or call 119 or visit the My TIM area.

NOTE 45
LIST OF COMPANIES OF THE TIM GROUP

In accordance with Consob Communication DEM/6064293 dated July 28, 2006, the list of companies is provided herein.
The list is divided by type of investment, consolidation method and operating segment.
The following is indicated for each company: name, head office, country and share capital in the original currency. In addition to the percentage ownership of share capital, the percentage of voting rights in the ordinary shareholders' meeting, if different from the percentage holding of share capital, and which companies hold the investment.

Company name	Reg. office	Currency	Share Capital	% Ownership	% of voting rights	Participating companies
PARENT COMPANY						
TIM S.p.A.	MILAN	EUR	11,677,002,855			
SUBSIDIARIES CONSOLIDATED LINE-BY-LINE						
DOMESTIC BU						
CD FIBER S.r.l. (design, construction, maintenance and management of network infrastructure services and high-speed electronic communication systems)	ROME	EUR	50,000	100.0000		TIM S.p.A.
DAPHNE 3 S.p.A. (assumption, holding, management and disposal of equity investments in INWIT)	MILAN	EUR	100,000	51.0000		TIM S.p.A.
FIBERCOP S.p.A. (infrastructures, networks, passive cabled access services to the premises of end users to be offered to TLC operators throughout Italy)	MILAN	EUR	10,000,000	58.0000		TIM S.p.A.
GLOBAL SPACE TRE S.r.l. (in liquidation) (ICT services)	ROME	EUR	10,000	100.0000		NOOVLE S.p.A. SOCIETA' BENEFIT
MED 1 SUBMARINE CABLES Ltd (construction and management of the submarine cable lev1)	RAMAT GAN (ISRAEL)	ILS	9,607,583	100.0000		TELECOM ITALIA SPARKLE S.p.A.
NOOVLE AI S.r.l. (ICT services)	ROVERETO	EUR	10,000	100.0000		NOOVLE S.p.A. SOCIETA' BENEFIT
NOOVLE INTERNATIONAL SAGL (ICT services)	PREGASSONA (SWITZERLAND)	CHF	20,000	100.0000		NOOVLE S.p.A. SOCIETA' BENEFIT
NOOVLE MALTA Ltd (ICT services)	GZIRA (MALTA)	EUR	10,000	90.0000		NOOVLE INTERNATIONAL SAGL
NOOVLE S.p.A. SOCIETA' BENEFIT (design, implementation and management of infrastructures and data center services)	MILAN	EUR	1,000,000	100.0000		TIM S.p.A.
NOOVLE SICILIA S.c.a.r.l. (ICT services)	PALERMO	EUR	50,000	80.0000		NOOVLE S.p.A. SOCIETA' BENEFIT
NOOVLE SLOVAKIA S.R.O. (in liquidation) (ICT services)	BRATISLAVA (SLOVAKIA)	EUR	5,000	85.0000 15.0000		NOOVLE S.p.A. SOCIETA' BENEFIT TELECOM ITALIA FINANCE S.A.
OLIVETTI PAYMENT SOLUTIONS S.p.A. (management of equity investments, study and research activities, commercial, industrial, financial movable and real estate activities)	MILAN	EUR	350,000	100.0000		OLIVETTI S.p.A.
OLIVETTI S.p.A. (production and sale of office equipment and information technology services)	IVREA (TURIN)	EUR	11,000,000	100.0000		TIM S.p.A.
PANAMA DIGITAL GATEWAY S.A. (telecommunications services and data center	PANAMA CITY (PANAMA)	USD	10,000	60.0000		TELECOM ITALIA SPARKLE S.p.A.
STAER SISTEMI S.r.l. (activities connected with the production and marketing of electronic systems and programs and activities connected with energy efficiency plants)	ROME	EUR	419,000	100.0000		OLIVETTI S.p.A.
TELECOM ITALIA SAN MARINO S.p.A. (San Marino telecommunications management)	BORGO MAGGIORE (SAN MARINO)	EUR	1,808,000	100.0000		TIM S.p.A.
TELECOM ITALIA SPARKLE S.p.A. (completion and management of telecommunications services for public and private use)	ROME	EUR	200,000,000	100.0000		TIM S.p.A.
TELECOM ITALIA TRUST TECHNOLOGIES S.r.l. (other operations related to non-classified IT services)	POMEZIA (ROME)	EUR	7,000,000	100.0000		OLIVETTI S.p.A.
TELECOM ITALIA VENTURES S.r.l. (investment holding company)	MILAN	EUR	10,000	100.0000		TIM S.p.A.

Company name	Reg. office	Currency	Share Capital	% Ownership	% of voting rights	Participating companies
TELECONTACT CENTER S.p.A. (telemarketing services)	NAPLES	EUR	3,000,000	100.0000		TIM S.p.A.
TELEFONIA MOBILE SAMMARINESE S.p.A. (development and management of mobile telecommunications plants and services)	BORGO MAGGIORE (SAN MARINO)	EUR	78,000	51.0000		TELECOM ITALIA SAN MARINO S.p.A.
TELENERGIA S.r.l. (import, export, purchase, sale and trade of electricity)	ROME	EUR	50,000	100.0000		TIM S.p.A.
TELSY S.p.A. (production, installation, maintenance, reconditioning and sale of terminals, radio telephones, telecommunications and electronic systems in general)	TURIN	EUR	5,390,000	100.0000		TIM S.p.A.
TI SPARKLE AMERICAS Inc. (managed bandwidth services)	MIAMI (UNITED STATES OF AMERICA)	USD	10,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE ARGENTINA S.A. (managed bandwidth services)	BUENOS AIRES (ARGENTINA)	ARS	9,998,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE AUSTRIA GmbH (telecommunications services)	VIENNA (AUSTRIA)	EUR	2,735,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE BELGIUM S.P.R.L. – B.V.B.A. (telecommunications services)	BRUSSELS (BELGIUM)	EUR	2,200,000	99.9967 0.0033		TELECOM ITALIA SPARKLE S.p.A. TI SPARKLE UK Ltd
TI SPARKLE BRASIL PARTIÇIPAÇÕES Ltda (investment holding company)	RIO DE JANEIRO (BRAZIL)	BRL	71,563,866	99.9999 0.0001		TELECOM ITALIA SPARKLE S.p.A. TI SPARKLE AMERICAS Inc.
TI SPARKLE BRASIL TELECOMUNICAÇÕES Ltda (managed bandwidth services)	RIO DE JANEIRO (BRAZIL)	BRL	69,337,363	99.9999 0.0001		TI SPARKLE BRASIL PARTIÇIPAÇÕES Ltda TI SPARKLE AMERICAS Inc.
TI SPARKLE BULGARIA EOOD (telecommunications)	SOFIA (BULGARIA)	BGN	100,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE CHILE S.p.A. (managed bandwidth services)	SANTIAGO (CHILE)	CLP	5,852,430,960	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE COLOMBIA Ltda (managed bandwidth services)	BOGOTA' (COLOMBIA)	COP	12,635,774,000	99.9999 0.0001		TELECOM ITALIA SPARKLE S.p.A. TI SPARKLE AMERICAS Inc.
TI SPARKLE CZECH S.R.O. (telecommunications services)	PRAGUE (CZECH REPUBLIC)	CZK	6,720,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE FRANCE S.A.S. (installation and management of telecommunications services for fixed network and related activities)	PARIS (FRANCE)	EUR	18,295,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE GERMANY GmbH (telecommunications services)	FRANKFURT (GERMANY)	EUR	25,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE GREECE S.A. (telecommunications)	ATHENS (GREECE)	EUR	368,760	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE ISRAEL Ltd (international wholesale telecommunication services)	RAMAT GAN (ISRAEL)	ILS	1,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE NETHERLANDS B.V. (telecommunications services)	AMSTERDAM (NETHERLANDS)	EUR	18,200	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE NORTH AMERICA, Inc. (telecommunications and promotional services)	NEW YORK (UNITED STATES OF AMERICA)	USD	15,550,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE PANAMA S.A. (managed bandwidth services)	PANAMA CITY (PANAMA)	USD	10,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE PERU' S.A. (managed bandwidth services)	LIMA (PERU)	PEN	57,101,788	99.9999 0.0001		TELECOM ITALIA SPARKLE S.p.A. TI SPARKLE AMERICAS Inc.
TI SPARKLE PUERTO RICO LLC (managed bandwidth services)	SAN JUAN (PUERTO RICO)	USD	3,050,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE ROMANIA S.r.l. (telecommunications services)	BUCHAREST (ROMANIA)	RON	3,021,560	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE RUSSIA LLC (telecommunications services)	MOSCOW (RUSSIA)	RUB	8,520,000	99.0000 1.0000		TELECOM ITALIA SPARKLE S.p.A. TI SPARKLE UK Ltd
TI SPARKLE SINGAPORE Pte.Ltd (telecommunications services)	SINGAPORE	USD	5,121,120	99.9999 0.0001		TELECOM ITALIA SPARKLE S.p.A. TI SPARKLE NORTH AMERICA, Inc.
TI SPARKLE SLOVAKIA S.R.O. (telecommunications services)	BRATISLAVA (SLOVAKIA)	EUR	300,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE SPAIN TELECOMMUNICATIONS S.L. (telecommunications services)	MADRID (SPAIN)	EUR	1,687,124	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE ST. CROIX LLC (managed bandwidth services)	VIRGIN ISLANDS (UNITED STATES OF AMERICA)	USD	1,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.

Company name	Reg. office	Currency	Share Capital	% Ownership	% of voting rights	Participating companies
TI SPARKLE SWITZERLAND GmbH (telecommunications services)	ZURICH (SWITZERLAND)	CHF	2,000,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE TURKEY TELEKOMÜNIKASYON ANONIM SIRKETI (telecommunications services)	ISTANBUL (TURKEY)	TRY	65,000,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE UK Ltd (value-added and networking services)	LONDON (UNITED KINGDOM)	EUR	3,983,254	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE VENEZUELA C.A. (managed bandwidth services)	CARACAS (VENEZUELA)	VES	10	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TIESSE S.c.p.A. (installation and assistance for electronic, IT, telematics and telecommunications equipment)	IVREA (TURIN)	EUR	103,292	61.0000		OLIVETTI S.p.A.
TIM MY BROKER S.r.l. (Insurance brokerage)	ROME	EUR	10,000	100.0000		TIM S.p.A.
TIM RETAIL S.r.l. (ex 4G RETAIL S.r.l.) (sale of fixed and mobile telecommunications products and services and all analog and digital broadcasting equipment)	MILAN	EUR	2,402,241	100.0000		TIM S.p.A.
TIM SERVIZI DIGITALI S.p.A. (development and ordinary and extraordinary maintenance of plants for the supply of telecommunications services to end customers)	ROME	EUR	50,000	100.0000		TIM S.p.A.
TIS LAGOS LIMITED (telecommunications services)	LAGOS (NIGERIA)	NGN	10,000,000	99.9999 0.0001		TELECOM ITALIA SPARKLE S.p.A. TI SPARKLE UK Ltd
BRAZIL BU						
TIM BRASIL SERVIÇOS E PARTICIPAÇÕES S.A. (investment holding company)	RIO DE JANEIRO (BRAZIL)	BRL	7,169,029,859	99.9999 0.0001		TELECOM ITALIA FINANCE S.A. TIM S.p.A.
TIM S.A. (telecommunications services)	RIO DE JANEIRO (BRAZIL)	BRL	13,477,890,508	66.5882 0.0165	66.5992	TIM BRASIL SERVIÇOS E PARTICIPAÇÕES S.A. TIM S.A.
OTHER OPERATIONS						
OLIVETTI DEUTSCHLAND GmbH (sale of office equipment and supplies)	NURNBERG (GERMANY)	EUR	25,600,000	100.0000		OLIVETTI S.p.A.
OLIVETTI UK Ltd (sale of office equipment and supplies)	NORTHAMPTON (UNITED KINGDOM)	GBP	6,295,712	100.0000		OLIVETTI S.p.A.
TELECOM ITALIA CAPITAL S.A. (financial company)	LUXEMBOURG	EUR	2,336,000	100.0000		TIM S.p.A.
TELECOM ITALIA FINANCE S.A. (financial company)	LUXEMBOURG	EUR	1,818,691,979	100.0000		TIM S.p.A.
TELECOM ITALIA LATAM PARTICIPAÇÕES E GESTÃO ADMINISTRATIVA Ltda (telecommunications and promotional services)	SAO PAULO (BRAZIL)	BRL	118,925,804	100.0000		TIM S.p.A.
TI AUDIT COMPLIANCE LATAM S.A. (in liquidation) (internal audit services)	RIO DE JANEIRO (BRAZIL)	BRL	1,500,000	69.9996 30.0004		TIM S.p.A. TIM BRASIL SERVIÇOS E PARTICIPAÇÕES S.A.

Company name	Reg. office	Currency	Share Capital	% Ownership	% of voting rights	Participating companies
ASSOCIATES AND JOINT VENTURES ACCOUNTED FOR USING THE EQUITY METHOD						
AREE URBANE S.r.l. (in liquidation) (real estate management)	MILAN	EUR	100,000	32.6200		TIM S.p.A.
CONSORZIO MEDSTAR (other services to support businesses)	ROME	EUR	10,000	50.0000		STAER SISTEMI S.r.l.
INFRASTRUTTURE WIRELESS ITALIANE S.p.A. (installation and operation of installations and infrastructure for the management and the sale of telecommunications services)	MILAN	EUR	600,000,000	30.2000		DAPHNE 3 S.p.A.
I-SYSTEMS S.A. (telecommunications systems)	RIO DE JANEIRO (BRAZIL)	BRL	1,794,287,995	49.0000		TIM S.A.
MOVENDA S.p.A. (design, construction and diffusion of Internet sites, products and computer media)	ROME	EUR	133,333	24.9998		TELECOM ITALIA FINANCE S.A.
NORDCOM S.p.A. (application service provider)	MILAN	EUR	5,000,000	42.0000		TIM S.p.A.
PEDIUS S.r.l. (implementation of specialized telecommunications applications, telecommunications services over telephone connections, VOIP services)	ROME	EUR	181	(*)		TELECOM ITALIA VENTURES S.r.l.
QTI S.r.l. (development, production and sale of innovative products and services with high technological value)	FLORENCE	EUR	14,925	33.0000		TELSY S.p.A.
SATISPAY S.p.A (production of software not connected with publishing)	MILAN	EUR	826,385	(*)		TELECOM ITALIA VENTURES S.r.l.
SMART STRUCTURES SOLUTIONS S.r.l. (engineering research activities)	ROME	EUR	15,000	36.0000		STAER SISTEMI S.r.l.
TIGLIO I S.r.l. (in liquidation) (real estate management)	MILAN	EUR	100,000	47.8020		TIM S.p.A.
TIMFIN S.p.A. (formerly TIM-SCB JV S.p.A.) (carrying out in regard to the public of the concession of loans in any form and, notably, of any type of finance disbursed in the form of a personal and consumer loan)	TURIN	EUR	40,000,000	49.0000		TIM S.p.A.
W.A.Y. S.r.l. (development and sale of geolocation products and systems for security and logistics)	TURIN	EUR	136,383	39.9999		OLIVETTI S.p.A.
WEBIDOO S.p.A. (ICT services)	MILAN	EUR	242,357	(*)		TELECOM ITALIA VENTURES S.r.l.
WESCHOOL S.r.l. (formerly OILPROJECT S.r.l.) (research, development, marketing and patenting of all intellectual property related to technology, information technology and TLC)	MILAN	EUR	25,000	(*)		TELECOM ITALIA VENTURES S.r.l.

(*) Associate over which TIM S.p.A., directly or indirectly, exercises significant influence pursuant to IAS 28 (Investments in Associates and Joint Ventures).

Company name	Reg. office	Currency	Share Capital	% Ownership	% of voting rights	Participating companies
OTHER MAJOR INVESTMENTS						
IBAS ITALIAN BROADCASTING ADVANCE SOLUTIONS (consultancy services for the management of common promotional activities and connected public relations of the consortium members)	DESENZANO DEL GARDA (BRESCIA)	EUR	16,000	12.5000		STAER SISTEMI S.r.l.
DAHLIA TV S.p.A. (in liquidation) (pay-per-view services)	ROME	EUR	11,318,833	10.0786		TIM S.p.A.
FIN.PRIV. S.r.l. (financial company)	MILAN	EUR	20,000	14.2900		TIM S.p.A.
IGOON S.r.l. (in liquidation) (carpooling scheme to share unused seating capacity in cars in real time through a mobile App)	NAPLES	EUR	16,498	14.2805		TELECOM ITALIA VENTURES S.r.l.
INNAAS S.r.l. (design, development and sale of high-tech software and hardware)	ROME	EUR	108,700	15.2539		TELECOM ITALIA VENTURES S.r.l.
MIX S.r.l. (internet service provider)	MILAN	EUR	1,000,000	11.0937		TIM S.p.A.
WIMAN S.r.l. (development, management and implementation of platforms for social-based Wi-Fi authentication)	MATTINATA (FOGGIA)	EUR	22,333	14.4935		TELECOM ITALIA VENTURES S.r.l.

CERTIFICATION OF THE CONSOLIDATED FINANCIAL STATEMENTS PURSUANT TO ARTICLE 81-TER OF THE CONSOB REGULATION 11971 DATED MAY 14, 1999, WITH AMENDMENTS AND ADDITIONS

1. We, the undersigned, Pietro Labriola, as Chief Executive Officer, and Giovanni Ronca, as Manager responsible for preparing TIM S.p.A. financial reports, certify, having also considered the provisions of Article 154-bis, paragraphs 3 and 4, of Italian Legislative Decree 58 of February 24, 1998, that:
   - the adequacy in relation to the characteristics of the company and
   - the effective application of the administrative and accounting procedures used in the preparation of the consolidated financial statements for the 2021 fiscal year.

2. TIM has adopted the Internal Control – Integrated Framework Model (2013), issued by the Committee of Sponsoring Organizations of the Treadway Commission, as its framework for the establishment and assessment of its internal control system, with particular reference to the internal controls for the preparation of the financial statements.

3. The undersigned also certify that:

   3.1. the Consolidated Financial Statements at December 31, 2021:

   a) have been prepared in compliance with the international accounting standards adopted by the European Union pursuant to Regulation (EC) 1606/2002 of the European Parliament and Council of July 19, 2002 (International Financial Reporting Standards – IFRS), as well as the legislative and regulatory provisions in force in Italy, including, in particular, the measures enacted for the implementation of Article 9 of Italian Legislative Decree 38 of February 28, 2005;

   b) agree with the results of the accounting records and entries;

   c) provide a true and fair view of the financial condition, the results of operations and the cash flows of the Company and its consolidated subsidiaries;

   3.2. The report on operations contains a reliable operating and financial review of the Company and of the Group, as well as a description of their exposure to the main risks and uncertainties. The Report on Operations also contains a reliable analysis of information concerning significant related-party transactions.

March 2, 2022

Chief Executive Officer	**Manager Responsible for Preparing the Corporate Financial Reports**
/ signed /	/ signed /
Pietro Labriola	Giovanni Ronca

INDEPENDENT AUDITORS' REPORT

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Independent auditor's report pursuant to article 14 of Legislative Decree n. 39, dated 27 January 2010 and article 10 of EU Regulation n. 537/2014
(Translation from the original Italian text)

To the Shareholders of
TIM S.p.A.

Report on the Audit of the Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of TIM Group (the Group), which comprise the consolidated statement of financial position as at December 31 ,2021, and the consolidated income statement, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the financial position of the Group as at December 31, 2021, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union and with the regulations issued for implementing art. 9 of Legislative Decree n. 38/2005.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISA Italia). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of TIM S.p.A. in accordance with the regulations and standards on ethics and independence applicable to audits of financial statements under Italian Laws. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

EY S.p.A.
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Iscritta alla S.O. del Registro delle Imprese presso la CCIAA di Milano Monza Brianza Lodi
Codice fiscale e numero di iscrizione 00434000584 - numero R.E.A. di Milano 606158 - P.IVA 00891231003
Iscritta al Registro Revisori Legali al n. 70945 Pubblicato sulla G.U. Suppl. 13 - IV Serie Speciale del 17/2/1998
Iscritta all'Albo Speciale delle società di revisione
Consob al progressivo n. 2 delibera n.10831 del 16/7/1997

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We identified the following key audit matters:

Key Audit Matter	Audit Response
Impairment test of goodwill – Domestic	
As of December 31, 2021 goodwill amounts to Euro 18,568 million and refers for Euro 18,124 million to the Domestic cash generating unit ("CGU") and for Euro 444 million to the Brazil CGU. Based on the impairment test performed as of December 31, 2021, an impairment loss of Euro 4,120 has been recorded for the Domestic CGU. The processes and methodologies used by the Group to evaluate and determine the recoverable amount of each CGU, are based on assumptions that are in some cases complex and that, due to their nature, imply the use of judgement by Management, in particular with reference to the forecast of future cash flows and to the estimate of the long-term growth and discount rates applied to the future cash flow forecasts. Considering the level of judgment required and the complexity of the assumptions applied in estimating the recoverable amount of goodwill, we considered this area a key audit matter. Disclosures related to the assessment of goodwill are reported in note 4 "Goodwill" and in note 2 "Accounting policies" in the paragraphs “Intangible assets - Goodwill”," Impairment of intangible, tangible and rights of use assets - Goodwill" and "Use of estimates".	Our audit procedures in response to the key audit matter included, among others: ► the assessment of the processes implemented by the Group with reference to the criteria and methodology of the impairment test; ► the validation of the CGUs perimeter and the test of the allocation of the carrying value of the Group’s assets to each CGU; ► the assessment of the reasonableness of the future cash flows forecasts, including comparisons with sector data and forecasts, utilized in the fair value determination; ► the assessment of the consistency of the future cash flows forecasts of each CGU with the Group business plan; ► the assessment of forecasts in light of their historical accuracy; ► the assessment of the reasonableness of long-term growth rates and discount rates. The procedures referred to in the previous points also concerned the analysis of the assessments performed by the independent experts appointed by the Group. In performing our analysis, we involved our experts in valuation techniques, who performed an independent recalculation and carried out sensitivity analyses on the key assumptions in order to determine which changes in the assumptions could materially affect the recoverable amount. Lastly, we reviewed the adequacy of the disclosures provided in the notes to the consolidated financial statements with regards to the valuation of goodwill.

Revenue recognition

TIM Group's revenues amounted to Euro 15,316 million as of December 31, 2021 and refer almost entirely to the telecommunications services rendered to retail and wholesale customers (other telecommunications operators). Procedures over the accounting of revenues required significant focus in the context of our audit procedures due to i) a highly complex accounting process due to the number of commercial offers, the number of underlying application systems and the related reconciliation processes, ii) the presence of certain manual phases in the revenue recognition process, in particular for services provided to large customers and iii) the complexity in estimating commitments connected to certain contracts. The Group provides the relative disclosures in Note 25 "Revenues" of the consolidated financial statements.	Our audit procedures in response to the key audit matter included, among others: ► an understanding of the processes underlying the revenue recognition; ► the understanding and verification of the design and operation of the relevant controls over the revenue recognition process; ► the analysis of the application systems supporting the revenue recognition process; ► the assessment that the accounting policy adopted for the main commercial offers is consistent with the provisions of the reference accounting standard; ► the analysis, on a sample basis, of some significant transactions relating to invoices issued and invoices to be issued, in order to verify that the contractual data and the evidence supporting the actual service rendered and / or goods transferred were consistent with the accounting policy adopted; ► the analysis of the valuation of certain contracts identified as onerous contracts; ► the reconciliation of the management accounts with the accounting records in connection with the main balance sheet items related to customer relations; ► the analysis of the manual journal entries. We also required external confirmations for a sample of customers and transactions. Lastly, we reviewed the adequacy of the disclosure provided in the notes to the consolidated financial statements with regards to the revenue recognition process.

Regulatory disputes

As of December 31, 2021, TIM Group is involved in several regulatory disputes in progress, many of which are characterized by significant counterparty requests.	Our audit procedures in response to the key audit matter included, among others: ► an understanding of the process put in place by Management for assessing disputes,

The main disputes concern (i) the 28-day billing proceeding, in which AGCOM ordered TIM to reimburse customers for unused service days, (ii) the I820 proceeding, started by AGCM against TIM and other telco operators, to ascertain a possible conduct restricting market competition and (iii) the A514, and the related "follow-on" proposed by some other OLOs, procedure in which the AGCM charged TIM with conduct aimed at hindering the entry on the market of a new operator.

The assessment of the disputes was carried out by Management, as of 31 December 2021, based on the opinion of the external lawyers, as well as considering the latest information available.

The estimation of the risks connected to the disputes in which the Group is involved, requires a high degree of judgment by the management and, also considering the complexity of the regulatory framework, we considered this area a key audit matter.

Disclosures related to the assessment of the risks relating to the regulatory disputes in which the Group is involved is reported in note 24 "Disputes and pending legal actions, other information, commitments and guarantees".

accompanied by test of the effectiveness of the internal controls relevant for this process;

- inquiries with Management regarding the main assumptions made in connection with disputes;
- the analysis of the legal opinions prepared by external consultants, based on which Management has based its assessments;
- the analysis of the responses received from external lawyers following our external confirmations procedures.

Lastly, we reviewed the adequacy of the disclosures provided in the notes to the consolidated financial statements with regards to the disputes in which the Group is involved, based on their compliance with the international accounting standards and their consistency with the results of our audit procedures.

Fiscal disputes in Brazil

As of December 31, 2021, the TIM Group is involved in several disputes with the Brazilian tax authorities.

The maximum potential liability associated with these disputes, as at December 31, 2021, amounts to Euro 2,583. With reference to this potential liability, the Group recognized a provision of Euro 68 million with regards to the risks deemed probable.

The assessment of the risk related to the tax disputes in Brazil in which the Group is involved, requires a high degree of judgment by the Management and, also considering the significance of the amounts involved, we considered it to be a key audit matter.

Disclosures related to the assessment of the

Our audit procedures in response to the key audit matter included, among others:

- an understanding of the process put in place by Management for assessing disputes, accompanied by test of the effectiveness of the controls relevant for this process;
- inquiries with Management regarding the main assumptions made in connection with disputes;
- the analysis of the legal opinions prepared by external consultants, based on which Management has based its assessments;
- the analysis of the responses to our external confirmations procedures received from external lawyers, also with the involvement

risks relating to the fiscal disputes in which the Group is involved is reported in note 24 "Disputes and pending legal actions, other information, commitments and guarantees".

of our experts in tax disputes.

Lastly, we reviewed the adequacy of the disclosures provided in the notes to the consolidated financial statements with regards to the disputes in which the Group is involved, based on their compliance with the international accounting standards and their consistency with the results of our audit procedures.

Recoverability of deferred tax assets

As of December 31, 2021, deferred tax assets amount, net of impairment, to Euro 3,513 million in the consolidated financial statements.

The recoverability analysis of the deferred tax assets performed as of December 31, 2021, led to an impairment loss of Euro 3,825.

Deferred tax assets refer to the temporary deductible differences between the book and fiscal values of assets and liabilities in the financial statements.

The recoverability of the carrying amount of the deferred tax assets is subject to management’s evaluation and is based on the estimations of the future taxable income expected in the years in which them will be reversed.

The processes and methodologies used to evaluate and determine the recoverable amount of these assets, are based on assumptions that are in some cases complex and that, due to their nature, imply the use of judgement by Management, in particular with reference to the consistency of the forecasts of future taxable income expected by the Group with those included in the business plan.

Considering the level of judgment required and the complexity of the assumptions applied in estimating future taxable amount used to determine the recoverability of the deferred tax assets, we considered this area a key audit matter.

Disclosures related to the assessment of recoverability of deferred tax assets are reported in note 2 "Accounting policies" in the paragraphs “Income tax expense (current and

Our audit procedures in response to the key audit matter included, among others:

- the assessment of the reasonableness of the assumptions underlying the estimation of future taxable income and the reconciliation with the figures included in the Group's business plan, taking into account the regulatory changes that took place during 2021 ;
- the assessment of the reasonableness of the accuracy of the forecasts compared with the prior periods;
- the assessment of the Management calculations.

Lastly, we reviewed the adequacy of the disclosures provided in the notes to the consolidated financial statements with regards to the recoverability of deferred tax assets.

deferred)" and "Use of estimates" and in note 11 “Income tax expense (current and deferred)".

Sale of 51% equity interest in I-System

On November 16, 2021, the Group sold the 51% of its equity interest held in I-System, generating a gain of Euro 119 million, which was measured as the difference between the fair value of the consideration received and the carrying value of the net assets of I-System. The determination of the carrying value of the net assets of I-System involved identifying and measuring the assets, the liabilities and the goodwill allocated to I-System as of the closing date of the transaction.

Considering the level of judgment required in defining the portion of the Brazil CGU Goodwill to be allocated to I-System and in determining the accounting analysis and the implications of the loss of control, we considered this area a key audit matter.

Disclosures related to the transaction are reported in note 8 "Investments".

Our audit procedures in response to the key audit matter included, among others:

- an understanding of the process put in place by Management for selling I-System, accompanied by tests of the effectiveness of the controls relevant for this process;
- the analysis of the transaction agreement;
- the analysis of the accuracy of the gain resulting from the transaction;
- the analysis of key inputs, data and assumptions used by Management to determine the allocation of goodwill to I-System;
- the assessment of the Management's application of the criteria for the loss of control by evaluating contrary evidence;
- the analysis of the Management´s assessment of the master service agreement under an IFRS 16 perspective.

In performing our analysis, we involved our tax experts to evaluate the tax impacts of the transaction.

Lastly, we reviewed the adequacy of the disclosures provided in the notes to the consolidated financial statements.

Responsibilities of Directors and Those Charged with Governance for the Consolidated Financial Statements

The Directors are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union and with the regulations issued for implementing art. 9 of Legislative Decree n. 38/2005, and, within the terms provided by the law, for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

The Directors are responsible for assessing the Group’s ability to continue as a going concern and, when preparing the consolidated financial statements, for the appropriateness of the going concern assumption, and for appropriate disclosure thereof. The Directors prepare the consolidated financial statements on a going concern basis unless they either intend to liquidate the Parent Company TIM S.p.A. or to cease operations, or have no realistic alternative but to do so.

The statutory audit committee ("Collegio Sindacale") is responsible, within the terms provided by the law, for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but it is not a guarantee that an audit conducted in accordance with International Standards on Auditing (ISA Italia) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with International Standards on Auditing (ISA Italia), we have exercised professional judgment and maintained professional skepticism throughout the audit. In addition:

- we have identified and assessed the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designed and performed audit procedures responsive to those risks, and obtained audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- we have obtained an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Group's internal control;
- we have evaluated the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors;
- we have concluded on the appropriateness of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to consider this matter in forming our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern;
- we have evaluated the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- we have obtained sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We have communicated with those charged with governance, identified at an appropriate level as required by ISA Italia, regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We have provided those charged with governance with a statement that we have complied with the ethical and independence requirements applicable in Italy, and we have communicated with them all matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we have determined those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We have described these matters in our auditor's report.

Additional information pursuant to article 10 of EU Regulation n. 537/14

The shareholders of TIM S.p.A., in the general meeting held on March 29, 2019, engaged us to perform the audits of the separate and consolidated financial statements for each of the years ending December 31, 2019 to December 31, 2027.

We declare that we have not provided prohibited non-audit services, referred to article 5, par. 1, of EU Regulation n. 537/2014, and that we have remained independent of the Group in conducting the audit.

We confirm that the opinion on the consolidated financial statements included in this report is consistent with the content of the additional report to the audit committee (Collegio Sindacale) in their capacity as audit committee, prepared pursuant to article 11 of the EU Regulation n. 537/2014.

Report on compliance with other legal and regulatory requirements

Opinion on the compliance with Delegated Regulation (EU) 2019/815

The Directors of TIM S.p.A. are responsible for applying the provisions of the European Commission Delegated Regulations (EU) 2019/815 for the regulatory technical standards on the specification of a single electronic reporting format (ESEF – European Single Electronic Format) (the "Delegated Regulation") to the consolidated financial statements, to be included in the annual financial report.

We have performed the procedures under the auditing standard SA Italia n. 700B, in order to express an opinion on the compliance of the consolidated financial statements with the provisions of the Delegated Regulation.

In our opinion, the consolidated financial statements have been prepared in the XHTML and have been marked-up, in all material aspects format in compliance with the provisions of the Delegated Regulation.

Opinion pursuant to article 14, paragraph 2, subparagraph e), of Legislative Decree n. 39 dated 27 January 2010 and of article 123-bis, paragraph 4, of Legislative Decree n. 58, dated 24 February 1998

The Directors of TIM S.p.A. are responsible for the preparation of the Report on Operations and of the Report on Corporate Governance and Ownership Structure of TIM Group as at December 31, 2021, including their consistency with the related consolidated financial statements and their compliance with the applicable laws and regulations.

We have performed the procedures required under audit standard SA Italia n. 720B, in order to express an opinion on the consistency of the Report on Operations and of specific information included in the Report on Corporate Governance and Ownership Structure as provided for by article 123-bis, paragraph 4, of Legislative Decree n. 58, dated 24 February 1998, with the consolidated financial statements of TIM Group] as at December 31 ,2021 and on their compliance with the applicable laws and regulations, and in order to assess whether they contain material misstatements.

In our opinion, the Report on Operations and the above mentioned specific information included in the Report on Corporate Governance and Ownership Structure are consistent with the consolidated financial statements of TIM Group as at December 31, 2021, and comply with the applicable laws and regulations.

With reference to the statement required by art. 14, paragraph 2, subparagraph e), of Legislative Decree n. 39, dated 27 January 2010, based on our knowledge and understanding of the entity and its environment obtained through our audit, we have no matters to report.

Statement pursuant to article 4 of Consob Regulation implementing Legislative Decree n. 254, dated 30 December 2016

The Directors of TIM S.p.A. are responsible for the preparation of the non-financial information pursuant to Legislative Decree n. 254, dated 30 December 2016. We have verified that non-financial information have been approved by Directors.

Pursuant to article 3, paragraph 10, of Legislative Decree n. 254, dated 30 December 2016, such non-financial information are subject to a separate compliance report signed by us.

Turin, March 16, 2022

EY S.p.A.
Signed by: Ettore Abate, Auditor

This report, that includes the opinion on the consolidated financial statements of EIP S.p.A. and the opinion on the TIM S.p.A.'s compliance with other legal and regulatory requirements as applicable to our audit, has been translated into the English language solely for the convenience of international readers. Accordingly, we express no such opinions in respect of the English translation of the consolidated financial statements of TIM S.p.A. and XHTML format thereof.

TIM S.p.A. Separate Financial Statements

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TIM S.P.A. SEPARATE FINANCIAL STATEMENTS

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STATEMENTS OF FINANCIAL POSITION

Assets

(euros)	notes	12/31/2021	*of which with related parties*	12/31/2020	*of which with related parties*
Non-current assets					
Intangible assets					
Goodwill	3)	12,960,511,068		23,050,788,256	
Intangible assets with a finite useful life	4)	5,278,281,754		5,500,451,232	
		18,238,792,822		**28,551,239,488**	
Tangible assets	5)				
Property, plant and equipment owned		**7,223,464,580**		**10,335,288,469**	
Rights of use assets	2) 6)	**3,320,501,325**	*487,904,000*	**4,095,532,681**	*888,531,000*
Other non-current assets					
Investments	7)	**11,053,931,924**		**7,244,594,938**	
Other investments	7)				
Non-current financial receivables arising from lease contracts	8)	10,912,998	1,135,000	16,870,793	
Other non-current financial assets	8)	4,437,606,952	*2,669,461,000*	2,489,871,187	*658,163,000*
Miscellaneous receivables and other non-current assets	9)	1,973,923,028	*247,500,000*	1,733,641,142	*131,043,000*
Deferred tax assets	10)	3,363,514,150		7,336,789,781	
		20,839,888,752		**18,821,767,841**	
Total Non-current assets	**(a)**	**49,622,647,479**		**61,803,828,479**	
Current assets					
Inventories	11)	165,171,260		143,772,151	
Trade and miscellaneous receivables and other current assets	12)	3,930,749,146	*774,180,000*	3,464,016,413	*280,258,000*
Current income tax receivables	10)	42,862,793		39,809,071	
Investments					
Current financial assets					
Current financial receivables arising from lease contracts		*39,660,799*	*3,963,000*	*44,356,056*	*2,749,000*
Securities other than investments, other financial receivables and other current financial assets		*115,703,711*	*13,438,000*	*110,022,447*	*9,960,000*
Cash and cash equivalents		3,558,280,626	*26,437,000*	**1,765,441,712**	*92,297,000*
	8)	**3,713,645,136**		**1,919,820,215**	
Total Current assets	**(b)**	**7,852,428,335**		**5,567,417,850**	
Total Assets	**(a+b)**	**57,475,075,814**		**67,371,246,329**	

Equity and Liabilities

(euros)	notes	12/31/2021	*of which with related parties*	12/31/2020	*of which with related parties*
Equity	13)				
Capital issued		11,677,002,855		11,677,002,855	
less: Treasury shares		(63,390,972)		(19,234,377)	
Share capital		**11,613,611,883**		**11,657,768,478**	
Additional paid-in capital		**2,133,374,023**		**2,133,374,023**	
Legal reserve		**2,335,400,571**		**2,312,977,576**	
Other reserves					
Reserve for remeasurements of employee defined benefit plans (IAS 19)		(117,166,484)		(106,381,744)	
Other		1,555,920,360		1,311,892,366	
Total Other reserves		**1,438,753,876**		**1,205,510,622**	
Retained earnings (accumulated losses), including profit (loss) for the year		**(956,760,232)**		**7,698,445,058**	
Total Equity	**(c)**	**16,564,380,121**		**25,008,075,757**	
Non-current liabilities					
Non-current financial liabilities for financing contracts and others	14)	21,876,291,105	*5,537,738,000*	24,440,361,873	*5,665,036,000*
Non-current financial liabilities for lease contracts	14)	2,743,426,675	*297,686,000*	3,505,783,671	*809,746,000*
Employee benefits	19)	641,396,452		676,081,097	
Deferred tax liabilities	10)			—	
Provisions	20)	632,876,811		618,128,216	
Miscellaneous payables and other non-current liabilities	21)	1,195,633,722	*34,631,000*	3,477,543,318	*161,586,000*
Total Non-current liabilities	**(d)**	**27,089,624,765**		**32,717,898,175**	
Current liabilities					
Current financial liabilities for financing contracts and others	14)	5,045,176,012	*480,595,000*	3,341,906,670	*293,144,000*
Current financial liabilities for lease contracts	14)	433,804,853	*79,065,000*	462,721,808	*63,347,000*
Trade and miscellaneous payables and other current liabilities	22)	8,111,207,332	*922,799,000*	5,609,421,674	*497,665,000*
Current income tax payables	10)	230,882,731		231,222,245	
Total Current Liabilities	**(e)**	**13,821,070,928**		**9,645,272,397**	
Total Liabilities	**(f=d+e)**	**40,910,695,693**		**42,363,170,572**	
Total Equity and Liabilities	**(c+f)**	**57,475,075,814**		**67,371,246,329**	

SEPARATE INCOME STATEMENTS

(euros)	notes	Year 2021	of which with related parties	Year 2020	of which with related parties
Revenues	24)	**12,396,902,360**	*1,122,021,000*	**12,029,901,155**	*311,682,000*
Other income	25)	321,723,135	*89,687,000*	188,895,769	*8,188,000*
Total operating revenues and other income		**12,718,625,495**		**12,218,796,924**	
Acquisition of goods and services	26)	(6,758,756,861)	*(2,424,697,000)*	(4,610,694,132)	*(1,015,398,000)*
Employee benefits expenses	27)	(2,452,964,944)	*(96,215,000)*	(2,192,697,306)	*(78,483,000)*
Other operating expenses	28)	(1,178,698,048)	*(3,654,000)*	(605,118,222)	*(2,489,000)*
Change in inventories	29)	21,315,460		(11,769,401)	
Internally generated assets	30)	287,648,513		381,424,171	
Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)		**2,637,169,615**		**5,179,942,034**	
of which: impact of non-recurring items	38)	*(1,133,505,000)*		*(311,004,000)*	
Depreciation and amortization	31)	(2,995,759,078)	*(75,895,000)*	(3,581,638,098)	*(141,558,000)*
Gains/(losses) on disposals of non-current assets	32)	(43,307,726)	*(39,953,000)*	(14,850,367)	*3,489,000*
Impairment reversals (losses) on non-current assets	33)	(4,120,130,346)		(7,738,314)	
Operating profit (loss) (EBIT)		**(4,522,027,535)**		**1,575,715,255**	
of which: impact of non-recurring items	38)	*(5,253,505,000)*		*(311,004,000)*	
Income/(expenses) from investments	34)	834,404,341	*835,675,000*	551,366,213	*331,004,000*
Finance income	35)	1,075,737,527	*373,300,000*	1,012,294,893	*320,045,000*
Finance expenses	35)	(1,983,730,932)	*(672,113,000)*	(1,972,897,516)	*(574,275,000)*
Profit (loss) before tax		**(4,595,616,599)**		**1,166,478,845**	
of which: impact of non-recurring items	38)	*(5,246,014,000)*		*(91,116,000)*	
Income tax expense	10)	(3,718,391,399)		5,994,990,200	
Profit (loss) for the year		**(8,314,007,998)**		**7,161,469,045**	
of which: impact of non-recurring items	38)	*(8,761,083,000)*		*5,831,279,000*	

STATEMENTS OF COMPREHENSIVE INCOME

Note 13

(euros)		Year 2021	Year 2020
Profit (loss) for the year	**(a)**	**(8,314,007,998)**	**7,161,469,045**
Other components of the Statements of Comprehensive Income			
Other components that will not be reclassified subsequently to Separate Income Statements			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		7,131,708	(4,533,712)
Income tax effect		(71,306)	51,646
	(b)	**7,060,402**	**(4,482,066)**
Remeasurements of employee defined benefit plans (IAS19):			
Actuarial gains (losses)		(14,190,447)	5,504,153
Income tax effect		3,405,707	(1,320,997)
	(c)	**(10,784,740)**	**4,183,156**
Share of other comprehensive income (losses) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Income tax effect		—	—
	(d)	**—**	**—**
Total other components that will not be reclassified subsequently to Separate Income Statements	**(e=b+c+d)**	**(3,724,338)**	**(298,910)**
Other components that will be reclassified subsequently to Separate Income Statements			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		(5,203,379)	4,056,453
Loss (profit) transferred to the Separate Income Statement		—	—
Income tax effect		1,248,811	(973,549)
	(f)	**(3,954,568)**	**3,082,904**
Hedging instruments:			
Profit (loss) from fair value adjustments		538,103,786	(409,582,216)
Loss (profit) transferred to the Separate Income Statement		(185,027,966)	312,250,000
Income tax effect		(84,738,197)	23,359,732
	(g)	**268,337,623**	**(73,972,484)**
Share of other comprehensive income (losses) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Loss (profit) transferred to the Separate Income Statements		—	—
Income tax effect		—	—
	(h)	**—**	**—**
Total other components that will be reclassified subsequently to Separate Income Statements	**(i= f+g+h)**	**264,383,055**	**(70,889,580)**
Total other components of the Statements of Comprehensive Income	**(k= e+i)**	**260,658,717**	**(71,188,490)**
Total comprehensive income (loss) for the year	**(a+k)**	**(8,053,349,281)**	**7,090,280,555**

STATEMENTS OF CHANGES IN EQUITY

Changes in Equity from January 1 to December 31, 2020

(euros)	Share capital	Additional paid-in capital	Reserve for financial assets measured through fair value adjustment through other comprehensive income (*)	Reserve for hedging instruments	Reserve for remeasurements of employee defined benefit plans (IAS 19) (*)	Other reserves and retained earnings (accumulated losses), including profit (loss) for the year	**Total Equity**
Balance at December 31, 2020	**11,656,283,247**	**2,094,207,410**	**11,533,497**	**(1,139,613,769)**	**(110,564,900)**	**5,662,447,002**	**18,174,292,487**
Changes in equity during the year:							
Dividends approved						(317,443,700)	**(317,443,700)**
Total comprehensive income (loss) for the year			(1,399,162)	(73,972,484)	4,183,156	7,161,469,045	**7,090,280,555**
Merger by incorporation surplus of HR Services S.r.l. into TIM S.p.A.						11,758,020	**11,758,020**
Broad-Based Share Ownership Plan 2020		39,166,613				4,649,454	**43,816,067**
Issue of equity instruments						3,867,672	**3,867,672**
Other changes	1,485,231					19,425	**1,504,656**
Balance at December 31, 2020	11,657,768,478	2,133,374,023	10,134,335	(1,213,586,253)	(106,381,744)	12,526,766,918	**25,008,075,757**

Changes in Equity from January 1 to December 31, 2021 – Note 13

(euros)	Share capital	Additional paid-in capital	Reserve for financial assets measured at fair value through other comprehensive income	Reserve for hedging instruments	Reserve for remeasurements of employee defined benefit plans (IAS 19)	Other reserves and retained earnings (accumulated losses), including profit (loss) for the year	**Total Equity**
Balance at December 31, 2020	11,657,768,478	2,133,374,023	10,134,335	(1,213,586,253)	(106,381,744)	12,526,766,918	**25,008,075,757**
Changes in equity during the year:							
Dividends approved						(318,774,296)	**(318,774,296)**
Total comprehensive income (loss) for the year			3,105,834	268,337,623	(10,784,740)	(8,314,007,998)	**(8,053,349,281)**
Treasury shares	(44,156,595)					12,832,771	**(31,323,824)**
Other changes						(40,248,235)	**(40,248,235)**
Balance at December 31, 2021	**11,613,611,883**	**2,133,374,023**	**13,240,169**	**(945,248,630)**	**(117,166,484)**	**3,866,569,160**	**16,564,380,121**

STATEMENTS OF CASH FLOWS

(euros)	notes	Year 2021	Year 2020
Cash flows from operating activities:			
Profit (loss) for the year		(8,314,007,998)	7,161,469,045
Adjustments for:			
Depreciation and amortization	31)	2,995,759,078	3,581,638,098
Impairment losses (reversals) on non-current assets (including investments)		4,125,301,000	43,102,000
Net change in deferred tax assets and liabilities		3,843,396,000	(6,433,126,000)
Losses (gains) realized on disposals of non-current assets (including investments)		34,719,000	(211,775,000)
Change in provisions for employee benefits		(83,211,000)	(610,592,000)
Change in inventories		(21,315,000)	11,770,000
Change in trade receivables		(261,717,000)	216,587,000
Change in trade payables		518,520,000	(22,869,000)
Net change in income tax receivables/payables		(235,823,000)	693,552,000
Net change in miscellaneous receivables/payables and other assets/liabilities		(225,818,351)	56,594,416
Cash flows from (used in) operating activities	**(a)**	**2,375,802,729**	**4,486,350,559**
Cash flows from investing activities:			
Purchases of intangible, tangible and rights of use assets on a cash basis		(2,200,937,000)	(2,285,445,000)
Contributions for plants received		3,121,000	23,982,000
Change in cash arising from corporate actions	7)	4,164,000	50,524,000
Acquisitions/disposals of other investments		(130,453,000)	(101,314,000)
Change in financial receivables and other financial assets (excluding hedging and non-hedging derivatives under financial assets)		1,152,516,000	(61,272,000)
Proceeds received from the sale of investments in subsidiaries		—	—
Proceeds from sale/repayments of intangible, tangible, rights of use assets and other non-current assets		53,304,000	1,821,958,000
Cash flows from (used in) investing activities	**(b)**	**(1,118,285,000)**	**(551,567,000)**
Cash flows from financing activities			
Change in current financial liabilities and other		(182,389,000)	(732,399,000)
Proceeds from non-current financial liabilities (including current portion)		2,100,000,000	1,022,437,000
Repayments of non-current financial liabilities (including current portion)		(2,600,481,000)	(2,808,685,000)
Changes in hedging and non-hedging derivatives		103,460,000	92,667,000
Proceeds for increases/repayment of capital		—	7,849,000
Dividends paid (*)		(317,662,000)	(317,139,000)
Changes in ownership interests in consolidated subsidiaries		1,758,634,000	—
Cash flows from (used in) financing activities	**(c)**	**861,562,000**	**(2,735,270,000)**
Aggregate cash flows	**(d=a+b+c)**	**2,119,079,729**	**1,199,513,559**
Net cash and cash equivalents at beginning of the year	**(e)**	**1,244,877,363**	**45,363,804**
Net cash and cash equivalents at end of the year	**(f=d+e)**	**3,363,957,092**	**1,244,877,363**
(*) of which from related parties:		**(52,762,635)**	(37,686,924)

Purchases of intangible, tangible and rights of use assets

(euros)	notes	Year 2021	Year 2020
Purchase of intangible assets	4)	(1,054,406,000)	(959,315,000)
Purchase of tangible assets	5)	(1,167,415,000)	(1,467,357,000)
Purchase of rights of use assets	6)	(324,830,000)	**(946,769,000)**
Total purchase of intangible, tangible and rights of use assets on an accrual basis (*)		**(2,546,651,000)**	**(3,373,441,000)**
Change in payables arising from purchase of intangible, tangible and rights of use assets		345,714,000	1,087,996,000
Total purchase of intangible, tangible and rights of use assets on a cash basis		**(2,200,937,000)**	**(2,285,445,000)**
(*) of which from related parties:		100,301,000	565,708,000

Additional Cash Flow information

(euros)	Year 2021	Year 2020
Income taxes (paid) received	(206,070,000)	249,301,000
Interest expense paid	(1,296,135,000)	(1,389,399,000)
Interest income received	503,793,000	465,448,000
Dividends received	780,219,000	331,127,000

Analysis of Net Cash and Cash Equivalents

(euros)	Year 2021	Year 2020
Net cash and cash equivalents at the start of the year:		
Cash and cash equivalents	1,765,441,712	829,022,799
Bank overdrafts repayable on demand	(520,564,349)	(783,658,995)
	1,244,877,363	**45,363,804**
Net cash and cash equivalents at the end of the year:		
Cash and cash equivalents	3,558,280,626	1,765,441,712
Bank overdrafts repayable on demand	(194,323,534)	(520,564,349)
	3,363,957,092	**1,244,877,363**

The additional disclosures required by IAS 7 are provided in the Note “Net financial debt” to these Separate Financial Statements.

NOTE 1

FORM, CONTENT AND OTHER GENERAL INFORMATION

Form and content

Telecom Italia, TIM in brief, is a joint-stock company (S.p.A.) organized under the laws of the Republic of Italy.
The registered offices of TIM S.p.A. are located in Milan, Italy, at Via Gaetano Negri 1.
The duration of TIM S.p.A., as stated in the company's bylaws, extends until December 31, 2100.
TIM S.p.A. operates in Italy in the fixed and mobile telecommunications sector.
The TIM S.p.A. separate financial statements at December 31, 2021 have been prepared on a going concern basis (further details are provided in the Note "Accounting Policies") and in accordance with the International Financial Reporting Standards issued by the International Accounting Standards Board and endorsed by the European Union (designated as "IFRS"), as well as laws and regulations in force in Italy.
It should also be noted that in 2021 TIM S.p.A. applied accounting standards consistent with those of the previous year.
The separate financial statements have been prepared under the historical cost convention except for financial assets measured at fair value through other comprehensive income, financial assets measured at fair value through profit or loss and derivative financial instruments which have been measured at fair value. The carrying amounts of hedged assets and liabilities have been adjusted to reflect the changes in fair value of the hedged risks (fair value hedge).
In accordance with IAS 1 (Presentation of Financial Statements) comparative information included in the consolidated financial statements refers, unless otherwise indicated, to the previous year.
The statements of financial position, the separate income statements, the statements of comprehensive income, the statements of changes in equity and the statements of cash flows are presented in euros (without cents) and the notes to these separate financial statements in millions of euros, unless otherwise indicated.
The publication of TIM S.p.A.'s separate financial statements for the year ended December 31, 2021 was approved by resolution of the Board of Directors on March 02, 2022.
However, final approval of the TIM S.p.A. separate financial statements rests with the shareholders' meeting.

Financial statement formats

The financial statement formats adopted are consistent with those indicated in IAS 1. In particular:

- the **separate statements of financial position** have been prepared by classifying assets and liabilities according to the "current and non-current" criterion;
- the **separate income statement** has been prepared by classifying operating expenses by nature of expense, as this form of presentation is considered more appropriate and representative of the specific business of the Company, conforms to internal reporting and is in line with industry practice.
  In addition to EBIT or Operating profit (loss), the separate income statement includes the alternative performance measure of EBITDA or Operating profit (loss) before depreciation and amortization, Capital gains (losses) and Impairment reversals (losses) on non-current assets.

  In particular, besides EBIT, EBITDA is used by TIM as the financial target in internal presentations (business plans) and in external presentations (to analysts and investors). It represents a useful unit of measurement for the evaluation of the operating performance of TIM S.p.A. EBIT and EBITDA are calculated as follows:

Profit (loss) before tax from continuing operations	
+	Finance expenses
-	Finance income
+/-	Income (Expenses) from investments
EBIT – Operating profit (loss)	
+/-	Impairment losses (reversals) on non-current assets
+/-	Losses (gains) on disposals of non-current assets
+	Depreciation and amortization
EBITDA – Operating profit before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets	

- the **statements of comprehensive income** include the profit or loss for the year as shown in the separate income statements and all other non-owner changes in equity;
- the **statement of cash flows** has been prepared by presenting cash flows from operating activities according to the "indirect method", as permitted by IAS 7 (Statement of Cash Flows).

Furthermore, as required by Consob Resolution 15519 of July 27, 2006, in the separate income statement, income and expenses relating to transactions, which by nature do not occur during normal operation (non-recurring transactions) have been specifically identified and their impact has been shown separately, when they are significant. Specifically, non-recurring income/(expenses) include, for instance: income/expenses arising from the sale of properties, plant and equipment, business segments and investments; expenses stemming from company reorganization and streamlining processes and projects, also in connection with corporate transactions (mergers, spin-offs, etc.); expenses resulting from litigation and regulatory fines and related liabilities; other provisions and related reversals; costs for the settlement of disputes other than regulatory disputes; adjustments, realignments and other non-recurring items, also relating to previous years; impairment losses on goodwill and/or other intangible and tangible assets. Certain costs related to the COVID-19 pandemic are also identified as non-recurring charges.
Also in reference to the above Consob Resolution, the amounts relating to balances or transactions with related parties have been shown separately in the financial statements.

NOTE 2
ACCOUNTING POLICIES

Going concern

The separate financial statements for the year 2021 have been prepared on a going concern basis as there is the reasonable expectation that TIM S.p.A. will continue its operational activities in the foreseeable future (and in any event for a time horizon of at least twelve months).
In particular, the following factors have been taken into consideration:

- the main risks and uncertainties (that are for the most part of an external nature) to which TIM is exposed:
  - the changes in the general macroeconomic situation in the Italian, European and Brazilian market, including the effects deriving from the continued state of COVID-19 health emergency, as well as the volatility of financial markets in the Eurozone, partly following the UK's Brexit;
  - variations in business conditions, also related to competition;
  - changes to laws and regulations (price and rate variations);
  - outcomes of legal disputes and proceedings with regulatory authorities, competitors and other parties;
  - financial risks (interest rate and/or exchange rate trends, changes in the Group's credit rating by rating agencies);
- the optimal mix between risk capital and debt capital, as well as the policy for the remuneration of risk capital, as described in the section "Share capital information" under the Note "Equity";
- the policy for financial risk management (market risk, credit risk and liquidity risk), as described in the Note "Financial risk management".

Based on these factors, the Management believes that, at the present time, there are no elements of uncertainty regarding TIM S.p.A.'s ability to continue as a going concern.

Intangible assets

Goodwill

In accordance with IFRS 3 (Business Combinations), goodwill is recognized in the financial statements at the acquisition date (including through mergers or conferrals) of companies or business units and is calculated as the difference between the consideration paid (measured in accordance with IFRS 3, generally determined on the basis of the fair value at the acquisition date) and the fair value at the acquisition date of the identifiable assets acquired net of the identifiable liabilities assumed.
Goodwill is classified in the statements of financial position as an intangible asset with an indefinite useful life, whereas any gain from a bargain purchase or negative goodwill is recognized in the separate income statement.
Goodwill initially recognized is subsequently reduced only by cumulative impairment losses (for more details, see the section "Impairment of intangible assets, tangible assets and rights of use assets - Goodwill", below).

Development costs

Costs incurred internally for the development of new products and services represent either intangible assets (mainly costs for software development) or tangible assets. These costs are capitalized only when all the following conditions are satisfied: i) the cost attributable to the development phase of the asset can be measured reliably, ii) there is the intention, the availability of financial resources and the technical ability to complete the asset and make it available for use or sale, and iii) it can be demonstrated that the asset will be able to generate future economic benefits. Capitalized development costs comprise only incurred expenditures that can be attributed directly to the development process for new products and services.
Capitalized development costs are amortized/depreciated systematically over the estimated product or service life, so that the depreciation/amortization method reflects the way in which the asset's future economic benefits are expected to be consumed by the entity.

Other intangible assets with a finite useful life

Other purchased or internally-generated intangible assets with a finite useful life are recognized as assets, in accordance with IAS 38 (Intangible Assets), when the use of the asset is likely to generate future economic benefits and when the cost of the asset can be reliably measured.
Such assets are recorded at purchase or production cost and amortized on a straight-line basis over their estimated useful lives; the amortization rates are reviewed annually and revised if the current estimated useful life is different from that estimated previously. The effect of such changes is recognized in the separate income statements prospectively.

Tangible assets

Property, plant and equipment

Property, plant and equipment are recognized at purchase or production cost. Subsequent expenditures are capitalized only if they increase the future economic benefits embodied in the related item of property, plant and equipment. All other expenditures are expensed as incurred.
The cost of these assets also includes the expected costs of dismantling the asset and restoring the site, if a legal or constructive obligation exists. The corresponding liability is recognized at its present value as a provision in the statement of financial position. These capitalized costs are depreciated and charged to the separate income statements over the useful life of the related tangible assets.
The calculation of estimates for dismantling costs, discount rates and the dates in which such costs are expected to be incurred is reviewed annually at each financial year-end. Changes in the above liability must be recognized as an increase or decrease of the cost of the relative asset; the amount deducted from the cost of the asset must not exceed its carrying amount. The excess if any, should be recorded immediately in the separate income statements, conventionally under the line item "Depreciation".
Depreciation is calculated on a straight-line basis over the estimated useful life of the assets. Depreciation rates are reviewed annually and revised if the current estimated useful life is different from that estimated previously. The effect of such changes is recognized in the separate income statements prospectively.
Land, including land pertaining to buildings, is not depreciated.

Rights of use assets

In accordance with IFRS 16, lease liabilities are presented through the recognition of a financial liability in the statement of financial position consisting in the present value of future lease payments, against the recognition of the right of use of the leased asset.
On the commencement date of the lease, the right of use is recognized at cost including: the amount of the initial measurement of the lease liability, any lease payments made at or before the commencement date, initial direct costs incurred for the signature of the lease and the present value of the estimated restoration and dismantling costs set out in the lease, less any incentives.
Subsequently, the right of use is amortized over the term of the lease (or the useful life of the asset, if lower), subject to impairment and adjusted for any remeasurement of the lease liability.
It is specified that starting January 1, 2021, TIM has attracted, under the scope of application of IFRS 16, if the criteria and the requirements laid down by the standard are met, the new contract types concerning cloud software resources and the spectrum of transmission frequencies on optic fiber carriers. This approach is functional to the very innovative specificity of these types of contract, concerning hardware infrastructure and optical transmission as well as technologically-advanced software services.

Impairment of intangible, tangible and rights of use assets

Goodwill

Goodwill is tested for impairment at least annually or more frequently whenever events or changes in circumstances indicate that goodwill may be impaired, as set forth in IAS 36 (Impairment of Assets); however, when the conditions that gave rise to an impairment loss no longer exist, the original amount of goodwill is not reinstated.

The test is generally conducted at the end of every year, so the date of testing is the year-end closing date of the financial statements. Goodwill acquired and allocated during the year is tested for impairment at the end of the year in which the acquisition and allocation took place.

For the purpose of verifying its recoverability, goodwill is allocated, from the acquisition date, to each of the cash-generating units, or groups of cash-generating units, that is expected to benefit from the combination.

If the carrying amount of the cash-generating unit (or group of cash-generating units) exceeds the recoverable amount, an impairment loss is recognized in the separate income statement. The impairment loss is first recognized as a deduction of the carrying amount of goodwill allocated to the cash-generating unit (or group of cash-generating units) and only subsequently applied to the other assets of the cash-generating unit in proportion to their carrying amount, up to the recoverable amount of the assets with a finite useful life. The recoverable amount of a cash-generating unit (or group of cash-generating units) to which goodwill is allocated is the higher between the fair value less costs to sell and its value in use.

The fair value net of disposal costs is estimated on the basis of the income approach, insofar as this allows for the reflection of the benefits deriving from a new, different business structure in the future. In particular, the fair value net of disposal costs is based on the current value of the forecast cash flow, applying a discounting rate that reflects current market assessments of the time value of money and the risks specific to the asset. The future cash flows are those arising from an explicit time horizon between three and five years, as well as those extrapolated to estimate the terminal value.

In calculating the value in use, the estimated future cash flows are discounted to present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. The future cash flows are those arising from an explicit time horizon between three and five years, as well as those extrapolated to estimate the terminal value. The long-term growth rate used to estimate the terminal value of the cash-generating unit (or group of cash-generating units) is assumed not to be higher than the average long-term growth rate of the segment or market in which the cash-generating unit (or group of cash-generating units) operates.

Future cash flows are estimated by referring to the current operating conditions of the cash-generating unit (or group of cash-generating units) and, therefore, do not include either benefits originating from future restructuring for which the entity is not yet committed, or future investments for the improvement or optimization of the cash-generating unit.

For the purpose of calculating impairment, the carrying amount of the cash-generating unit is established based on the same criteria used to determine the recoverable amount of the cash-generating unit, excluding surplus assets (that is, financial assets, deferred tax assets and net non-current assets held for sale).

After conducting the goodwill impairment test for the cash-generating unit (or groups of cash-generating units), a second level of impairment testing is carried out which includes the corporate assets which do not generate positive cash flows and which cannot be allocated by a reasonable and consistent criterion to the single units. At this second level, the total recoverable amount of all cash-generating units (or groups of cash-generating units) is compared to the carrying amount of all cash-generating units (or groups of cash-generating units), including also those cash-generating units to which no goodwill was allocated, and the corporate assets.

Tangible and intangible assets with finite useful lives and rights of use assets

At the end of each reporting period, the Company assesses whether there is any indication that an asset – whether tangible or intangible with finite useful lives or a right of use – may be impaired. Both internal and external sources of information are used for this purpose. Internal sources include obsolescence or physical deterioration, and significant changes in the use of the asset and the economic performance of the asset compared to estimated performance. External sources include the market value of the asset, changes in technology, markets or laws, trend in market interest rates and the cost of capital used to evaluate investments, and an excess of the carrying amount of the net assets of the Company over market capitalization.
If there is any indication that an asset – whether tangible or intangible with finite useful lives or a right of use – has been impaired, then its carrying amount is reduced to its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell, and its value in use. In calculating the value in use, the estimated future cash flows are discounted to present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or right. Where it is not possible to estimate the recoverable amount, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs. Impairment losses are recognized in the separate income statement.
When the reasons for the impairment subsequently cease to exist, the carrying value of the asset/ right of use or of the cash generating unit is increased up to the new estimate of the recoverable amount which, however, cannot exceed the amount that would have been determined had no impairment loss been recognized. The reversal of an impairment loss is recognized as income in the separate income statements.

Financial instruments

Business models for financial assets management

For the management of trade receivables, Company Management has identified different business models based on the specific nature of the receivables, the type of counterparty and collection times, this was in order to optimize the management of working capital through the constant monitoring of the payment performance of customers, the steering of credit collection policies, and the management of programs for the disposal of receivables,
and the activation of factoring consistent with financial planning requirements.
The business models adopted are:

- Hold to Collect: receivables usually held to maturity, such as trade receivables due from large customers and the OLOs; these instruments fall within IFRS 9 category “Assets measured at amortized cost”. These receivables can be transferred, albeit not recurrently, if this is needed to optimize finances;
- Hold to Collect and Sell: receivables usually traded massively and on a recurring basis, such as receivables due from active consumer, small and business customers held for sale; these instruments fall under IFRS 9 category "Financial assets measured at fair value through other comprehensive income". As required by IFRS 9, the related reserve is reversed to the separate income statements when disposed of or impaired.

As part of managing financial assets other than trade receivables, Company Management has identified its business models on the basis of how the financial instruments are managed and how their cash flows are used. This is done to ensure an adequate level of financial flexibility and to best manage, in terms of risks and returns, the financial resources immediately available and in accordance with the strategies.
The Business Models adopted are the following:

- Hold to Collect: financial instruments used to absorb temporary cash surpluses; such instruments are low risk and mostly held to maturity; they are measured at amortized cost;
- Hold to Collect and Sell: monetary or debt instruments used to absorb short/medium-term cash surpluses; such instruments are low risk and generally held to maturity, or otherwise sold to cover specific cash requirements; they are measured at fair value through other comprehensive income;

- Hold to Sell: monetary, debt and equity trading instruments used to dynamically manage cash surpluses not managed under the business models identified above; such instruments are higher risk and traded repeatedly over time; they are measured at fair value through profit or loss.

Investments in subsidiaries, associates and joint ventures

Investments in subsidiaries, associates and joint ventures are measured at cost adjusted by impairment losses. When there is objective evidence of an impairment, recoverability is verified by comparing the carrying amount of the investment against its recoverable amount consisting of the greater of fair value, net of disposal costs, and value in use.

Other investments

Other investments (other than those in subsidiaries, associates and joint ventures) are classified as non-current or current assets if they will be kept in the Company's portfolio for a period of more or not more than 12 months, respectively.

Other investments are classified as "financial assets measured at fair value through profit or loss" (FVTPL), as current assets.

At the purchase time of each investment, IFRS 9 provides for the irrevocable option to recognize these investments in "financial assets measured at fair value through other comprehensive income" (FVTOCI) as non-current or current assets.

The other investments classified as "financial assets measured at fair value through other comprehensive income" are measured at fair value; changes in the fair value of these investments are recognized in a special equity reserve under the other components of the statements of comprehensive income (Reserve for financial assets measured at fair value through other comprehensive income), without reclassification to the separate income statement when the financial asset is disposed of or impaired. Dividends, on the other hand, are recognized in the separate income statements.
Changes in the value of other investments classified as "financial assets at fair value through separate profit or loss" are recognized directly in the separate income statements.

Securities other than investments

Securities other than investments, included among non-current or current assets, depending on the business model adopted and the contractual flows envisaged, fall among financial assets measured at amortized cost, or measured at fair value through other comprehensive income or at fair value though profit or loss.
Securities other than investments, classified as current assets, are those that, by decision of the directors, are intended to be kept in TIM S.p.A.'s portfolio for a period of not more than 12 months, and are included:

- as "financial assets measured at amortized cost" (AC) when held to maturity (originally more than 3 months but less than 12 months, or, although they had an original maturity of more than 12 months, they have been bought in a period during which maturity was included between 3 and 12 months);
- as "financial assets measured at fair value through other comprehensive income" (FVTOCI) when held in the scope of a business model whose objective is to sell the financial asset and/or collect the contractual flows. The "Reserve for financial assets measured at fair value through other comprehensive income" is reversed to the separate income statements when the financial asset is disposed of or impaired;
- as "financial assets measured at fair value through profit or loss" (FVTPL) in the other cases.

Cash and cash equivalents

Cash and cash equivalents are recorded, according to their nature, at nominal value or amortized cost.
Cash equivalents are short-term and highly liquid investments that are readily convertible to known amounts of cash, subject to an insignificant risk of change in value and their original maturity or the remaining maturity at the date of purchase does not exceed 3 months.

Impairment of financial assets

At every closing date, assessments are made as to whether there is any objective evidence that a financial asset or a group of financial assets has been impaired.
The impairment of financial assets is based on the expected credit loss model.
In particular:

- impairment on trade receivables and on contract assets is carried out using the simplified approach that involves estimating the loss expected over the life of the receivable at the time of initial recognition and on subsequent measurements. For each customer segment, the estimate is principally made by calculating the average expected uncollectibility, based on historical and statistical indicators, possibly adjusted using forward-looking elements. For some categories of receivables characterized by specific risk elements, specific measurements are made on individual credit positions;
- the impairment of financial assets other than trade receivables is calculated on the basis of a general model which estimates expected credit losses over the following 12 months or over the residual life of the asset in the event of a substantial worsening of its credit risk.

Derivative financial instruments

As allowed by IFRS 9, the Company decided to continue to apply the hedge accounting provisions contained in IAS 39 instead of those of IFRS 9.

Derivatives are used by the Company to manage its exposure to exchange rate and interest rate risks and to diversify the parameters of debt so that costs and volatility can be reduced to within pre-established operational limits.
In accordance with IAS 39, derivative financial instruments qualify for hedge accounting only when:

- at the inception of the hedge, the hedging relationship is formally designated and documented;
- the hedge is expected to be highly effective;
- its effectiveness can be reliably measured;
- the hedge is highly effective throughout the financial reporting periods for which it is designated.

All derivative financial instruments are measured at fair value in accordance with IAS 39.
When derivative financial instruments qualify for hedge accounting, the following accounting treatment applies:

- Fair value hedge – Where a derivative financial instrument is designated as a hedge of the exposure to changes in fair value of an asset or liability due to a particular risk, the gain or loss from re-measuring the hedging instrument at fair value is recognized in the separate income statements. The gain or loss on the hedged item attributable to the hedged risk adjusts the carrying amount of the hedged item and is recognized in the separate income statement.
- Cash flow hedge – Where a derivative financial instrument is designated as a hedge of the exposure to variability in cash flows of an asset or liability or a highly probable expected transaction, the effective portion of any gain or loss arising from the fair value adjustment of the derivative financial instrument is recognized directly in a specific equity reserve (Reserve for fair value adjustment of hedging derivative instruments). The cumulative gain or loss is removed from equity and recognized in the separate income statement at the same time the hedged transaction affects the separate income statement. The gain or loss associated with the ineffective portion of a hedge is recognized in the separate income statement immediately. If the hedged transaction is no longer probable, the cumulative gains or losses included in the equity reserve are immediately recognized in the separate income statement.

For derivatives for which a hedging relationship has not been designated, changes in value compared to initial recognition are recognized directly in the separate income statement.

Financial liabilities

Financial liabilities include financial payables, including payables for advances on assignments of receivables where the assignment does not transfer substantially all the risks and rewards, as well as other financial liabilities, including derivative financial instruments and liabilities in respect of assets recognized under finance leases recognized in accordance with IFRS 16.
In accordance with IFRS 9, they also include trade and other payables.
Reverse factoring transactions are also classified under trade payables. TIM has put in place reverse factoring agreements through which TIM gives partner banks a mandate to pay its suppliers as invoices become due. Suppliers participating in these programs have the right to sell (without any cost for TIM) receivables due from TIM. They can exercise this right at their total discretion and incurring all the costs to benefit from collection before the contractual due date.
Financial liabilities other than derivatives are initially recognized at fair value and subsequently measured at amortized cost.

Financial liabilities hedged by derivative instruments designed to manage exposure to changes in fair value of the liabilities (fair value hedge derivatives) are measured at fair value in accordance with the hedge accounting principles of IAS 39. Gains and losses arising from re-measurement at fair value, to the extent of the hedged component, are recognized in the separate income statement and are offset by the effective portion of the gain or loss arising from re-measurement at fair value of the hedging instrument.
Financial liabilities hedged by derivative instruments designed to manage exposure to variability in cash flows (cash flow hedge derivatives) are measured at amortized cost in accordance with the hedge accounting principles of IAS 39.

Transfer of receivables

TIM S.p.A. carries out sales of receivables under factoring and securitization contracts. These transfers, in the majority of cases, are characterized by the transfer of substantially all the risks and rewards of ownership of the receivables to third parties, therefore meeting the requirements of IFRS 9 for derecognition. Special service agreements, under which the purchasers grant TIM S.p.A. a mandate to oversee the collection and management of receivables, have been entered into to maintain the relationship between the Company and its customers.

Inventories

Inventories are measured at the lower of purchase and production cost and estimated realizable value; the cost is determined using the weighted average cost formula for each movement, while the estimated realizable value is determined by observing general prices at the end of the year. Provision is made for obsolete and slow-moving inventories based on their expected future use and estimated realizable value.

Non-current assets held for sale/Discontinued operations

Non-current assets held for sale or disposal groups whose carrying amount will mainly be recovered through sale, rather than through ongoing use, are classified as held for sale and shown separately from other assets and liabilities in the separate statements of financial position. The corresponding amounts for the previous year are not reclassified in the statement of financial position but are instead shown separately in a specific column in the changes in assets and liabilities in the year in which the non-current assets held for sale or the disposal groups are classified as such.
Discontinued operations are a component of an entity that has been terminated or classified as held for sale and that:

- represents a major business line or geographical area of operation; or
- is part of a single coordinated plan to discontinue a separate major line of business or geographical area of operation; or
- is a subsidiary acquired exclusively with a view to resale.

The results arising from Discontinued Operations – whether disposed of or classified as held for sale – are shown separately in the separate income statement, net of tax effects. The corresponding values for the previous periods, where present, are reclassified and reported separately in the separate income statement, net of tax effects, for comparative purposes.
Non-current assets held for sale or discontinued groups classified as held for sale are first recognized in compliance with the appropriate IFRS applicable to each specific asset and liability, and subsequently measured at the lower of the carrying amount and fair value, less cost to sell.
Any subsequent impairment losses are recognized as a direct adjustment to the non-current assets or disposal groups classified as held for sale and expensed in the separate income statement.
An upward revision of value is, instead, recognized for each subsequent increase in the fair value of an asset less cost to sell, but not in excess of the previously recognized cumulative impairment loss.
As required by IFRS 5 (Non-current assets held for sale and discontinued operations), an entity shall not depreciate (or amortize) non-current assets classified as held for sale or being part of a discontinued group.
Finance expenses and other expenses attributable to the liabilities of a discontinued group classified as held for sale must continue to be recognized.

Employee benefits

Provision for employee severance indemnity

Employee severance indemnity, mandatory pursuant to Article 2120 of the Italian Civil Code, is deferred compensation and is based on the employees' years of service and the compensation earned by the employee during the service period.
Under IAS 19 (Employee Benefits), the employee severance indemnity, so calculated, is considered a "Defined benefit plan" and the related liability to be recognized in the statement of financial position (Provision for employee severance indemnities) is determined by actuarial calculations.
The *remeasurements* of actuarial gains and losses are recognized in other components of other comprehensive income. The interest expenses related to the "time value" component of the actuarial calculations (the latter classified as Finance expenses), are recognized in the separate income statement under financial expenses.
Starting from January 1, 2007, the Italian Law gave employees the choice to either allocate their accruing indemnity to supplementary pension funds or it as an obligation of the Company. Companies that employ at least 50 employees must transfer the employee severance indemnity to the "Treasury fund" managed by INPS, the Italian Social Security Institute. Consequently, the Group's obligation to INPS and the contributions to supplementary pension funds take the form, under IAS 19, of "Defined contribution plans".

Equity compensation plans

TIM S.p.A. provides additional benefits to certain managers of the Group companies through equity compensation plans (for example: stock options and long-term incentive plans). The above plans are recognized in accordance with IFRS 2 (*Share-Based Payment*).
In accordance with IFRS 2, such plans represent a component of the beneficiaries' compensation. Therefore, for the plans that provide for compensation in equity instruments, the cost is represented by the fair value of such instruments at the grant date, and is recognized in "Employee benefits expenses", for employees of the Company, and in "Investments", for employees of subsidiaries, over the period between the grant date and vesting date with a contra-entry to an equity reserve denominated "Other equity instruments". Changes in the fair value subsequent to the grant date do not affect the initial measurement. At the end of each year, adjustments are made to the estimate of the number of rights that will vest up to expiry. An adjustment is made to "Other equity instruments" for the impact of the change in estimate with contra-entry to "Employee benefits expenses" or "Investments".
For the portion of the plans that provide for the payment of compensation in cash, the amount is recognized in liabilities as a contra-entry to "Employee benefits expenses" for employees of the Company, and in "Investments", for employees of subsidiaries; at the end of each year such liability is measured at fair value.

Provisions

The Company records provisions for risks and charges when it has a present obligation, legal or constructive, to a third party, as a result of a past event, when it is probable that an outflow of resources will be required to satisfy the obligation and when the amount of the obligation can be estimated reliably. Provisions for risks and charges also include those established in the event that the company should stipulate contracts that thereafter became onerous as the non-discretionary costs necessary to fulfill the commitments made exceed the economic benefits expected from such contracts.
If the effect of the time value is material, and the payment date of the obligations can be reasonably estimated, provisions to be accrued are the present value of the expected cash flows, taking into account the

risks associated with the obligation. The increase in the provision due to the passage of time is recognized as "Finance expenses".

Government grants

Government grants are recognized when there is a reasonable certainty that they will be received and that the Company will satisfy all the conditions established for their granting by the government, government entities and equivalent local, national or international entities.
Government grants are recognized in the separate income statement, on a straight-line basis, over the periods in which the Company recognizes the expenses that the grants are intended to offset as costs.
Government grants related to assets received for the acquisition and/or construction of non-current tangible assets are recorded as deferred income in the statement of financial position and systematically credited to the separate income statement over the useful life of the systems the grants relate to.

Treasury shares

Treasury shares are recognized as a deduction from equity. In particular, the treasury shares are reported as a deduction from the share capital issued in the amount corresponding to the "accounting par value", that is the ratio of total share capital and the number of issued shares, while the excess cost of acquisition over the accounting par value is presented as a deduction from "Other reserves and retained earnings (accumulated losses), including profit (loss) for the year".

Foreign currency transactions

Transactions in foreign currencies are recorded at the foreign exchange rate prevailing at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated at the foreign exchange rate prevailing at the statement of financial position date. Exchange differences arising from the settlement of monetary items or from their conversion at rates different from those at which they were initially recorded during the year or at the end of the prior year, are recognized in the separate income statements.

Revenues

Revenues are the gross inflows of economic benefits during the period arising in the course of the ordinary activities of an entity. Amounts collected on behalf of third parties such as sales taxes, goods and services taxes and value added taxes are not economic benefits which flow to the entity and do not result in increases in equity. Therefore, they are excluded from revenues.

The process underlying the recognition of revenues follows the steps set out in IFRS 15:

- **identification of the contract:** takes place when the parties approve the contract (with commercial substance), and identify the respective rights and obligations: in other terms, the contract must be legally binding, the rights to receive goods and/or services and the terms of payment can be clearly identified and the Company considers receipt of payment as probable;
- **identification of the performance obligations**: the main performance obligations identified, i.e. promises to transfer goods and services that are distinct, are services rendered (including voice and data traffic and ICT solutions) to retail customers, services rendered to wholesale customers, and sale of products;
- **determination of the transaction price:** is the total amount contracted with the other party regarding the entire contractual term. The Company has determined that the contractual term is the one arising from the contractual obligations between the parties or, in lack of these obligations, it is by convention one month;
- **allocation of the transaction price to the performance obligations:** the allocation is made proportionately to the respective stand-alone selling prices calculated based on the list prices (if present) or estimated by applying an appropriate margin to the cost of purchase/production of the good/service.

  Revenues from activating the connectivity service are not a performance obligation; they are therefore allocated to the contractual performance obligations (typically to services).
  For offerings which include the sale of devices and service contracts (bundle offerings), the Company allocates the contractual transaction price to the performance obligations of the contract, proportionately to the stand-alone selling prices of the single performance obligations;
- **recognition of revenues**: revenues are stated net of discounts, allowances, and returns in connection with the characteristics of the type of revenue:
  - **Revenues from services rendered**

    Revenues from services rendered are recognized in the separate income statements according to the stage of completion of the service, that is based on actual consumption.
    Traffic revenues from interconnection and roaming are reported gross of the amounts due to other TLC operators.
    Revenues for delivering information or other content are recognized on the basis of the amount invoiced to the customer, when the service is rendered directly by the Company. In the event that the Company is acting as agent (for example non-geographic numbers) only the commission received from the content provider is recognized as revenue.
    Revenues from prepaid traffic are recorded on the basis of effective consumption. Deferred revenues for traffic already collected but not yet consumed are recorded in “Trade and miscellaneous payables and other current liabilities” in the statements of financial position.

Revenues for services rendered are generally invoiced and collected bimonthly/monthly for retail customers while for wholesale customers, they are invoiced on a monthly basis and due 40 or 60 days after the date of issue, depending on whether they relate to the mobile component (40 days) or fixed component (60 days).

- **Revenues from sales**

  Revenues from sales (telephone products and others) are recognized upon delivery when control of the assets is transferred to the customers.
  The devices sold separately from the services are invoiced at the time of delivery; collection takes place on demand or based on installment plans (up to 48 monthly installments). The devices sold as part of bundle offerings are invoiced at the time of delivery and usually collected in 24, 30 or 48 monthly installments, depending on the type of offer and customer cluster. With specific reference to the mobile products sold to consumer customers, collection is made at the time of sale through the financial company TIMFin, which disburses the loan to the customer.

The recognition of revenues can generate the recognition of an asset or liability deriving from contracts. In particular:

- **Contract assets** are the right to a consideration in exchange for goods or services that have been transferred to the customer, when the right is conditioned on something other than the passage of time.
- **Liabilities deriving from a contract** are the obligation to transfer goods or services to the customer for which the Company has received (or for which it is due) a consideration from the customer.

Contract costs (incremental costs of obtaining a contract and costs to fulfill a contract; mainly technical activation costs and costs for sales network commissions) are deferred and recognized through separate profit or loss depending on the expected term of the contractual relationship with the customers. TIM avails itself of the practical expedient, provided for by IFRS 15, to recognize the incremental costs for obtaining the contract entirely in the income statement, provided the amortization period does not exceed 12 months.

The recoverability of contract assets and deferred costs is periodically assessed.

Research and advertising costs

Research costs and advertising expenses are charged directly to the separate income statements in the year in which they are incurred.

Finance income and expenses

Finance income and expenses are recognized on an accrual basis and include: interest accrued on the related financial assets and liabilities using the effective interest rate method; changes in the fair value of derivatives and other financial instruments measured at fair value through the income statement; gains and losses on foreign exchange and financial instruments (including derivatives).

Dividends

Dividends received are recognized in the separate income statement in the year in which they become receivable following the resolution by the shareholders' meeting for the distribution of dividends of the investee companies.
Dividends payable are reported as a change in equity in the year in which they are approved by the shareholders' meeting.

Income tax expense (current and deferred)

Income tax expense includes all taxes calculated on the basis of the taxable income of the Company.
Current and deferred income taxes are calculated using all the elements and information available at the reporting date, taking into account current laws and considering all the elements that could give rise to uncertainties in the determination of the amounts due to the tax authorities, as provided for in IFRIC 23.
The income tax expense is recognized in the separate income statement, except to the extent that it relates to items directly charged or credited to equity, in which case the related tax effect is recognized in the relevant equity reserves. In the Statements of comprehensive income the amount of income tax expense relating to each item included as "Other components of the Statements of comprehensive income" is indicated.
Deferred tax liabilities / assets are recognized using the "Balance sheet liability method". They are calculated on all temporary differences that arise between the tax base of an asset or liability and the relevant carrying amounts in the separate financial statements. Deferred tax assets relating to unused tax loss carryforwards are recognized to the extent that it is probable that future taxable income will be available against which they can be utilized. Tax assets and liabilities are offset when there is a legally enforceable right of offset. Prepaid tax assets and deferred tax liabilities are determined by adopting the tax rates that are expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.
The other taxes, other than income taxes, are included in "Other operating costs".

Use of accounting estimates

The preparation of separate financial statements and related disclosure in conformity with IFRS requires management to make estimates and assumptions based also on subjective judgments, past experience and assumptions considered reasonable and realistic in relation to the information known at the time of the estimate. Such estimates have an effect on the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, as well as on the amount of revenues and costs during the year. Actual results could differ, even significantly, from those estimates owing to possible changes in the factors considered in the determination of such estimates. Estimates are reviewed periodically.

The most significant accounting estimates that involve a high level of subjective assumptions and judgments by directors are set out below.

Financial statements area	Accounting estimates
Goodwill impairment	The impairment test on goodwill is carried out by comparing the carrying amount of cash-generating units and their recoverable amount. The recoverable amount of a cash-generating unit is the higher of fair value, less costs to sell, and its value in use. This complex valuation process entails the use of methods such as the discounted cash flow method, which uses assumptions to estimate cash flows. The fair value net of disposal costs is based on the current value of forecast cash flow, calculated using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. The recoverable amount depends significantly on the discount rate used in the discounted cash flow model, as well as the expected future cash flows and the growth rate used for the extrapolation. The key assumptions used to determine the recoverable amount for the different cash-generating units, including a sensitivity analysis, are detailed in the Note "Goodwill".
Impairment of tangible and intangible assets with finite useful lives and rights of use assets	At the end of each reporting period, the company assesses whether there is any indication that an asset – whether tangible or intangible with finite useful lives or a right of use – may be impaired. Both internal and external sources of information are used for this purpose. Identifying the impairment indicators, estimating future cash flows and calculating the fair value of each asset requires the Management to make significant estimates and assumptions in calculating the discount rate to be used, and the useful life and residual value of the assets. These estimates can have a significant impact on the fair value of the assets and on the amount of any impairment write-down.
Lease liabilities and rights of use assets	The value of lease liabilities and corresponding rights of use is determined by calculating the present value of the lease payments, also bearing in mind whether the renewal of the lease is reasonably certain.
Capitalization/deferment of costs	The capitalization/deferment of internal and external costs is a process that entails elements of estimation and valuation. Specifically, it involves the valuation of: i) the likelihood that capitalized costs will be recovered through correlated future revenues; and ii) the effective increase in the future economic benefits embodied in the related asset.
Provision for bad debts	Impairment on trade receivables and on contract assets is carried out using the simplified approach that involves estimating the loss expected over the life of the receivable at the time of initial recognition and on subsequent measurements. For each customer segment, the estimate is principally made by calculating the average expected uncollectibility, based on historical and statistical indicators, possibly adjusted using forward-looking elements. For some categories of receivables characterized by specific risk elements, specific measurements are made on individual credit positions.
Depreciation and amortization	Changes in the economic conditions of the markets, technology and competitive forces could significantly affect the estimated useful lives of tangible and intangible non-current assets and may lead to a difference in the timing, and thus on the amount of depreciation and amortization expense.
Accruals, contingent liabilities and provisions for employee benefits	As regards the provisions for restoration costs, the estimate of future costs to dismantle tangible assets and restore the site is a complex process that requires the valuation of the liabilities arising from such dismantling and restoration obligations, which seldom are entirely defined by laws, administrative regulations or contract clauses, and which normally are to be complied with after an interval of several years. The accruals related to legal, arbitration and fiscal disputes, as well as regulatory proceedings, are the result of a complex estimation process based upon the probability of an unfavorable outcome. Provisions for employee benefits, especially the provision for employee severance indemnities, are calculated using actuarial assumptions; changes in such assumptions could have a material impact on such liabilities. Provisions made for contractual risks are also related to any contracts that may have become onerous and are based on an articulated estimation process that envisages the valuation of the comprehensive negative margins of the entire contract; they therefore include the non-discretionary costs necessary to fulfill the commitments made that exceed the economic benefits expected from such contracts.
Revenues	The recognition of revenues is influenced by estimates of the amount of discounts, rebates and returns to be reported as a direct adjustment to revenues, as well as the methods for defining individual product or service stand-alone selling prices and for determining the duration of the contract when there are renewal options.
Contract costs (IFRS 15)	The recognition of the costs of obtaining and fulfilling contracts is influenced by the estimated expected duration of the relationship with the customer, calculated on the basis of the historical turnover indexes and future estimates. However, this estimate is subject to fluctuations and could only represent customers' future behavior in a limited way, especially if there are new commercial offers or changes in the competitive environment.
Income tax expense (current and deferred)	Income tax expense (current and deferred) are calculated according to a prudent interpretation of the tax laws in effect. This process sometimes involves complex estimates to determine taxable income and deductible and taxable temporary differences between the carrying amounts and the taxable amounts. In particular, deferred tax assets are recognized to the extent that future taxable income will be available against which they can be recovered. The measurement of the recoverability of deferred tax assets, recognized based on both unused tax loss carry-forwards to future years and deductible temporary differences, takes into account the estimate of future taxable income and is based on conservative tax planning.
Derivative instruments and equity instruments	The fair value of derivative instruments and equity instruments is determined both using valuation models which also take into account subjective measurements such as, for example, cash flow estimates, expected volatility of prices, etc., and on the basis of prices existing in regulated markets or quotations provided by financial counterparts. For further details refer to the Note "Supplementary disclosures on financial instruments".

As required by IAS 8 (Accounting Policies, Changes in Accounting Estimates and Errors), paragraph 10, in the absence of a Standard or an Interpretation that specifically applies to a particular transaction, Management, through careful subjective evaluation techniques, chooses the accounting methods to adopt with a view to providing financial statements which faithfully represent the financial position, the results of operations and the cash flows of the Company, which reflect the economic substance of the transactions, which are neutral, prepared on a prudent basis and complete in all material respects.

New standards and interpretations endorsed by the EU and in force from January 1, 2021

As required by IAS 8 (Accounting Policies, Changes in Accounting Estimates and Errors), the following is a brief description of the IFRS in force commencing as of January 1, 2021.

Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 Reform of the interest rates benchmark - Phase 2

On January 13, 2021, Regulation (EU) no. 2021/25 was issued, which incorporated a set of amendments to the IFRSs relating to the reform of the interbanking rates offered (IBOR) and other interest rate benchmarks. The amendments aim to help the entities to provide investors with useful information on the effects of the reform on the entities' financial statements.
The amendments integrate those issued in 2019 and focus on the effects of the financial statements when an entity replaces the old interest rate benchmark with an alternative benchmark rate following the reform.
The changes during this final phase regard:

a. changes to contractual cash flows - an entity shall not eliminate or rectify the carrying amount of the financial instruments following the amendments required by the reform, but must instead add the effective interest rate to reflect the change in the alternative benchmark rate;
b. hedge accounting - an entity shall not stop booking the hedges only because the changes have been made to the hedging documentation as required by the reform, if the hedge continues to meet the other criteria for booking the hedge;
c. disclosure: an entity shall disclose information on the new risks deriving from the reform and on how it manages the transition to alternative benchmark rates.

The adoption of these amendments had no effect on the separate financial statements at December 31, 2021.

Amendments to IFRS 16 Leases: COVID-19-related rent concessions beyond June 30, 2021

On August 30, 2021, Regulation (EU) 2021/1421 was issued, endorsing the extension by one year of the period of application of the practical expedient of IFRS 16 Leases, to assist lessees in accounting for COVID-19-related rent concessions.

In response to requests from interested parties, and because the COVID-19 pandemic is still at its peak, the IASB has extended, by an additional year, this method of accounting for rental concessions that reduce only lease payments due by June 30, 2022.

The original amendment was issued in May 2020 to allow lessees not to account for rent concessions as lease modifications if they are a direct consequence of the COVID-19 pandemic. The amendment takes effect for financial years starting on or after April 1, 2021.

The adoption of these amendments had no effect on the separate financial statements at December 31, 2021.

NEW STANDARDS AND INTERPRETATIONS ISSUED BY THE IASB BUT NOT YET APPLICABLE

At the date of preparation of these separate financial statements, the IASB had issued the following new standards / interpretations which have not yet come into force:

	Mandatory application starting from
New Standards / Interpretations endorsed by the EU but not yet in force	
Amendments to: IFRS 3 Business combinations; IAS 16 Property, Plant and equipment; IAS 37 Provisions, Contingent Liabilities and Contingent Assets; Annual cycle of improvements 2018-2020	1/01/2022
Amendments to IAS 1 Presentation of Financial Statements: Disclosure on accounting policies	1/01/2023
Amendments to IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors: Definition of accounting estimates	1/01/2023
New Standards and Interpretations not yet in force and not yet endorsed by the EU	
Amendments to IAS 12 Income taxes: deferred tax related to assets and liabilities arising from a single transaction	1/01/2023
Amendments to IAS 1 Presentation of Financial Statements: classification of liabilities as current or non-current	1/01/2023

The potential impacts on the separate financial statements from application of these new standards and interpretations are currently being assessed.

NOTE 3
GOODWILL

The item at December 31, 2021 amounted to 12,961 million euros, down 10,090 million euros on December 31, 2020, and relates to the goodwill included in the domestic business segment of TIM S.p.A..
The data reflects the conferrals carried out during 2021 and, specifically:

- conferral to Noovle S.p.A., effective January 1, 2021, of the TIM S.p.A. business unit comprising the assets and liabilities and employees involved in the supply of services for the Cloud and Edge Computing business and the rent of spaces, including virtual, also offered through a dedicated network of data centers.
- conferral to FiberCop S.p.A., starting March 31, 2021, of the TIM S.p.A. business unit comprising the goods, assets and liabilities and legal relations organized functionally for the supply of passive fiber or copper access services, used by TIM, and at the service of other authorized operators (OAOs), by means of the secondary network (the “last mile”).

When preparing the 2021 financial statements, TIM S.p.A. verified the recoverability of the goodwill value shown (impairment testing) in compliance with the procedure adopted by the Company, noting a total impairment loss of 4,120 million euros.

The table below shows the changes to Goodwill in 2021:

(million euros)

Goodwill at January 1, 2021	**23,051**
conferral of Green to Noovle	(1,300)
conferral to FiberCop	(4,670)
Goodwill impairment loss	(4,120)
Goodwill at December 31, 2021	**12,961**

In accordance with IAS 36, goodwill is not subject to amortization, but is tested for impairment on at least an annual basis when preparing the company’s separate financial statements.

If the consolidated financial statements should reveal the need to write down the goodwill relating to a given CGU, this write-down must be attributed, on the separate financial statements of TIM S.p.A., to the assets relating to said CGU, which have not already been tested individually, namely goodwill and controlling investments that are part of the same CGU.

As described in the part on Information on the balance sheet - Assets of the consolidated financial statements, the impairment tests carried out with reference to the CGUs on the consolidated financial statements determined the need to write down the goodwill allocated to the Domestic CGU, of which the controlling investments held by TIM S.p.A. in Fibercop, Noovle and Telecom Italia Sparkle,are part.

On the separate financial statements of TIM S.p.A., this goodwill is partly implicitly due to the controlling investments in Telecom Italia Sparkle , Noovle and FiberCop (following the conferral by TIM in 2021 to Noovle and FiberCop, there has been a reduction in the goodwill in the separate financial statements of TIM for allocation to the controlling investment and related inclusion in the respective carrying amounts) and partly to goodwill of the Parent company.

As the estimate of the recoverable amount of the aforementioned investments exceeds the respective carrying amount, the goodwill of the parent company has been written down by the same amount as that of the consolidated financial statements.

The estimated recoverable value has shown a value of 4,120 million euros in the goodwill of the Domestic CGU, consequently allocated entirely to TIM S.p.A.

Below, therefore, is an explanation of how impairment testing of the Domestic CGU is carried out for the consolidated financial statements.

At December 31, 2020, the value configuration used to determine the recoverable amount of the Domestic CGU was the value in use. The value configuration instead used to determine the recoverable amount at December 31, 2021 is the fair value estimated on the basis of the income approach, insofar as this is considered able to best maximize the value of the Group’s activities (the “market participant perspective”), also reflecting interventions on costs in view of a potential future new, different business structure.

The estimate of fair value on the basis of the income approach was prepared in compliance with IAS 36, valuation principles and best practice, with reference to the flows of the 2022-2024 Industrial Plan, which is based on the final results of 2021: (i) it reflects realistic expectations regarding future evolutions; (ii) it brings into play careful cost cutting actions as preparation for the future business structure; (iii) it maintains the perspective of use of assets of the domestic market continuing on with the same conditions as at 12.31.2021. The expected cash flows reported in the 2022-2024 Industrial Plan approved by the Board of Directors have been critically analyzed and, with the support of expert and industrial appraisers, the average representativity has been assessed. Expected average cash flows for the 2022-2024 Industrial Plan were extrapolated for an additional two years, for which future cash flows were explicitly forecast for a period of five years (2022-2026). The extrapolation of data for 2025-2026 was necessary in order to intercept market, competition and industrial trends that will become manifest beyond the time horizon of the Industrial Plan to be captured. It is specified that where inputs are present that cannot be observed, the fair value thus determined is assigned as level 3 of the fair value hierarchy, as envisaged by IFRS 13 - Fair value measurement.

As regards the estimate of the terminal value, the sustainable long-term cash flow was assumed to be the extrapolation of the estimated cash flow at 2026, adjusted as necessary to take into consideration a suitable level of long-term capital expenditure, normalized by the effects tied to the development of innovative technology projects in place during the plan years. Furthermore, with specific reference to the incremental share of the value deriving from 5G license use and therefore from the development of new and innovative business areas, a measurement model has been adopted that takes into account the net incremental flows for a defined period of time which is based on the duration of the license. This approach is consistent with the need to include in the configuration of value, on one hand the outflows deriving from the payment of the license and the capex to support its development (as per the Industrial Plan), and on the other the positive net flows from the incremental business component of the license acquisition that will develop over a broad period of time and over the five years of explicit forecast.

The cost of capital used to discount the future cash flows in the estimates of fair value:

- was estimated using the Capital Asset Pricing Model (CAPM), which is one of the generally accepted application criteria referred to in IAS 36;
- reflects current market estimates of the time value of money and the specific risks associated with the asset groups; includes appropriate yield premiums for country risk;
- was calculated using comparative market parameters to estimate the “Beta coefficient” and the weighting coefficient of the equity and debt capital.

The following are provided below:

- the weighted average cost of capital (WACC rate) used to discount the future cash flows and the equivalent rate before tax;
- the growth rate used to estimate the residual value after the explicit forecast period (the G-Rate), expressed in nominal terms and related to the cash flows in their functional currency;
- implicit capitalization rates resulting from the difference between the cost of capital, after tax, and the G-Rate.

Principal parameters for the estimates of value in use

WACC	5.12 %
WACC before tax	6.71 %
Growth rate beyond the explicit period (g)	0.35 %
Capitalization rate after tax (WACC-g)	4.77 %
Capitalization rate before tax (WACC-g)	6.36 %
Capex/Revenues, perpetual	15.75 %

The growth rate in the terminal value “g” was estimated taking into account the expected evolution of demand for the various business areas, overseen in terms of investments and competences also by the subsidiaries Noovle and Fibercop. The growth rate thus estimated falls within the range of growth rates applied by analysts who monitor TIM shares.
The phase of capital expenditure, competitive positioning and the technological infrastructure operated was taken into account in estimating the level of investment needed to sustain the perpetual development of cash flows after the explicit forecast period.

A structural deterioration of the relevant parameters of the domestic assets and, notably, the WACC, may call for further impairment.

NOTE 4
INTANGIBLE ASSETS WITH A FINITE USEFUL LIFE

The item decreased by 222 million euros compared to December 31, 2020. The breakdown and movements are as follows:

(million euros)	12/31/2019	Mergers/ Conferral of Branches of Business	Investments	Depreciation and amortization	(Write-downs) /Reversals	Disposals	Other changes	12/31/2020
Industrial patents and intellectual property rights	**1,349**	11	482	(910)			371	**1,303**
Concessions, licenses, trademarks and similar rights	**3,379**			(379)		—		**3,000**
Other intangible assets	**1**			(1)			—	**—**
Work in progress and advance payments	**1,089**	3	477			(1)	(371)	**1,197**
Total	**5,818**	**14**	**959**	**(1,290)**	**—**	**(1)**	**—**	**5,500**

(million euros)	12/31/2020	Conferral of Noovle	Investments	Depreciation and amortization	(Write-downs) /Reversals	Disposals	Other changes	12/31/2021
Industrial patents and intellectual property rights	**1,303**	(114)	514	(732)			310	**1,281**
Concessions, licenses, trademarks and similar rights	**3,000**			(380)				**2,620**
Other intangible assets	**—**		1				1	**2**
Work in progress and advance payments	**1,197**	(67)	540			(3)	(292)	**1,375**
Total	**5,500**	**(181)**	**1,055**	**(1,112)**	**—**	**(3)**	**19**	**5,278**

The data reflects the conferral to Noovle S.p.A., effective January 1, 2021, of the TIM S.p.A. business unit comprising the assets and liabilities and employees involved in the supply of services for the Cloud and Edge Computing business and the rent of spaces, including virtual, also offered through a dedicated network of data centers. Specifically, 181 million euros of intangible assets relating to patent rights and work in progress on technological assets were conferred.

Industrial patents and intellectual property rights consisted of software, patents and television rights.
In 2021, the launch of the Digital Enterprise project demonstrated the need to verify the actual and future duration of the systems impacted. Therefore, IT applications were analyzed and it was verified that their actual lifecycle amounts to around 6 years. Thus, the amortization period was revised for both fixed and mobile IT software development assets, increasing it from 3 to 6 years. In 2021, this had an impact of around 115 million euros in lesser amortization. In 2022 and 2023 the estimated impact, calculated on the stock of assets at December 31, 2021, amounts to around 69 million euros and around 2 million euros, respectively in lesser amortization.

Regarding industrial patents and intellectual property rights, the following is specified:

- television rights for TIM multimedia platforms are amortized over the duration of the contracts;
- application and plant operation software, purchased outright and with user licenses, is amortized over an expected useful life of two, three or six years;
- patents are amortized over five years.

These decreased by 22 million euros mainly due to the impacts of the conferral to Noovle S.p.A., as well as the amortization during the year, partially offset by the entry into operation of work in progress.

Concessions, licenses, trademarks and similar rights mainly related to the unamortized cost of licenses for mobile and fixed telecommunications services. Compared to December 31, 2020, they are down by 380 million euros, mainly due to period amortization.

The amount of telephone licenses and similar rights in operation at December 31, 2021 (2,620 million euros) and their useful lives are detailed below:

Type	Residual amount at 12/31/2021 (thousands of euros)	Useful life (Years)	Maturity	Amortization expense for 2021 (thousands of euros)
UMTS	—	18	12/31/2021	134,279
UMTS 2100 MHz	—	12	12/31/2021	7,362
WiMax	1,304	15	5/31/2023	921
LTE 1800 MHz	68,568	18	12/31/2029	8,571
LTE 800 MHz	480,252	17	12/31/2029	60,032
LTE 2600 MHz	52,817	17	12/31/2029	6,602
L Band (1452-1492 MHz)	131,765	14	12/31/2029	16,471
900 and 1800 MHz band	437,987	11	12/31/2029	54,748
3600-3800 MHz band (5G)	1,419,925	19	12/31/2037	88,745
26.5-27.5 GHz band (5G)	27,806	19	12/31/2037	1,738

Work in progress and advance payments amounted to 1,375 million euros (1,197 million euros at December 31, 2020) and rise by 178 million euros. They include 680 million euros relating to the rights to frequencies in the 694-790 MHz bands that are not yet operational and work in progress mainly relating to software development and investments for the digital evolution of Network Infrastructures.
They also include 240 million euros relating to the extension through to December 31, 2029 of the expiry of the rights of use in the bandwidth of 2100 MHz, originally envisaged as December 31, 2021.

Capital expenditures for 2021 came to 1,055 million euros, up by 96 million euros compared to 2020, mainly due to the aforementioned extension of rights of use on the bandwidth of 2100 MHz. That increase was partially offset by lower investments linked to the conferral of assets to Noovle.
They include 146 million euros of internally generated assets (180 million euros in 2020), involving development and evolutionary maintenance of software programs and platforms and innovative network engineering and solution, application and service design activities.

Amortization of intangible assets amounted to 1,112 million euros and decreased by 178 million euros compared to the amount recognized in 2020 (1,290 million euros). This performance is mainly due to the specified revision of the useful life of the IT software applications. Amortization is recorded in the income statement under the components of EBIT.

The gross carrying amount, accumulated impairment losses and accumulated amortization at December 31, 2021 and December 31, 2020 can be summarized as follows:

		12/31/2020		
(million euros)	**Gross carrying amount**	**Accumulated impairment losses**	**Accumulated amortization**	**Net carrying amount**
Industrial patents and intellectual property rights	7,610	(1)	(6,306)	**1,303**
Concessions, licenses, trademarks and similar rights	6,523		(3,523)	**3,000**
Other intangible assets	56		(56)	**—**
Work in progress and advance payments	1,197			**1,197**
Total	**15,386**	**(1)**	**(9,885)**	**5,500**

(million euros)	Gross carrying amount	12/31/2021 Accumulated impairment losses	Accumulated amortization	Net carrying amount
Industrial patents and intellectual property rights	7,471	(1)	(6,189)	**1,281**
Concessions, licenses, trademarks and similar rights	6,523		(3,903)	**2,620**
Other intangible assets	57		(55)	**2**
Work in progress and advance payments	1,375			**1,375**
Total	**15,426**	**(1)**	**(10,147)**	**5,278**

With regard to the gross carrying amounts of intangible assets with a finite useful life, in 2021, disposals of 442 million euros were made, relating to intellectual property rights, almost fully amortized, which mainly concerned releases that were obsolete following the introduction of the new ERP S4HANA software system.

NOTE 5
TANGIBLE ASSETS

The item decreased by 3,112 million euros compared to December 31, 2020. The breakdown and movements are as follows:

(million euros)	12/31/2019	Mergers/Conferral of Branches of Business	Investments	Depreciation and amortization	(Write-downs)/ Reversals	Disposals	Other changes	12/31/2020
Land	**226**		9			(3)		**232**
Buildings (civil and industrial)	**565**		18	(33)		(1)	22	**571**
Plant and equipment	**8,932**	5	981	(1,623)		(4)	369	**8,660**
Manufacturing and distribution equipment	**25**		4	(11)			3	**21**
Other	**187**		56	(83)			23	**183**
Construction in progress and advance payments	**656**		400		(8)	(2)	(378)	**668**
Total	**10,591**	**5**	**1,468**	**(1,750)**	**(8)**	**(10)**	**39**	**10,335**

(million euros)	12/31/2020	Conferral of Noovle	Conferral of FiberCop	Investments	Depreciation and amortization	Impairment (losses) / reversals	Disposals	Other changes	12/31/2021
Land	**232**	(30)							**202**
Buildings (civil and industrial)	**571**	(122)		9	(28)		—	25	**455**
Plant and equipment	**8,660**	(48)	(2,414)	705	(1,338)		(19)	283	**5,829**
Manufacturing and distribution equipment	**21**			4	(9)			2	**18**
Other	**183**	(62)		60	(57)		(5)	27	**146**
Construction in progress and advance payments	**668**	(100)	(32)	389			(2)	(350)	**573**
Total	**10,335**	**(362)**	**(2,446)**	**1,167**	**(1,432)**	**—**	**(26)**	**(13)**	**7,223**

The data reflects the conferrals carried out during 2021 and, specifically:

- conferral to Noovle S.p.A., effective January 1, 2021, of the TIM S.p.A. business unit comprising the assets and liabilities and employees involved in the supply of services for the Cloud and Edge Computing business and the rent of spaces, including virtual, also offered through a dedicated network of data centers. 362 million euros in tangible assets was conferred, relating to land, buildings (civil and industrial), technological systems and work in progress;
- conferral to FiberCop S.p.A., starting March 31, 2021, of the TIM S.p.A. business unit comprising the goods, assets and liabilities and legal relations organized functionally for the supply of passive fiber or copper access services, used by TIM, and at the service of other authorized operators (OAOs), by means of the secondary network (the "last mile"). 2,446 million euros in tangible assets was conferred, relating to copper network, optical fiber and aerial pole technological systems and work in progress.

Moreover, on June 30, 2021, the purchase of the BT Italia Business Unit took effect, offering services to public administration customers and small and medium businesses/enterprises (SMB/SME). The purchase also includes support for customers of the SMB Business Unit, supplied by Atlanet, the BT Contact Center of Palermo. As a result of this operation, TIM acquired 7 million euros in other tangible assets relating to equipment provided to personnel.

Land includes both built-up land (with buildings or light constructions) and other available land (on which various building works stand that are not recorded in the land registry, such as pylons, building podia, etc.). It should be noted that land, including land pertaining to buildings, is not depreciated. This decreased by 30 million euros compared to December 31, 2020, following the conferral to Noovle S.p.A..

The item **Buildings (civil and industrial)** includes buildings for industrial use hosting telephone exchanges or offices and light constructions (small prefabricated buildings and stacked containers). The item decreased by 116 million euros compared to December 31, 2020, following the conferral to Noovle S.p.A..

The item **Plant and machinery** represents the technical infrastructure used for the provision of telecommunications services (transport and distribution of voice/data traffic). In detail it consists of switching and power supply systems, copper and fiber optic backbones, transmission equipment for fixed and mobile networks and traffic termination telephone systems used by the various customer segments. This item decreased by 2,831 million euros compared to December 31, 2020, mainly as a result of the impacts of the conferral to FiberCop S.p.A. (2,414 million euros), partially offset by the capital expenditure and exercisability mainly relating to the underground and aerial copper network (89 million euros), access and carrier network in fiber optics (148 million euros), LTE / UMTS core + access (75 million euros), transmission equipment including SDH-Wdm (87 million euros), data network and switching (26 million euros), NGAN equipment (34 million euros), power supply systems (20 million euros) and fixed and mobile commercial products for customer rental contracts (174 million euros).

Manufacturing and distribution equipment consists of instruments and equipment used for the operation and maintenance of plant and equipment.

The item **Other** mainly consists of hardware for the functioning of the data centers and for work stations, furniture and fixtures and, to a minimal extent, transport vehicles and office machines. It decreased by 37 million euros compared to December 31, 2020, mainly as a result of the impacts of the conferral to Noovle S.p.A. (62 million euros). Other changes included 7 million euros pertaining to the aforementioned purchase of the BT Italia business units.

Construction in progress and advance payments decreased by 95 million euros compared to December 31, 2020, mainly due to the impacts of the conferral to Noovle S.p.A. (100 million euros) and to FiberCop S.p.A. (32 million euros). These include the internal and external costs incurred for the acquisition and internal production of tangible assets, which are not yet in use. Other changes included the entry intro operation of capitalizations from previous years.

Disposals amounted to 26 million euros and mainly related to the sale of Dark Fiber for network infrastructures (installation, transmission and access), disposals with the recovery of rebate credit notes, disposals of UMTS devices and the abandonment of sites for Base Transceiver Stations.

Capital expenditures for 2021 came to 1,167 million euros, down by 301 million euros compared to 2020. These consist of switching and power supply systems, copper and fiber optic backbones, transmission equipment for fixed and mobile networks and traffic termination telephone systems used by the various customer segments. They include 141 million euros of internally generated assets (201 million euros in 2020), involving the design, construction and testing of network infrastructure and access and transmission networks.

Depreciation of tangible assets totaled 1,432 million euros, a decrease of 318 million euros compared to 2020. In 2021, the acceleration of depreciation has been recorded, as a consequence of both the switch-off of 3G, expected for June 2022 (equal to approximately 23 million euros) and the switch-off of part of the copper access network, hypothesized for end 2030 (equal to 16 million euros).

Depreciation is calculated using the straight-line method over the remaining useful lives of the assets in accordance with the depreciation plan reviewed annually to take account of useful lives by single class of fixed asset. The effects of any changes in the useful life are recognized in the separate income statement prospectively.
Depreciation for the year 2021 is calculated on a straight-line basis over the estimated useful lives of the assets according to the following minimum and maximum rates:

Buildings (civil and industrial)	3% – 5.55%
Plant and equipment	3% - 50%
Manufacturing and distribution equipment	20%
Other	11% - 33%

The gross carrying amount, accumulated impairment losses and accumulated depreciation at December 31, 2021 and December 31, 2020 can be summarized as follows:

		12/31/2020		
(million euros)	Gross carrying amount	Accumulated impairment losses	Accumulated depreciation	Net carrying amount
Land	232			**232**
Buildings (civil and industrial)	1,822		(1,251)	**571**
Plant and equipment	63,163	(13)	(54,490)	**8,660**
Manufacturing and distribution equipment	291		(270)	**21**
Other	2,217	(3)	(2,031)	**183**
Construction in progress and advance payments	676	(8)		**668**
Total	**68,401**	**(24)**	**(58,042)**	**10,335**

		12/31/2021		
(million euros)	Gross carrying amount	Accumulated impairment losses	Accumulated depreciation	Net carrying amount
Land	202			**202**
Buildings (civil and industrial)	1,666		(1,211)	**455**
Plant and equipment	49,318	(9)	(43,480)	**5,829**
Manufacturing and distribution equipment	295		(277)	**18**
Other	1,307	(3)	(1,158)	**146**
Construction in progress and advance payments	575	(2)		**573**
Total	**53,363**	**(14)**	**(46,126)**	7,223

With regard to the gross carrying amounts of non-current tangible assets, in 2021 disposals were made for a total value of 535 million euros, mainly in relation to fully depreciated assets, including: access network (155 million euros), switching systems (148 million euros), underground fiber optics (57 million euros), UMTS and network transmission systems and equipment (71 million euros), rented terminals (31 million euros), power supply and conditioning systems (6 million euros), HW data centers (5 million euros), civil buildings (3 million euros) and furniture, furnishings and office machines (42 million euros).

NOTE 6
RIGHTS OF USE ASSETS

The item decreased by 776 million euros compared to December 31, 2020. The breakdown and movements are as follows:

(million euros)	12/31/2019	Mergers/Conferral of Branches of Business	Investments	Increases in lease contracts	Depreciation and amortization	(Write-downs) /Reversals	Disposals	Other changes	12/31/2020
Property	**3,769**		12	687	(402)		(880)	(597)	**2,589**
Plant and equipment	**979**	6	9	191	(111)		(241)	525	**1,358**
Equipment	**—**								**—**
Other	**117**			11	(29)		(4)	(2)	**93**
Assets in progress and advance payments	**41**		37					(22)	**56**
Total	**4,906**	**6**	**58**	**889**	**(542)**	**—**	**(1,125)**	**(96)**	**4,096**

(million euros)	12/31/2020	Conferral of Noovle	Conferral of FiberCop	Investments	Increases in lease contracts	Depreciation and amortization	(Write-downs) /Reversals	Disposals	Other changes	12/31/2021
Rights of use on intangible assets										
Rights of use Concessions, Licenses, Trademarks and Similar Rights	—	—			4	(1)				3
Work in progress and advance payments	—									—
	—	—	—	—	4	(1)	—	—	—	3
Rights of use on tangible assets										
Property	**2,589**	(90)		34	186	(288)		(14)	30	**2,447**
Plant and equipment	**1,358**		27	19	50	(136)		(542)	(18)	**758**
Other	**93**				13	(27)		(2)		**77**
Construction in progress and advance payments	**56**	(1)		19					(39)	**35**
	4,096	**(91)**	**27**	**72**	**249**	**(451)**	**—**	**(558)**	**(27)**	**3,317**
Total	**4,096**	**(91)**	**27**	**72**	**253**	**(452)**	**—**	**(558)**	**(27)**	**3,320**

The data reflects the conferrals carried out during 2021 and, specifically:

- conferral to Noovle S.p.A., effective January 1, 2021, of the TIM S.p.A. business unit comprising the assets and liabilities and employees involved in the supply of services for the Cloud and Edge Computing business and the rent of spaces, including virtual, also offered through a dedicated network of data centers. 91 million euros in rights of use was conferred, relating to contracts for real estate leases payable;
- conferral to FiberCop S.p.A., starting March 31, 2021, of the TIM S.p.A. business unit comprising the goods, assets and liabilities and legal relations organized functionally for the supply of passive fiber or copper access services, used by TIM, and at the service of other authorized operators (OAOs), by means of the secondary network (the “last mile”). 130 million euros in agreements for the purchase of network infrastructure were conferred, and following the conferral, 157 million euros of higher rights of use were recognized for the start, from the date of conferral, of TIM IRUs payable on portions of the secondary network conferred to FiberCo, serving the TIM network.

The **rights of use on intangible assets** amounted to 3 million euros and include the recording as an IFRS 16 lease, starting 2021, of an agreement that can be qualified as “Software as a Service - SaaS”, in exchange for which TIM has acquired the right to make exclusive use of software licenses residing on partitions of third party hardware platforms dedicated exclusively to the Company.

The rights of use on tangible assets amounted to 3,317 million euros and decreased compared to December 31, 2020 by 779 million euros. In particular:

- the item Property includes buildings and land under lease contracts and the related building adaptations. This decreased by 142 million euros, mainly due to the aforementioned conferral to Noovle S.p.A.;
- the item Plant and equipment mainly includes rights of use on infrastructures for telecommunications services. This decreased by 600 million euros, mainly due to the derecognition of the rights of use (538 million euros) connected with the previous Pay per Use contract entered into with Flash Fiber, as a result of the start of the new Master Service Agreement (MSA) entered into by TIM S.p.A. and FiberCop S.p.A., due to the conferral and merger of FiberCop with Flash Fiber;
- the item Other mainly comprises the finance leases on autovehicles.

Investments consist of the acquisition of IRU transmission capacity (27 million euros) and incremental and improvement expenses incurred for leased property and non-property assets (45 million euros).

Increases in lease contracts include the higher value of the rights of use recorded as a result of new leases, increases of lease payments and renegotiations of agreements existing for both land and buildings for office use and industrial relationship over time, to infrastructure sites for the mobile telephone network infrastructure and network.
In accordance with IFRS 16 (Leases), lease liabilities are presented through the recognition of a financial liability in the statement of financial position at the present value of future lease payments, against the recognition of a rights-of-use asset of the leased asset.
The item includes the recognition of the rights of use for the SaaS agreement and for new property lease contracts with Noovle S.p.A. for the use of two data centers starting in January 2021.

The item **Disposals** represents the book value of the assets from property lease contracts (and related improvements) issued in advance, net of the value of the residual financial debt. The item includes 538 million euros associated with the specified derecognition of the rights of use connected with the previous Pay per Use agreement entered into with Flash Fiber.

The item **Other changes** includes the transfers during the year and the changes related to the lower value of rights of use recorded as a result of contractual changes during the year, mainly for lease liabilities under IFRS16.

Depreciation and **impairment losses** have been recorded in the income statement as components of EBIT.

The gross carrying amount, accumulated impairment losses and accumulated depreciation at December 31, 2021 and December 31, 2020 can be summarized as follows:

		12/31/2020		
(million euros)	**Gross carrying amount**	**Accumulated impairment losses**	**Accumulated depreciation**	**Net carrying amount**
Property	4,652	(13)	(2,050)	**2,589**
Plant and equipment	1,672		(314)	**1,358**
Equipment				**—**
Other	220		(127)	**93**
Assets in progress and advance payments	56			**56**
Total	**6,600**	**(13)**	**(2,491)**	**4,096**

		12/31/2021		
(million euros)	**Gross carrying amount**	**Accumulated impairment losses**	**Accumulated depreciation**	**Net carrying amount**
Rights of use on intangible assets				
Rights of use Concessions, Licenses, Trademarks and Similar Rights	4		(1)	3
Work in progress and advance payments				—
	4	—	(1)	3
Rights of use on tangible assets				
Property	4,766	(13)	(2,306)	**2,447**
Plant and equipment	1,096		(338)	**758**
Equipment				—
Other	224		(147)	**77**
Assets in progress and advance payments	35			**35**
	6,121	**(13)**	**(2,791)**	**3,317**
Total	**6,125**	**(13)**	**(2,792)**	3,320

With regard to the gross carrying amounts of rights of use of third party assets, in 2021 disposals were made for a total value of 650 million euros. The assets most affected were: rights of use over IRU fiber (607 million euros), improvements in third party establishments (2 million euros), rented properties (25 million euros), base transceiver stations (7 million euros) and leased cars (9 million euros).

NOTE 7
INVESTMENTS

These increased 3,809 million euros compared to December 31, 2020 and included:

(million euros)	12/31/2021	*of which Financial Instruments*	12/31/2020	*of which Financial Instruments*
Subsidiaries	10,990		7,209	
Associates and joint ventures	29	—	6	—
Other investments	35	*35*	30	*30*
Total	**11,054**	***35***	**7,245**	***30***

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

As permitted by IFRS 9, TIM S.p.A. now measures all Other Investments at fair value through other comprehensive income (FVTOCI).

In 2021 the main transactions with subsidiaries, associates, joint ventures and other equity investments of TIM S.p.A. were the following:

- Noovle S.p.A.: starting January 1, 2021, the conferral is effective to Noovle S.p.A. of the TIM S.p.A. business unit comprising the assets and liabilities and employees involved in the supply of services for the Cloud and Edge Computing business and the rent of spaces, including virtual, also offered through a dedicated network of data centers;
- FiberCop S.p.A.: starting March 31, 2021, the conferral is effective to FiberCop S.p.A. of the TIM S.p.A. business unit comprising the goods, assets and liabilities and legal relations organized functionally for the supply of passive fiber or copper access services, used by TIM, and at the service of other authorized operators (OAOs), by means of the secondary network (the “last mile”). At the same time, the purchase was completed by Teemo Bidco, an indirect subsidiary of KKR Global Infrastructure Investors III L.P., of 37.5% of FiberCop from TIM and Fastweb has subscribed FiberCop shares corresponding to 4.5% of the company’s capital, through the conferral of the stake held in Flash Fiber, which was simultaneously incorporated into FiberCop;
- on June 30, 2021, the purchase of the BT Italia Business Unit was completed, offering services to public administration customers and small and medium business/enterprise (SMB/SME) customers. The purchase also includes support for customers of the SMB Business Unit, supplied by Atlanet, the BT Contact Center of Palermo;
- TIM Tank S.r.l.: on April 1, 2021, it was merged into Telecom Italia Ventures S.r.l. with accounting and tax effects backdated to January 1, 2021;
- Telecom Italia Trust Technologies S.r.l.: starting April 1, 2021, the investment in the company was conferred by TIM S.p.A. to Olivetti S.p.A.;
- TIM Servizi Digitali S.p.A.: company established on July 30, 2021; the company’s corporate purpose is the development and maintenance of plants for the supply of telecommunications services; in September 2021, the company stipulated a rental contract with Sittel S.p.A. for a business unit consisting of the “construction”, “delivery” and “assurance” of telecommunications networks and plants;
- Olivetti Payments Solutions S.p.A.: company established on 1 December 2021; the company’s corporate object is the management of equity investments, study and research activities, commercial, industrial, financial movable and real estate activities.

Movements during 2021 for each investment and the corresponding amounts at the beginning and end of the year are reported below. The list of investments in subsidiaries, associates and joint ventures at December 31, 2021 is presented in compliance with Article 2427 of the Italian Civil Code and reported in the Note "List of investments in subsidiaries, associates and joint ventures".

Investments

(thousands of euros)	**Carrying amount at 12/31/2020**	Mergers/ demergers spin-offs of business units	Acquisitions/ Subscriptions/ Payments to cover Losses	Disposals/ Reimbursements	Impairment losses/Reversals /Adj. Fair value	Other changes and reclassifications (*)	Total changes	**Carrying amount at 12/31/2021**
Investments in subsidiaries								
CD FIBER S.r.l.	43						—	43
FLASH FIBER S.r.l.	250,435	(250,444)				9	(250,435)	—
FIBERCOP S.p.A.	50	4,643,000	63,061	(1,741,125)		325	2,965,261	2,965,311
DAPHNE 3 S.p.A.	340,161			(43,847)			(43,847)	296,314
OLIVETTI S.p.A.	10,829	15,134	10,000			103	25,237	36,066
NOOVLE S.p.A. SOCIETA' BENEFIT	50	1,079,000				522	1,079,522	1,079,572
NOOVLE S.r.l.	12,743	(12,743)					(12,743)	—
TELECOM ITALIA CAPITAL S.A.	2,388						—	2,388
TELECOM ITALIA FINANCE S.A.	5,914,971						—	5,914,971
TELECOM ITALIA LATAM PARTICIPAÇÕES E GESTÃO ADMINISTRATIVA	—						—	—
TELECOM ITALIA SAN MARINO S.p.A.	7,565						—	7,565
TELECOM ITALIA SPARKLE S.p.A.	586,886					633	633	587,519
TELECOM ITALIA TRUST TECHNOLOGY	8,506	(15,134)			6,621	7	(8,506)	—
TELECOM ITALIA VENTURES S.r.l.	1,846	24,840	33,027		(7,078)		50,789	52,635
TELECONTACT CENTER S.p.A.	12,544					67	67	12,611
TELENERGIA S.r.l.	50						—	50
TELSY S.p.A.	19,519					3	3	19,522
TI AUDIT COMPLIANCE LATAM (in liquidation) S.A.	181						—	181
TIM BRASIL SERVIÇOS E PARTICIPAÇÕES S.A.	—						—	—
TIM RETAIL S.r.l.	15,116					27	27	15,143
TIM MY BROKER S.r.l.	10						—	10
TIM SERVIZI DIGITALI S.p.A.			50		(50)		—	—
TIM TANK S.r.l.	24,839	(24,839)					(24,839)	—
	7,208,732	**5,458,814**	**106,138**	**(1,784,972)**	**(507)**	**1,696**	**3,781,169**	**10,989,901**

(*) The column "Other changes and reclassifications" includes 715 thousand euros of the fair value of the charges relating to the allocation of compensation plans to employees of Companies of the Telecom Group, under the 2020 Broad-Based Share Ownership Plan.

(thousands of euros)	**Carrying amount at 12/31/2020**	Mergers/ demergers spin-offs of business units	Acquisitions/ Subscriptions/ Payments to cover Losses	Disposals/ Reimbursements	Impairment losses/Reversals /Adj. Fair value	Other changes and reclassifications	Total changes	**Carrying amount at 12/31/2021**
Investments in associates and joint ventures								
AREE URBANE (in liquidation)	—						—	—
ASSCOM INSURANCE BROKERS	—						—	—
INFRASTRUTTURE WIRELESS ITALIANE	—						—	—
NORDCOM	2,143						—	2,143
TIGLIO I	1,189			(1,189)			(1,189)	—
TIGLIO II (in liquidation)	88			(88)			(88)	—
TIMFin	2,940		24,010				24,010	26,950
Consorzio EO (in liquidation)	—						—	—
	6,360	**—**	**24,010**	**(1,277)**	**—**	**—**	**22,733**	**29,093**

(thousands of euros)	**Carrying amount at 12/31/2020**	Mergers/ demergers spin-offs of business units	Acquisitions/ Subscriptions/ Payments to cover Losses	Disposals/ Reimbursements	Impairment losses/Reversals /Adj. Fair value	Other changes and reclassifications	Total changes	**Carrying amount at 12/31/2021**
Investments in other companies								
BANCA UBAE	2,573				(538)		(538)	2,035
FIN. PRIV.(**)	15,981				6,465		6,465	22,446
IST. ENCICLOPEDIA ITALIANA G. TRECCANI	4,495				(295)		(295)	4,200
ISTITUTO EUROPEO DI ONCOLOGIA	2,728				15		15	2,743
Other minor investments	3,723	—	305	(347)	(168)	1	(209)	3,514
	29,500	**—**	**305**	**(347)**	**5,479**	**1**	**5,438**	**34,938**
Total Investments	**7,244,592**	**5,458,814**	**130,453**	**(1,786,596)**	**4,972**	**1,697**	**3,809,340**	**11,053,932**

(**) Recognized investment measured at fair value through other comprehensive income (FVTOCI).

NOTE 8
NON-CURRENT AND CURRENT FINANCIAL ASSETS

Non-current and current financial assets were broken down as follows:

(million euros)		12/31/2021	12/31/2020
Non-current financial assets			
Financial receivables and other non-current financial assets			
Financial receivables from subsidiaries		2,520	500
Financial receivables from associates and joint ventures		—	—
Financial receivables from other related parties		—	—
Receivables from employees		36	38
Hedging derivatives relating to hedged items classified as non-current assets/liabilities of a financial nature		366	500
Non-hedging derivatives		1,305	1,239
Other financial receivables		211	213
		4,438	**2,490**
Financial receivables for lease contracts		**11**	**17**
Total non-current financial assets	**(a)**	**4,449**	**2,507**
Securities other than investments, other financial receivables and other current financial assets			
Securities other than investments			
Measured at amortized cost (AC)		—	—
Measured at fair value through other comprehensive income (FVTOCI)		—	—
Measured at fair value through profit or loss (FVTPL)		—	—
		—	—
Financial receivables and other current financial assets			
Liquid assets with banks, financial institutions and post offices (with maturity over 3 months)		—	—
Receivables from employees		11	12
Hedging derivatives relating to hedged items classified as current assets/liabilities of a financial nature		25	46
Non-hedging derivatives		68	49
Financial receivables from parent companies		—	—
Financial receivables from subsidiaries		5	1
Financial receivables from associates and joint ventures			—
Other short-term financial receivables		7	2
		116	**110**
	(b)	**116**	**110**
Financial receivables for lease contracts	**(c)**	**39**	**44**
Cash and cash equivalents	**(d)**	**3,558**	**1,766**
Total current financial assets	**e=(b+c+d)**	**3,713**	**1,920**
Total non-current and current financial assets	**(f)=(a+e)**	**8,162**	**4,427**

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

Financial receivables for lease contracts (current and non-current) amounted to 50 million euros (61 million euros at December 31, 2020) and included the following contractual relationships recognized in accordance with the financial method envisaged by IFRS 16:

- commercial offers for Consumer and Business customers involving the rental of ADSL routers (2 million euros, 7 million euros at December 31, 2020);
- agreements for the sale of network infrastructure in IRU with deferred collection over time (33 million euros, 32 million euros at December 31, 2020) recognized using the financial method envisaged by IFRS 16 given the contractual term substantially close to the economic life of the asset;
- contracts for the lease of commercial products to customers, for an amount of 15 million euros (21 million euros at December 31, 2020). The financial receivables for lease assets are offset by the financial debt for the corresponding leases payable.

At December 31, 2020, financial receivables for active lease contracts also included 1 million euros for contracts for the rental of products to TIM customers with ancillary services ("full rent formula") and leasing contracts entered into in prior years by Teleleasing with TIM customers.

Receivables from employees (current and non-current) amounted to 47 million euros (50 million euros at December 31, 2020) and included the remaining amount due on loans granted.

Hedging derivatives amounting to 391 million euros (546 million euros at December 31, 2020), consisted of:

- hedged items classified as non-current assets/liabilities of a financial nature (366 million euros), mainly pertaining to the mark-to-market spot valuation component of cash flow hedge derivative contracts (of which 150 million euros entered into with Telecom Italia Finance S.A.) and fair value hedge derivative contracts;
- hedged items classified as current assets/liabilities of a financial nature (25 million euros), relating to the accrued income component of cash flow hedges and fair value hedges.

Non-hedging derivatives amounted to 1,373 million euros (1,288 million euros at December 31, 2020) and included the asset value of transactions that TIM S.p.A. carries out on behalf of Group companies under centralized treasury arrangements. This item is offset by the corresponding item classified in financial liabilities. There are also IRS derivatives of 18 million euros belonging to fair value hedges of bond loans in euros, discontinued starting from June 2021 due to the failure of the prospective efficiency tests carried out at December 31, 2021.

The non-hedging derivatives consisted of:

- items classified under Non-current financial assets (1,305 million euros), which refer to the mark-to-market spot valuation component of the non-hedging derivatives;
- items classified as current financial assets (68 million euros), relating to the accrued income component on non-hedging derivative contracts.

Further details are provided in the Note "Derivatives".

Other financial receivables refer 205 million euros to the loan that TIM S.p.A. is owed by Ardian (through the financial vector Impulse I) following the transaction by means of which TIM S.p.A. conferred 30.2% of INWIT's shares to Daphne 3.

Cash and cash equivalents increased by 1,792 million euros compared to December 31, 2020 and were broken down as follows:

(million euros)	12/31/2021	12/31/2020
Liquid assets with banks, financial institutions and post offices	3,532	1,673
Checks, cash and other receivables and deposits for cash flexibility	—	—
Receivables from subsidiaries	26	93
Total	**3,558**	**1,766**

The different technical forms of investing available cash can be analyzed as follows:

- maturities: investments have a maximum maturity of three months;
- counterparty risk: investments are made with leading banking and financial institutions with high credit quality and with a rating of at least BBB- according to Standard & Poor's or similar rating agencies;
- Country risk: deposits have been made mainly in major European financial markets.

NOTE 9

MISCELLANEOUS RECEIVABLES AND OTHER NON-CURRENT ASSETS

Miscellaneous receivables and other non-current assets breaks down as follows:

(million euros)		12/31/2021	*of which Financial Instruments*	12/31/2020	*of which Financial Instruments*
Miscellaneous receivables (non-current)					
Miscellaneous receivables from subsidiaries		104	—	3	—
Miscellaneous receivables from associates		—	—	—	—
Receivables due from others		53	*21*	46	*16*
	(a)	**157**	***21***	**49**	***16***
Other non-current assets					
Deferred contract costs		1,787	—	1,643	
Other cost deferrals		30	—	41	
	(b)	**1,817**	**—**	**1,684**	**—**
Total	**(a+b)**	**1,974**	***21***	**1,733**	***16***

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

Miscellaneous receivables (non-current)

The item includes receivables due from subsidiaries for 104 million euros (3 million euros at December 31, 2020) relative to tax consolidation receivables; it also includes receivables for 31 million euros due from the tax authority for income tax (31 million at December 31, 2020).

Other non-current assets

This item increased by 133 million euros compared to December 31, 2020 and includes:

- **Contract costs deferred** for 1,787 million euros (1,643 million euros at December 31, 2020), mainly related to the deferral of costs connected to the activation and acquisitions of new contracts with customers. Contract costs (mainly technical activation costs and costs for sales network commissions) are deferred and recognized through separate profit or loss depending on the expected term of the contractual relationship with the customers. In 2021, the expected duration of the contractual relationship with customers went from 3 to 4 years for the mobile business and from 7 to 8 years for the fixed-line business, following an improvement to the churn on customers recorded in recent years, as a result of the loyalty and retention actions and the drive on converging offers. The positive impact at December 31, 2021 totaled 180 million euros. Based on the amounts at December 31, 2021, positive impacts on 2022 and 2023 are estimated at 103 million euros and 52 million euros, respectively.

  Total deferred non-current and current contract costs amounted to 2,358 million euros (2,301 million euros at December 31, 2020); the breakdown of the total deferred non-current and current contract costs at December 31, 2021 is provided below, as well as the related changes in the period:

(million euros)	12/31/2021	12/31/2020
Deferred contract costs		
Non-current deferred contract costs	1,787	1,643
Current deferred contract costs	571	658
Total	**2,358**	**2,301**

(million euros)	12/31/2020	Increase	Release to income statement	Other changes	12/31/2021
Contract acquisition costs	**1,294**	408	(289)	1	1,414
Contract execution costs	**1,007**	138	(201)		944
Total deferred contract costs	**2,301**	**546**	**(490)**	**1**	**2,358**

Total deferred contract costs will be recognized in the income statement of future years of the Company and in particular, for approximately 571 million euros, in 2022, based on the amount at December 31, 2021 without taking into account the new deferred portions. More specifically:

(million euros)	12/31/2021	year of recognition in the income statement					
		2022	2023	2024	2025	2026	after 2026
Deferred contract costs							
Contract acquisition costs	1,414	354	312	253	184	129	182
Contract execution costs	944	217	204	179	143	98	103
Total	**2,358**	**571**	**516**	**432**	**327**	**227**	**285**

- **Other deferred costs** of 30 million euros (41 million euros at December 31, 2020) mainly refer to costs for leased assets.

NOTE 10

INCOME TAX EXPENSE (CURRENT AND DEFERRED)

Current income tax receivables

Non-current income tax receivables (classified as Miscellaneous receivables and other non-current assets) amounted to 31 million euros at December 31, 2021 (31 million euros at December 31, 2020); they relate to non-assigned receivables for taxes and interest resulting from the recognized deductibility from IRES tax of the IRAP tax calculated on labor costs, relating to years prior to 2012, following the entry into force of Italian Decree Law 16/2012.

Current tax receivables amounted to 43 million euros, up 4 million euros compared to December 31, 2020 (39 million euros), and mainly include the IRES tax receivable for surplus payments and withholdings of 5 million euros and the IRAP receivable of TIM for 29 million euros for surplus down payments made and for the benefit deriving from the presentation of supplementary declarations following the ruling signed on August 3, 2020 with the Revenue Agency for the application of the patent box benefit.

Tax assets and deferred tax liabilities

The net balance is composed as follows:

(million euros)	12/31/2021	12/31/2020
Deferred tax assets	3,364	7,337
Deferred tax liabilities	—	—
Total	**3,364**	**7,337**

In the 2020 Financial Statements, TIM S.p.A. had benefited from the possibility of realigning the tax values to the greater value of the assets booked, specifically the value of goodwill of 23,051 million euros, as envisaged by Decree Law 104/2020, Art. 110, subsections 8 and 8 bis. Accordingly, this resulted, in exchange for payment of substitute tax in the amount of 3% of the realigned value (692 million euros), in the possibility to deduct the tax amortization of the realigned value of 23,051 million euros over 18 years, starting 2021. These deductions, which would have generated benefits in terms of IRES and IRAP, have been fully noted at December 31, 2020 amongst deferred tax assets in the amount of 6,569 million euros, in view of the possibility of absorption through the Company's future taxable income, also taking into account the fact that IRES losses can be carried forward without time limits, where such may arise due to temporary incapacity of taxable income.

The 2022 Budget Law (Law 234/2021, art. 160) amended the duration of the period during which amortization of tax-recognized goodwill could be deducted, taking it to 50 years and this resulted in the writing off of 50% of deferred tax assets for 3,285 million euros (of which 2,766 million euros for IRES and 519 million euros for IRAP), which go beyond the time frame of visibility for absorption, which had been identified as 25 years in the 2020 financial statements. The remaining deferred IRAP tax assets for 540 million euros were also written-off, mainly relating to the realigned goodwill in consideration of the changed assessment of the time frame for recoverability of deferred tax assets of TIM S.p.A., also determined on the basis of the 2022 - 2024 Industrial Plan. For the same reason, no new deferred tax assets are entered for period tax losses. This write-off does not exclude for the future, the possibility of reversing this impairment with the booking of all or part of the deferred tax assets where they should be deemed recoverable.

In 2021, in accordance with art. 19 of Decree Law no. 73/2021, TIM S.p.A. also transformed the deferred tax assets for tax losses carried forward and ACE surpluses (within the limit of 20% of the impaired loans transferred) into tax credits in the amount of approximately 20 million euros; these receivables were subsequently offset against VAT payable.

The presentation of deferred tax assets and liabilities in the financial statements takes account of offsets to the extent that such offsets are legally permitted. The composition of the gross amounts prior to offsetting is presented below:

(million euros)	12/31/2021	12/31/2020
Deferred tax assets	3,445	7,381
Deferred tax liabilities	(81)	(44)
Total	**3,364**	**7,337**

The temporary differences which made up this line item at December 31, 2020 and 2019, as well as the movements during 2020 were as follows:

(million euros)	12/31/2020	Recognized in profit or loss	Recognized in equity	Other changes	12/31/2021
Deferred tax assets:					
Provisions for pension fund integration Law 58/92	4				4
Provisions	167	73			240
Provision for bad debts	90	(3)			87
Financial instruments	383		(84)		299
Taxed depreciation and amortization	92	4		(6)	90
Discounting of provision for employee severance indemnities	25		3		28
Tax losses (*)	18	—		(11)	7
Tax realignment pursuant to Decree Law 104/2020 Art. 110	6,569	(3,914)			2,655
Other deferred tax assets	33	11		(9)	35
Total	**7,381**	**(3,829)**	**(81)**	**(26)**	**3,445**
Deferred tax liabilities:					
Accelerated depreciation and amortization	(4)	1			(3)
Convertible Bonds	—		(45)		(45)
Financial instruments	(3)		1		(2)
Bond issue expense	(5)	2			(3)
Other deferred tax liabilities	(32)	4			(28)
Total	**(44)**	**7**	**(44)**	**—**	**(81)**
Total Deferred tax assets net of Deferred tax liabilities	**7,337**	**(3,822)**	**(125)**	**(26)**	**3,364**

(*) For the new flow of tax losses in 2021, no deferred tax assets are entered

The expirations of deferred tax assets and deferred tax liabilities at December 31, 2021 were the following:

(million euros)	Within next year	Beyond 1 year year	Total as at 12/31/2021
Deferred tax assets	339	3,106	3,445
Deferred tax liabilities	(51)	(30)	(81)
Total Deferred tax assets net of Deferred tax liabilities	**288**	**3,076**	**3,364**

Current income tax payables

Current tax payables come to 231 million euros at December 31, 2021 (231 million euros at December 31, 2020) and relate to the second installment of substitute tax pursuant to Decree Law 104/2020, Art. 110, paragraphs 8 and 8 bis; **non-current tax payables** come to 231 million euros at December 31, 2021 (463 million euros at December 31, 2020) and relate to the third installment of substitute tax pursuant to Decree Law 104/2020, Art. 110, paragraphs 8 and 8 bis.

Income tax expense

The **income tax expense** for the years ended December 31, 2021 and 2020 is detailed below:

(million euros)	2021	2020
IRAP taxes for current year	—	62
IRES taxes for current year	—	—
Substitute tax pursuant to Decree Law 104/2020 art. 110	—	692
Expenses/(income) from tax consolidation	(100)	—
Current taxes of prior years	(4)	(316)
Total current taxes	**(104)**	**438**
Deferred income taxes	3	168
Tax realignment pursuant to Decree Law 104/2020 Art. 110 and write-off of other deferred tax assets	3,825	(6,569)
Deferred taxes of prior years	(6)	(32)
Total deferred taxes	**3,822**	**(6,433)**
Total income tax expense for the year	**3,718**	**(5,995)**

The current IRES tax rate is 24%, while the effective IRAP tax rate is 4.5%.
The current tax income is represented by 100 million euros in tax consolidation benefit, plus the impact of 4 million euros for lesser tax in previous years, relative to the effects of the income tax return as compared with the estimate prepared in the 2020 financial statements on the basis of the information available at the time.
The current tax benefits juxtaposes with the tax write-off for 3,825 million euros, of which 2,766 million euros for IRES, equal to 50% of the deferred tax assets entered in 2020 following the tax recognition of higher values booked in accordance with Decree Law 104/2020, Art. 110, subsections 8 and 8 bis and 1,059 million euros for the residual amount of deferred IRAP tax assets entered for the realignment of goodwill and other items.
As already specified, the write-off of deferred tax assets is due to the extension to 50 years of the period of resorption of the realigned amount of goodwill introduced by Art. 160 of the 2022 Budget Law (Law 234/2021) and the changed assessment of the time frame for recovery of deferred tax assets of TIM S.p.A.

The reconciliation between the theoretical tax charge, calculated on the basis of the IRES tax rate in effect at December 31, 2021 (24%), and the effective tax charge in the separate financial statements is as follows:

(million euros)	2021	2020
Result before taxes		
From continuing operations	(4,596)	1,166
Total profit (loss) before tax	**(4,596)**	**1,166**
Theoretical income tax	**(1,103)**	**280**
Income tax effect on increases (decreases) in variations:		
dividends recognized in income	(194)	(75)
Impairment losses, gains and losses on investments	24	(12)
non-deductible depreciation, amortization and impairments	991	3
non-deductible costs	6	3
other items (accelerated depreciation and amortization, economic growth aid (ACE), etc.)	(15)	(51)
Previous years' IRES (patent box, etc.)	(8)	(299)
Prepaid IRES tax benefit/write-off pursuant to Decree Law 104/2020, Art. 110 and others	2,961	(5,532)
Effective income tax recognized in income statement, excluding IRAP and substitute tax	**2,662**	**(5,683)**
IRAP (including patent box benefit)	(3)	33
Prepaid IRAP tax benefit/write-off pursuant to Decree Law 104/2020, Art. 110 and others	1,059	(1,037)
Substitute tax pursuant to Decree Law 104/2020 art. 110	—	692
Total of actual taxes to income statement	**3,718**	**(5,995)**

For a better understanding of the above reconciliation, the impacts of Regional Income Tax (IRAP) and substitute tax pursuant to Law Decree 104/2020, Art. 110, have been shown separately so as to avoid any distorting effect arising from the fact that these taxes are calculated on a different tax base to the pre-tax profit.

NOTE 11

INVENTORIES

At December 31, 2021, these amounted to 165 million euros (144 million euros at December 31, 2020) and mainly consisted of fixed and mobile telecommunications equipment and terminals and the related accessories.
This item increased by 21 million euros compared with December 31, 2020, and was mainly attributable to a purchasing trend during the year that was higher than that of consumption, on the Fixed segment.
In 2021, write-downs of inventories amounted to around 5 million euros.
No inventories are pledged as collateral.

NOTE 12

TRADE AND MISCELLANEOUS RECEIVABLES AND OTHER CURRENT ASSETS

Trade and miscellaneous receivables and other current assets at December 31, 2021 breaks down as follows:

(million euros)		12/31/2021	*of which Financial Instruments*	12/31/2020	*of which Financial Instruments*
Trade receivables					
Receivables from customers		824	*824*	1,423	*1,423*
Receivables from other telecommunications operators		1,044	*1,044*	677	*677*
Receivables from subsidiaries		658	*658*	163	*163*
Receivables from associates and joint ventures		13	*13*	30	*30*
Receivables from other related parties		20	*20*	3	*3*
Customer collections pending credit		5	*5*	9	*9*
	(a)	**2,564**	***2,564***	**2,305**	***2,305***
Miscellaneous receivables (current)					
Receivables from subsidiaries		5	—	8	—
Receivables from associates and joint ventures		2	—	7	—
Receivables from other related parties		—	—	—	—
Receivables due from others		462	*77*	202	78
	(b)	**469**	***77***	**217**	***78***
Other current assets					
Contract assets		17	*17*	23	*23*
Deferred contract costs		571	—	658	
Other cost deferrals		231	—	201	
Other		79	—	60	—
	(c)	**898**	***17***	**942**	***23***
Total	**(a+b+c)**	**3,931**	***2,658***	**3,464**	***2,406***

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

The analyses of the aging of the financial instruments included in Trade and miscellaneous receivables and other current assets at December 31, 2021 and December 31, 2020 are provided below:

(million euros)	12/31/2021	of which non-overdue	of which overdue	*Overdue:* *0-90 days*	*91-180 days*	*181-365 days*	*More than 365 days*
Trade and miscellaneous receivables and other current assets	**2,658**	2,292	366	95	51	39	181

(million euros)	12/31/2020	of which non-overdue	of which overdue	*Overdue:* *0-90 days*	*91-180 days*	*181-365 days*	*More than 365 days*
Trade and miscellaneous receivables and other current assets	**2,406**	1,976	430	45	83	59	243

Financial instruments included in trade and miscellaneous receivables and other current assets include Assets deriving from contracts with customers (Contract Assets) for 17 million euros; they increased by 252 million euros compared to December 31, 2020. In particular:

- **current net receivables**: increased by 316 million euros mainly due to the impact - starting 2021 - of transactions with FiberCop and Noovle and the dynamics seen in wholesale. This performance contrasts with the reduction of receivables for subscribers, particularly to the greater disposals;
- **overdue net receivables**: dropped by 64 million euros, mainly following the reduction in stocks of receivables due from subscribers (due to the improved collection performance and fewer non-performing positions) and wholesale receivables (due to settlement agreements and repricing). This trend contrasts with the aging bracket between 0 and 90 days, the increase in receivables for miscellaneous billing and roaming.

Trade receivables

These came to 2,564 million euros (2,305 million euros at December 31, 2020) and were net of the related provision for bad debts of 420 million euros (496 million euros at December 31, 2020); in particular, the provision for bad debt at December 31, 2021 was impacted by the provisions made in 2021 for a total of 124 million euros, of which 20 million euros are non-recurring in relation to the COVID-19 emergency, which resulted in a worsening of the Expected Credit Loss of part of the customer base following deterioration of the macroeconomic context. Further details are provided in the Note "Significant non-recurring events and transactions" of the Separate Financial Statements at December 31, 2021 of TIM S.p.A.

Movements in the provision for bad debts were as follows:

(million euros)	12/31/2021	12/31/2020
At January 1	**496**	**549**
Provision charges to the income statement	124	187
Draw downs and other changes	(200)	(240)
At December 31	**420**	**496**

Trade receivables increased by 259 million euros compared to December 31, 2020, mainly as a result of the changes in the receivables due from customers and subsidiaries.

Moreover, on June 30, 2021, the purchase of the BT Italia Business Unit took effect, offering services to public administration customers and small and medium businesses/enterprises (SMB/SME). As a result of this operation, TIM received 24 million euros in trade receivables due from the customer base in the scope of business acquired.

In particular, we report:

- Receivables from customers: amounted to 824 million euros and dropped by 599 million euros compared to December 31, 2020;
- Receivables from other operators: amounted to 1,044 million euros and rose by 367 million euros compared to December 31, 2020;
- receivables from consolidated subsidiaries: amounted to 658 million euros and increased by 495 million euros compared to December 31, 2020, mainly following greater receivables due form FiberCop for delivery activities on the secondary network (492 million euros); there are also greater receivables due for the supply of TLC products and services to Noovle S.p.A. (88 million euros), TIM Retail (19 million euros), Telecom Italia Sparkle (19 million euros), TIM S.A. (12 million euros), Telenergia (9 million euros), Olivetti (6 million euros) and Telecontact (3 million euros);

- Receivables from associates: amounted to 13 million euros (30 million euros at December 31, 2020) and relate to the supply of services to INWIT, which has become an associate;
- receivables from associates: amounted to 20 million euros (3 million euros at December 31, 2020) and relate to the supply of services to the Cassa Depositi e Prestiti Group.

Miscellaneous receivables (current)

Amounted to 469 million euros (net of a provision for bad debts of 37 million euros) increase by 252 million euros compared to December 31, 2020. They include:

- **Receivables from subsidiaries**: these amounted to 5 million euros (8 million euros at December 31, 2020) and mainly were related to receivables from Group companies for the tax consolidation (3 million euros);
- **Receivables from associates and joint ventures**: these amounted to 2 million euros (7 million euros at December 31, 2020) and relate to INWIT, which has become an associate;
- **Other receivables**: totaled 462 million euros and break down as follows:

(million euros)	12/31/2021	12/31/2020
Advances to suppliers	256	3
Receivables from employees	8	8
Tax receivables	15	1
Receivables for grants from the government and public entities	14	29
Sundry receivables	169	161
Total	**462**	**202**

Tax receivables amounted to 15 million euros and are essentially represented by credit amounts resulting from tax returns, tax credits, as well as VAT credits on the acquisition of motor vehicles and related accessories requested for reimbursement pursuant to Law Decree no. 258/2006 converted with amendments by Law no. 278/2006.

Receivables for grants from the government and public entities (14 million euros) referred mainly to the ultrabroadband-UBB and broadband-BB projects. The grants are recognized to the income statement when the related plants become ready for use.

Sundry receivables mainly included:

- receivables for with-recourse assignments to factoring companies (43 million euros);
- receivables from social security and pension institutions (13 million euros);
- miscellaneous receivables from other TLC operators (32 million euros);
- receivables for Universal Service (52 million euros).

Other current assets

Other current assets amounted to 898 million euros and dropped by 44 million euros compared to December 31, 2020; they included:

- **Assets resulting from contracts with customers - Contract Assets** (17 million euros, 23 million euros at December 31, 2020): these refer to the advance recognition of revenues for those bundle contracts (such as product and service packages) with the individual Performance Obligations with different timing for their recognition, in which goods recognized "at point in time" are sold at a discounted price, or for those contracts which, envisaging a discount for a period of time less than the minimum contract duration, pursuant to IFRS 15 need the discount to be reallocated over the minimum contract duration. Contract Assets - net of the related write-down provision of 1 million euros - are down by 6 million euros compared to December 31, 2020, since the reversal to the income statement of the previously accumulated balance was substantially offset by the need to distribute discounts granted to customers temporally over the minimum contractual term, with particular reference to those connected with the impact of COVID-19;
- **Deferred contract costs** (571 million euros, 658 million euros at December 31, 2020) and are contract costs, technical activation costs and commissions for the sales network) deferred and recognized in the separate income statement according to the expected duration of the contractual relationship with customers. As indicated above, in 2021 the expected duration of the contractual relationship went from 3 to 4 years for the mobile business and from 7 to 8 years for the fixed-line business, with a positive impact totaling 180 million euros at December 31, 2021. For additional details on the deferred contract costs and their movement during the year, refer to the Note "Miscellaneous receivables and other non-current assets";
- **Other cost deferrals**: amounted to 231 million euros and mainly related to:
  - 176 million euros for the deferral of costs related to rental fees and other lease and rental cost;
  - 24 million euros for the deferral of costs for the purchase of products and services;
  - 23 million euros for the deferral of after-sales expenses on application offers;
  - 4 million euros for insurance premiums;
  - 3 million euros for maintenance fees.
- **Other** (79 million euros, 60 million euros at December 31, 2020): these include approximately 19 million euros in receivables for works from the subsidiary FiberCop. The increase compared to December 31, 2020 was mainly linked to higher receivables from network jobs for third party companies.

NOTE 13
EQUITY

This item is composed as follows:

(million euros)	12/31/2021	12/31/2020
Capital issued	**11,677**	**11,677**
less: Treasury shares	(63)	(19)
Share capital	**11,614**	**11,658**
Additional paid-in capital	**2,133**	**2,133**
Legal reserve	**2,335**	**2,313**
Other reserves:		
Merger surplus reserve	1,734	1,734
Other	(295)	(528)
Total other reserves	**1,439**	**1,206**
Retained earnings, including profit (loss) for the year	**(957)**	**7,698**
Total	**16,564**	**25,008**

Movements in share capital during 2021 are presented in the following tables:

Reconciliation between the number of shares outstanding at 12/31/2020 and at 12/31/2021

(number of shares)		As at 12/31/2020	Share assignment/ issue	As at 12/31/2021	% on Capital
Ordinary shares issued	(a)	15,329,466,496	—	15,329,466,496	71.78
less: treasury shares	(b)	(35,179,709)	(80,762,487)	(115,942,196)	
Ordinary shares outstanding	(c)	15,294,286,787	(80,762,487)	15,213,524,300	
Savings shares issued and outstanding	(d)	6,027,791,699	—	6,027,791,699	28.22
Total shares issued	**(a+d)**	**21,357,258,195**	**—**	**21,357,258,195**	**100.00**
Total shares outstanding	**(c+d)**	**21,322,078,486**	**(80,762,487)**	**21,241,315,999**	

Reconciliation between the value of shares outstanding at 12/31/2020 and at 12/31/2021

(thousands of euros)		Share capital at 12/31/2020	Change in share capital	Share Capital at 12/31/2021
Ordinary shares issued	(a)	8,381,330		8,381,330
less: treasury shares	(b)	(19,235)	(44,156)	(63,391)
Ordinary shares outstanding	(c)	8,362,095	(44,156)	8,317,939
Savings shares issued and outstanding	(d)	3,295,673		3,295,673
Total share capital issued	**(a+d)**	**11,677,003**	**—**	**11,677,003**
Total share capital outstanding	**(c+d)**	**11,657,768**	**(44,156)**	**11,613,612**

The amount of treasury shares during 2021 changed as follows:

- decrease due to the assignment of 6,715,617 ordinary TIM shares to implement the 2018-2020 Long Term Incentive Plan;
- increase due to the transfer of ownership to TIM of the 126,082,374 TIM ordinary shares previously owned by Telecom Italia Finance, at the same time as payment of an extraordinary dividend partly in kind by the subsidiary to the Parent Company;
- decrease due to the assignment of 38,604,270 ordinary TIM shares free of charge to entitled Group employees adhering to the 2020 Broad-Based Share Ownership Plan.

Disclosure on share capital

The ordinary and savings shares of TIM S.p.A. are listed in Italy (FTSE index).

In the shareholder resolutions passed to increase share capital against cash payments, the pre-emption right can be excluded to the maximum extent of ten percent of the pre-existing share capital, on condition that the issue price corresponds to the market price of the shares and that this is confirmed in a specific report issued by the firm charged with the audit of the Company.

The Company sources itself with the capital necessary to fund its requirements for business development and operations; the sources of funds are found in a balanced mix of equity, permanently invested by the shareholders, and debt capital, to guarantee a balanced financial structure and minimize the total cost of capital, with a resulting advantage to all the stakeholders.

Debt capital is structured according to different maturities and currencies to ensure an adequate diversification of the sources of funding and an efficient access to external sources of financing (taking advantage of the best opportunities offered in the financial markets of the euro, U.S. dollar and Pound sterling areas to minimize costs), taking care to reduce the refinancing risk.

The remuneration of equity is proposed by the Board of Directors to the Shareholders' Meeting, which meets to approve the annual financial statements, based upon market trends and business performance, once all the other obligations are met, including debt servicing. Therefore, in order to guarantee an adequate remuneration of capital, safeguard company continuity and business development, the Company constantly monitors the change in debt levels in relation to equity, the level of net debt and the operating margin of industrial operations.

Privileges of savings shares

The privileges of TIM S.p.A. savings shares are indicated below:

- the profit shown in the duly approved financial statements, after deducting the amount to be allocated to the legal reserve, must be distributed to the holders of savings shares in an amount up to 5% of the 0.55 euros per share;
- after assigning preferred dividends to the savings shares, the distribution of which is approved by the shareholders' meeting, the remaining profit shall be allocated among all the shares, so that savings shares are entitled to higher overall dividends than ordinary shares would be entitled to, to the extent of 2% of 0.55 euros per share;
- when, in any one year, dividends of below 5% of the 0.55 euros per share are paid to the savings shares, the difference is determined as an increase of the privileged dividend in the next two subsequent years;
- in the case of the distribution of reserves, the savings shares have the same rights as ordinary shares. Moreover, when there is no profit or insufficient profit is reported in the financial statements for a given year to satisfy the aforesaid savings shares privileges, the Shareholders' Meeting called to approve those financial statements may choose to satisfy the dividend right and/or the higher dividend right by distributing available reserves. The distribution of available reserves for such payments excludes the application of the mechanism extending the right to the preferred dividend not paid through the distribution of profits for the following two years;
- the reduction of share capital as a result of losses does not affect the savings shares except for the amount of the loss which is not covered by the portion of the share capital represented by the other shares;
- upon the wind-up of TIM S.p.A., the savings shares have a pre-emption right in the reimbursement of capital up to the amount of 0.55 euros per share;
- in the event of the cessation of trading in the Company's ordinary or savings shares, the holder of savings shares may ask TIM S.p.A. to convert his/her shares into ordinary shares, using the method selected during a special session of the shareholders' meeting called for that purpose within two months of being excluded from trading.

It should be noted that the share capital carries a restriction on tax suspension for fiscal purposes for an amount of 11,104 million euros, unchanged on December 31, 2020 and inclusive of 9,913 million restricted in accordance with Decree Law 104/2020, art. 110, subsection 8.

Additional paid-in capital at December 31, 2021 amounted to 2,133 million euros, showing no change on December 31, 2020. The reserve is entirely restricted under tax suspension in accordance with Decree Law 104/2020, Art. 110, subsection 8.

The **Legal reserve** at December 31, 2021, was 2,335 million euros, up by 22 million euros compared to December 31, 2020 due to the allocation of 2020 profits. This reserve is entirely restricted under tax suspension in accordance with Decree Law 104/2020, Art. 110, subsection 8, also taking into account the restriction of 501 million in accordance with Decree Law 104/2020, Art. 110, subsection 8.

Other reserves totaled 1,439 million euros at December 31, 2021, increasing by 233 million euros compared to December 31, 2020.

The Other reserves moved through the Statements of Comprehensive Income are broken down as follows:

- Reserve for remeasurements of employee defined benefit plans (negative 117 million euros): the reserve decreased by 11 million euros compared to December 31, 2020, following the recognition of employee severance indemnity actuarial gains for the year 2021, after the net fiscal impact;
- Reserve for fair value adjustment of hedging derivative instruments (a negative 945 million euros, up 269 million euros compared to December 31, 2020): this reserve is related to the accounting of cash flow hedge transactions. In particular, it refers to unrealized gains and losses, net of the related tax effect, arising from the fair value adjustment of the financial instruments designated as cash flow hedges;
- Reserve for financial assets measured at fair value through other comprehensive income (13 million euros): this reserve increased by 3 million euros compared to December 31, 2020.

The Other reserves also include:

- Merger surplus reserve (1,734 million euros): this remains unchanged on December 31, 2020. The reserve is entirely restricted under tax suspension in accordance with Decree Law 104/2020, Art. 110, subsection 8.
- Reserve for other equity instruments: this reserve amounted to 165 million euros (down by 38 million euros compared to December 31, 2020) and consisted of:
    - the amount of the convertible bond maturing 2015-2022 (142 million euros);
    - the amount of the 2020-2022 Long Term Incentive Plan, approved by the Shareholders' Meeting on April 23, 2020 (23 million euros).

  For further details, refer to the Note "Equity Compensation Plans".
  Note that the reserve, for 142 million euros, is restricted under tax suspension in accordance with Decree Law 104/2020, Art. 110, subsection 8.
- Unavailable reserve originating from the application of Article 7, paragraph 7 of Italian Legislative Decree 38/2005 (521 million euros): unchanged from December 31, 2020. This reserve is entirely restricted under tax suspension in accordance with Decree Law 104/2020, Art. 110, subsection 8.
- Miscellaneous reserves (68 million euros). Note that these reserves, for 58 million euros, are restricted under tax suspension in accordance with Decree Law 104/2020, Art. 110, subsection 8.

Retained earnings (accumulated losses), including loss for the year, was negative for 957 million euros at December 31, 2021 (positive for 7,698 million euros at December 31, 2020). The movements are connected to the following changes:

- decrease of 8,314 million euros referred to 2021 results;
- reduction of 319 million euros as a result of the distribution of dividends referred to the 2020 financial statements, as approved by the Shareholders' Meeting of March 31, 2021;
- reduction of 22 million euros, connected with the provision made to the legal reserve of 5% of the 2020 profit, as approved by the Shareholders' Meeting of March 31, 2021.

Accrued profits from previous years, for 7,357 million euros, are entirely restricted under tax suspension in accordance with Decree Law 104/2020, Art. 110, subsection 8.

The following statement provides additional disclosure on equity and is prepared pursuant to Article 2427, number 7-bis, showing the items in equity separately according to their source, possibility of utilization and distribution, in addition to their utilization in the three-year period 2019-2021.

Summary pursuant to Article 2427, no. 7-bis

Nature/description (million euros)	Amount at 12/31/2021	Potential utilization	Amount available	Summary of utilizations made in the three-year period 2019-2021 — for loss coverage	for other reasons
Share capital	**11,614**				
Capital reserves:					
Additional Paid-in capital	2,134	A,B,C	2,134		
Legal reserve	1,953	B			
Reserve for other equity instruments	165	B			
Other reserves	65	A,B,C	65		
Reserve for remeasurements of defined benefit plans	57	A,B,C	57		
Reserve pursuant to Article 7, paragraph 7, Italian Law Decree 38/2005	521	B			
Merger surplus reserve	1,679	A,B,C	1,679		
Profit reserves:					
Additional Paid-in capital	(1)		(1)		
Legal reserve	382	B			
Reserve pursuant to Article 34, Italian Law 576/1975	—	A,B,C	—	13	
Other reserves	5	A,B,C	5		
Reserve for fair value adjustment of cash flow hedges and related underlying instruments	(945)		—		
Reserve for available-for-sale financial assets	13	B			
Reserve for remeasurements of defined benefit plans	(174)		(174)		
Merger surplus reserve	55	A,B,C	55		
Profits carried forward	7,357	A,B,C	7,357	1,841	166
Total	**24,880**		**11,177**	**1,854**	**166**
Treasury shares			(65)		
Amount not distributable [1]			—		
Residual distributable percentage			**11,112**		

Key:
A = for increases in capital;
B = for loss coverage;
C = for distribution to shareholders
[1] Represents the amount not distributable as the part of additional paid-in capital needed to supplement the legal reserve to reach 1/5 of the share capital.

Specifically, the amounts shown in the column "Summary of the amounts utilized in the three-year period 2019/2021 – for other reasons" relate to the distribution of dividends.

At December 31, 2021, the Company had tax-suspended reserves of 14,281 million euros (unchanged compared to 12/31/2020), subject to taxation in the event of distribution, on which taxes had not been allocated as their distribution is not foreseen. In particular, the amount of the total restriction of 22,359 million euros satisfies the condition set by Decree Law 104/2020 art. 110, paragraph 8 in relation to the tax recognition of higher values recorded in the financial statements (goodwill) and can be broken down as follows:

- share capital under tax suspension for 9,913 million euros;
- designated reserves under tax suspension for 12,446 million euros (as identified previously).

The table below shows the restrictions, pursuant to Article 109, paragraph 4, letter b) of TUIR, relating to off-book deductions effected for income tax purposes in past years:

(million euros)

Off-book deductions at 12/31/2020	**19**
Reversal for taxation during the year	—
Off-book deductions at 12/31/2021	**19**
Deferred taxes	(4)
Restriction on equity at 12/31/2021	**15**

This regime imposes a restriction on all equity reserves, without distinction, for an amount equal to the off-book deductions net of the relative deferred taxes provided. This restriction remains until such time as the excess tax deductions and consequent taxation are recovered in the books.
More specifically, compared with the situation at December 31, 2020, deductions remain essentially unchanged.
Therefore, taking into account the residual deductions effected in prior years and not covered by the fiscal realignment carried out in accordance with Italian Law 244 dated December 24, 2007, the total restriction on equity in the separate financial statements amounts to 15 million euros.

Future potential changes in share capital

The table below shows future potential changes in share capital, based on the issuance of the convertible bond by TIM S.p.A. in March 2015, (the capital increase was carried out) and plans for long-term share incentives, still outstanding at December 31, 2021:

	Number of maximum shares issuable	Share capital (thousands of euros)	Additional paid-in capital (thousands of euros)	Subscription price per share (euros)
Capital increases already approved (ordinary shares)				
2020-2022 Long Term Incentive Plan (free issue)	180,000,000			
Stock Options	**180,000,000**			
2015 Convertible Bond (ordinary shares)(*)	1,138,239,144	2,000,000	N.A.	N.A.
Bonds	**1,138,239,144**	**2,000,000**		
Total	**1,318,239,144**	**2,000,000**		

(*) The number of shares potentially issuable shown may be subject to adjustments.

Further information is provided in the Notes “Non-current and current financial liabilities” and “Equity compensation plans”.

NOTE 14

NON-CURRENT AND CURRENT FINANCIAL LIABILITIES

Non-current and current financial liabilities (gross financial debt) are broken down as follows:

(million euros)		12/31/2021	12/31/2020
Non-current financial liabilities for financing contracts and others			
Non-current financial payables:			
Bonds		12,506	12,548
Convertible bonds		—	1,958
Payables to banks		2,627	2,649
Payables to other lenders		25	29
Payables due to subsidiaries		4,078	4,204
		19,236	**21,388**
Other non-current financial liabilities:			
Hedging derivatives relating to hedged items classified as non-current assets/liabilities of a financial nature		1,337	1,813
Non-hedging derivatives		1,303	1,239
Other liabilities		1	—
		2,641	**3,052**
	(a)	**21,877**	**24,440**
Non-current financial liabilities for lease contracts			
Payables to subsidiaries		29	497
Payables to associates		268	313
Payables to third parties		2,446	2,696
	(b)	**2,743**	**3,506**
Total non-current financial liabilities	**c=(a+b)**	**24,620**	**27,946**
Current financial liabilities for financing contracts and others			
Current financial payables:			
Bonds		1,386	858
Convertible bonds		1,998	6
Payables to banks		900	2,013
Payables to other lenders		225	116
Payables due to subsidiaries		429	247
Payables to associates		1	—
		4,939	**3,240**
Other current financial liabilities:			
Hedging derivatives relating to hedged items classified as current assets/liabilities of a financial nature		54	53
Non-hedging derivatives		52	49
Other liabilities		—	—
		106	**102**
	(d)	**5,045**	**3,342**
Current financial liabilities for lease contracts			
Payables to subsidiaries		6	14
Payables to associates		73	50
Payables to third parties		355	399
	(e)	**434**	**463**
Total Current financial liabilities	**f=(d+e)**	**5,479**	**3,805**
Total financial liabilities (Gross Financial Debt)	**g=(c+f)**	**30,099**	**31,751**

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

Gross financial debt according to the original currency of the transaction is as follows:

	12/31/2021 (millions of foreign currency)	12/31/2021 (million euros)	12/31/2020 (millions of foreign currency)	12/31/2020 (million euros)
USD	2,508	2,215	2,507	2,043
GBP	389	463	389	433
YEN	20,031	154	20,000	158
EUR		27,267		29,117
		30,099		**31,751**

The breakdown of gross financial debt by effective interest-rate bands applicable to the original transaction is provided below, excluding the effect of any derivative hedging instruments:

(million euros)	12/31/2021	12/31/2020
Up to 2.5%	7,692	7,862
From 2.5% to 5%	13,236	14,282
From 5% to 7.5%	4,196	4,111
From 7.5% to 10%	1,727	1,730
Over 10%	4	4
Accruals/deferrals, MTM and derivatives	3,244	3,762
	30,099	**31,751**

Following the use of derivative hedging instruments, on the other hand, the gross financial debt by nominal interest rate bracket is:

(million euros)	12/31/2021	12/31/2020
Up to 2.5%	10,443	13,232
From 2.5% to 5%	10,334	8,515
From 5% to 7.5%	4,347	4,508
From 7.5% to 10%	1,727	1,730
Over 10%	4	4
Accruals/deferrals, MTM and derivatives	3,244	3,762
	30,099	**31,751**

The maturities of financial liabilities according to the expected nominal repayment amount, as defined by contract, are the following:

Details of the maturities of financial liabilities – at nominal repayment amount:

	maturing by 12/31 of the year:						
(million euros)	2022	2023	2024	2025	2026	After 2026	Total
Bonds	3,098	2,446	3,324	2,000	1,750	2,920	15,538
Loans and other financial liabilities	889	1,294	784	1,053	52	3,988	8,060
Financial liabilities for lease contracts	402	344	368	356	347	1,329	3,146
Total	**4,389**	**4,084**	**4,476**	**3,409**	**2,149**	**8,237**	**26,744**
Current financial liabilities	616	—	—	—	—	—	616
Total	**5,005**	**4,084**	**4,476**	**3,409**	**2,149**	**8,237**	27,360

The main components of financial liabilities are commented below.

Bonds are broken down as follows:

(million euros)	12/31/2021	12/31/2020
Non-current portion	12,506	12,548
Current portion	1,386	858
Total carrying amount	**13,892**	**13,406**
Fair value adjustment and measurement at amortized cost	(354)	(432)
Total nominal repayment amount	**13,538**	**12,974**

Convertible bonds consist of the unsecured equity-linked bond for 2,000 million euros, with a coupon of 1.125%, issued by TIM S.p.A., convertible into newly-issued ordinary shares, maturing in 2022. This item was broken down as follows:

(million euros)	12/31/2021	12/31/2020
Non-current portion	—	1,958
Current portion	1,998	6
Total carrying amount	**1,998**	**1,964**
Fair value adjustment and measurements at amortized cost	2	36
Total nominal repayment amount	**2,000**	**2,000**

The nominal repayment amount of bonds and convertible bonds totaled 15,538 million euros, up by 564 million euros compared to December 31, 2020 (14,974 million euros) as a result of new issues and repayments in 2020.

The change in bonds during 2021 was as follows:

New issues

(millions of original currency)	Currency	Amount	Issue date
New issues			
Telecom Italia S.p.A. 1,000 million euros 1.625%	Euro	1,000	1/18/2021

On January 18, 2021, TIM issued its first 8-year Sustainability Bond for an amount of 1 billion euros, coupon 1.625%.

Repayments

(millions of original currency)	Currency	Amount	Repayment date
Repayments			
Telecom Italia S.p.A. 564 million euros 4.500% (1)	Euro	564	1/25/2021

(1) Net of buy-backs totaling 281 million euros made by the company in 2015.

Note that on December 31, 2021, the "Telecom Italia S.p.A. 2002-2022 Floating Rate bonds, Open Special series, reserved for subscription by employees of the Telecom Italia Group, in service or retired" bond was closed and the bonds fully repaid starting January 1, 2022, in accordance with the relevant Regulation.

The following table lists the bonds issued by TIM S.p.A., expressed at the nominal repayment amount, net of bond repurchases, and also at market value:

Currency	Total (millions)	Nominal repayment amount (million euros)	Coupon	Issue date	Maturity date	Issue price (%)	Market price at 12/31/21 (%)	Market value at 12/31/21 (million euros)
Bonds issued								
Euro	(a) 213.5	214	6 month Euribor (base 365)	1/01/2002	1/01/2022	100	100	214
Euro	883.9	884	5.250%	2/10/2010	2/10/2022	99.295	100.692	890
Euro	(b) 2,000	2,000	1.125%	3/26/2015	3/26/2022	100	100.135	2,003
Euro	1,000	1,000	3.250%	1/16/2015	1/16/2023	99.446	103.037	1,031
GBP	375	446	5.875%	5/19/2006	5/19/2023	99.622	104.491	466
Euro	1,000	1,000	2.500%	1/19/2017	7/19/2023	99.288	102.507	1,025
Euro	750	750	3.625%	1/20/2016	1/19/2024	99.632	104.032	780
Euro	1,250	1,250	4.000%	1/11/2019	4/11/2024	99.436	104.961	1,312
USD	1,500	1324	5.303%	5/30/2014	5/30/2024	100	105.321	1,395
Euro	1,000	1,000	2.750%	4/15/2019	4/15/2025	99.320	102.491	1,025
Euro	1,000	1,000	3.000%	9/30/2016	9/30/2025	99.806	103.084	1,031
Euro	750	750	2.875%	6/28/2018	1/28/2026	100	102.431	768
Euro	1,000	1,000	3.625%	5/25/2016	5/25/2026	100	105.519	1,055
Euro	1,250	1,250	2.375%	10/12/2017	10/12/2027	99.185	98.860	1,236
Euro	1,000	1,000	1.625%	1/18/2021	1/18/2029	99.074	92.023	920
Euro	670	670	5.250%	3/17/2005	3/17/1955	99.667	106.021	710
Total		**15,538**						**15,861**

(a) Reserved for employees.
(b) Bond convertible into newly-issued TIM S.p.A. ordinary treasury shares.

The regulations and/or Offering Circulars relating to the bonds described above are available on the corporate website at the address: gruppotim.it.

Non-current payables to banks totaled 2,627 million euros (2,649 million euros at December 31, 2020). Current payables to banks totaled 900 million euros, down by 1,113 million euros (2,013 million euros at December 31, 2020) and included 700 million euros of the current portion of non-current amounts due to banks.
Non-current **payables to other lenders** totaled 25 million euros (29 million euros at December 31, 2020), while current payables totaled 225 million euros (116 million euros at December 31, 2020) and included 5 million euros representing the current portion of non-current payables to other lenders.

Non-current payables to subsidiaries amounted to 4,078 million euros (4,204 million euros at December 31, 2020) and consisted of loans obtained from Telecom Italia Capital S.A. (2,924 million euros) and from Telecom Italia Finance S.A. (1,154 million euros), following the issues of bonds placed by the financial companies of the Group on the United States and Luxembourg markets.
Current payables to subsidiaries amounted to 429 million euros and increased by 182 million euros compared to December 31, 2020 (247 million euros). Include:

- the current portion of non-current loans to Telecom Italia Capital S.A. (200 million euros) and Telecom Italia Finance S.A. (35 million euros);
- current accounts as part of the treasury services regulated at market rates for a total of 194 million euros, particularly with Telecom Italia Sparkle (57 million euros), TIM Retail S.r.l. (47 million euros), Olivetti S.p.A. (35 million euros), Telecontact Center S.p.A. (33 million euros), FiberCop S.p.A. (13 million euros).

Non-current financial liabilities for lease contracts amounted to 2,743 million euros (3,506 million euros at December 31, 2020). Current finance lease liabilities amounted to 434 million euros (463 million euros at December 31, 2020) and referred for 432 million euros to the current portion of non-current finance lease liabilities.
With reference to the finance lease liabilities recognized in 2021 and 2020 the following is noted:

(million euros)	12/31/2021	12/31/2020
Principal reimbursements	407	575
Cash out interest portion	127	119
Total	**534**	**694**

Hedging derivatives relating to items classified as non-current financial liabilities amount to 1,337 million euros (1,813 million euros at December 31, 2020). Hedging derivatives relating to hedged items classified as current financial liabilities amounted to 54 million euros (53 million euros at December 31, 2020).

Non-current non-hedging derivatives amounted to 1,303 million euros (1,239 million euros at December 31, 2020). Current non-hedging derivatives amounted to 52 million euros (49 million euros at December 31, 2020). These line items include the measurement in the liabilities of transactions which TIM S.p.A. carries out with banking counterparties to service the companies of the Group in its exclusive role as the centralized treasury function (cash pooling), and are offset in full by the corresponding items classified as financial assets.
Further details are provided in the Note "Derivatives".

Covenants, negative pledges and other contract clauses in effect at December 31, 2021

Bonds issued by the TIM Group do not contain financial covenants (e.g. ratios such as Debt/EBITDA, EBITDA/Interest, etc.) or clauses that result in the automatic early redemption of the bonds in relation to events other than the insolvency of the TIM Group[1]; furthermore, the repayment of the bonds and the payment of interest are not covered by specific guarantees nor are there commitments provided relative to the assumption of future guarantees, except for the full and unconditional guarantees provided by TIM S.p.A. for the bonds issued by Telecom Italia Finance S.A. and Telecom Italia Capital S.A..

Since the bonds were placed principally with institutional investors in major world capital markets (Euromarket and the U.S.A.), the terms which regulate the bonds are in line with market practice for similar transactions effected on these same markets. Consequently, they carry negative pledges, such as, for example, the commitment not to pledge the company's assets as collateral for loans.

Regarding loans taken out by TIM S.p.A. from the European Investment Bank (EIB), on May 19, 2021, TIM entered into a new loan for an amount of 230 million euros, in support of projects to digitize the country. In addition, it has extended the loan signed in 2019 for an amount of 120 million euros. Therefore, at December 31, 2021 the nominal total of outstanding loans with the EIB was 1,200 million euros, all drawn down and not backed by bank guarantee.
The three EIB loans signed on December 14, 2015, November 25, 2019 and May 19, 2021 contain the following covenants:

- in the event the company becomes the target of a merger, demerger or conferral of a business segment outside the Group, or sells, disposes of or transfers assets or business segments (except in certain cases, expressly provided for), it shall immediately inform the EIB which shall have the right to ask for guarantees to be provided or changes to be made to the loan contract, or, only for certain loan contracts, the EIB shall have the option to demand the immediate repayment of the loan (should the merger, demerger or conferral of a business segment outside the Group compromise the Project execution or cause a prejudice to EIB in its capacity as creditor);
- TIM undertook to ensure that, for the entire duration of the loan, the total financial debt of the Group companies other than TIM S.p.A. – except for the cases when that debt is fully and irrevocably secured by TIM S.p.A. – is lower than 35% (thirty-five percent) of the Group's total financial debt;
- "Inclusion clause", under which, in the event TIM commits to uphold financial covenants in other loan contracts (and even more restrictive clauses, including, for instance, cross default clauses and commitments restricting the sale of goods) that are not present in or are stricter than those granted to the EIB, the EIB will have the right – if, in its reasonable opinion, it considers that such changes may have a negative impact on TIM's financial capacity – to request the provision of guarantees or an amendment of the loan contract in order to establish an equivalent provision in favor of the EIB;
- "Network Event", under which, in the event of the disposal of the entire fixed network or of a substantial part of it (in any case, more than half in quantitative terms) to third parties not controlled by the Company, or in the event of disposal of the controlling interest in the company in which the network or a substantial part of it has previously been transferred, TIM must immediately inform the EIB, which may then opt to demand collateral or an amendment of the loan contract or choose an alternative solution.

The loan agreements of TIM S.p.A. do not contain financial covenants (e.g. ratios such as Debt/EBITDA, EBITDA/Interest, etc.) which would oblige the Company to repay the outstanding loan if the covenants are not observed.
The loan agreements contain the usual other types of covenants, including the commitment not to pledge the Company's assets as collateral for loans (negative pledge) and the commitment not to change the business purpose or sell the assets of the Company unless specific conditions exist (e.g. the sale takes place at fair market value). Covenants with basically the same content can be found in the export credit loan agreement.
In the Loan Agreements and the Bonds, TIM is required to provide notification of change of control. Identification of the occurrence of a change of control and the applicable consequences – including, at the discretion of the investors, the establishment of guarantees or the early repayment of the amount paid in cash or as shares and the cancellation of the commitment in the absence of agreements to the contrary – are specifically covered in the individual agreements.
In addition, the outstanding loans generally contain a commitment by TIM, whose breach is an Event of Default, not to implement mergers, demergers or conferrals of business, involving entities outside the Group. Such an Event of Default may entail, upon request of the Lender, the early redemption of the drawn amounts and/or the annulment of the undrawn commitment.

Finally, as at December 31, 2021, no covenant, negative pledge or other clause relating to the aforementioned debt position had in any way been breached or violated.

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[1] A change of control event can result in the early repayment of the convertible bond of TIM S.p.A., as further detailed below.

Revolving Credit Facility

The following table shows committed credit lines available at December 31, 2021:

(billion euros)	12/31/2021		12/31/2020	
	Agreed	Drawn down	Agreed	Drawn down
Sustainability-linked RCF - maturing May 2026	4.0	—	—	—
Revolving Credit Facility – maturing January 2023	—	—	5.0	—
Bridge to Bond Facility – maturing May 2021	—	—	1.7	—
Total	**4.0**	**—**	**6.7**	**—**

At December 31, 2021, TIM had bilateral Term Loans for 850 million euros with various banking counterparties and an overdraft facility for 200 million euros, drawn down for the full amount.

On January 19, 2021, TIM entirely canceled the credit line for 1.7 billion euros, which was not used, stipulated on May 18, 2020 as bridge to bond for subsequent issues on the bond market and an initial maturity of 12 months with an option of extension for another 12 months.

On May 13, 2021, TIM extended the Revolving Credit Facility by 5 years, reducing the amount to 4 billion euros and making it the Group's first ever ESG-linked credit facility.

TIM's rating at December 31, 2021

At December 31, 2021, the three rating agencies – Standard & Poor’s, Moody’s and Fitch Ratings – rated TIM as follows:

	Rating	Outlook
STANDARD & POOR'S	BB	Stable
MOODY'S	Ba2	Negative
FITCH RATINGS	BB+	Stable

On March 08, 2022, the ratings agency Moody’s modified the rating from Ba2 to Ba3, confirming the outlook relative to its opinion on TIM as “Negative”.

NOTE 15
NET FINANCIAL DEBT

The table below shows the breakdown of net financial debt of the TIM Group at December 31, 2021 and December 31, 2020, determined in accordance with the provisions of the "*Guidelines on disclosure requirements under the Prospectus Regulation*" issued by the ESMA (European Securities & Markets Authority) on March 4, 2021 (ESMA32-382-1138) and incorporated by Consob with its Note of Attention no. 5/21 dated April 29, 2021.
This table also shows the reconciliation of the net financial debt determined according to the aforementioned criteria indicated by the ESMA and net financial debt calculated according to the criteria of TIM S.p.A..

(million euros)		12/31/2021	12/31/2020
Liquid assets with banks, financial institutions and post offices	(a)	(3,532)	(1,673)
Other cash and cash equivalents	(b)	(26)	(93)
Securities other than investments	(c)	—	—
Liquidity	**(d=a+b+c)**	**(3,558)**	**(1,766)**
Current financial debt (including debt instruments, but excluding the current portion of non-current financial debt)	(e)	618	1,129
Current portion of non-current financial debt	(f)	4,768	2,581
Current financial debt	**(g=e+f)**	**5,386**	**3,710**
Net current financial debt	**(h=g-d)**	**1,828**	**1,944**
Non-current financial debt (excluding the current part and debt instruments)	(i)	10,443	11,701
Debt instruments	(j)	12,506	14,506
Trade payables and other non-current debt (**)	(k)	1	1,739
Non-current financial debt	**(l=i+j+k)**	**22,950**	**27,946**
Total net financial debt as per ESMA guidelines 32-382-1138	**(m=h+l)**	**24,778**	**29,890**
Trade payables and other non-current debt (**)		(1)	(1,739)
Non-current financial receivables arising from lease contracts		(11)	(17)
Current financial receivables arising from lease contracts		(39)	(44)
Financial receivables and other current financial assets		(23)	(15)
Other financial receivables and other non-current financial assets		(2,767)	(751)
Subtotal	**(n)**	**(2,841)**	**(2,566)**
Net financial debt carrying amount (*)	(p=m+n)	**21,937**	**27,324**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	(q)	(1,325)	(1,541)
Adjusted Net Financial Debt	**(r=p+q)**	**20,612**	**25,783**

(*) As regards the effects of related-party transactions on net financial debt, reference should be made to the specific table included in the Note "Related-party transactions".

(**) The amount at 12/31/2020 includes the residual payable relating to the acquisition of the rights-of-use for the 5G licenses, equal to 1,738 million euros. At 12/31/2021, that amount was reclassified to Miscellaneous payables and other non-current liabilities, following the expiry scheduled for 2022, as described in the Note "Miscellaneous payables and other non-current liabilities".

The following additional disclosures are provided in accordance with IAS 7:

Additional cash flow information required by IAS 7

(thousands of euros)		12/31/2020	Cash movements: Receipts and/or issues	Cash movements: Payments and/or reimbursements	Non-cash movements: Exchange differences	Non-cash movements: Fair value changes	Non-cash movements: Other changes and reclassifications	12/31/2021
Non-current financial payables:								
Bonds		13,406	1,000	(564)	131	(71)	(10)	13,892
Convertible bonds		1,964					34	1,998
Payables to banks		3,853	1,100	(1,625)			(1)	3,327
Other financial payables		4,283		(5)	63		2	4,343
	(a)	**23,506**	**2,100**	**(2,194)**	**194**	**(71)**	**25**	**23,560**
of which current portion		*2,118*						*4,324*
Non-current financial liabilities for lease contracts:		**3,962**	**96**	**(407)**			**(476)**	**3,175**
	(b)	**3,962**	**96**	**(407)**	**—**	**—**	**(476)**	**3,175**
of which current portion		*456*						*432*
Other non-current financial liabilities:								
Hedging derivative liabilities relating to hedged items classified as non-current assets/liabilities of a financial nature:		1,866			(97)	(379)	1	1,391
Non-hedging derivatives		1,288			195	(130)	2	1,355
Other liabilities		—					1	1
	(c)	**3,154**	**—**	**—**	**98**	**(509)**	**4**	**2,747**
of which current portion		*102*						*106*
Current financial payables:								
Amounts due to banks		809					(609)	200
Other financial payables		320			—	—	97	417
Hedging derivative liabilities relating to hedged items classified as current financial assets/liabilities		—						—
	(d)	**1,129**	**—**	**—**	**—**	**—**	**(512)**	**617**
Total Financial liabilities (Gross financial debt)								
	(e=a+b+c+d)	**31,751**	**2,196**	**(2,601)**	**292**	**(580)**	**(959)**	**30,099**
Hedging derivative receivables relating to hedged items classified as current and non-current financial assets/liabilities	**(f)**	546			97	(237)	(15)	391
Non-hedging derivative receivables	**(g)**	1,288			195	(127)	17	1,373
Total	**(h=e-f-g)**	**29,917**	**2,196**	**(2,601)**	**—**	**(216)**	**(961)**	**28,335**

The value of the paid and collected interest expense reported in the Report on Operations takes into account the movements relating to transactions in CCIRS derivatives to hedge underlying assets in both the assets component (collections) and the liabilities component (payments) without netting the positions.

(million euros)	2021	2020
Interest expense paid	(1,296)	(1,389)
Interest income received	504	465
Net total	**(792)**	**(924)**

To consider the components of CCIRS derivatives as a single transaction, a representation is given with interest flows in and out shown net. This approach gives the following results:

(million euros)	2021	2020
Interest expense paid	(1,191)	(1,308)
Interest income received	399	384
Net total	**(792)**	**(924)**

NOTE 16
FINANCIAL RISK MANAGEMENT

Financial risk management objectives and policies of TIM S.p.A.

As reported in the Note "Financial Risk Management" of the TIM Group consolidated financial statements, TIM S.p.A. adheres to the Guidelines on "Management and control of financial risk" established for the Group.
The risk management policies of TIM S.p.A. observe the policies for the diversification of risks identified for the Group.
An optimum fixed-rate and variable-rate debt composition is defined for the entire Group and is not established for the individual companies.
As for the exchange rate risk on financial payables contracted by TIM S.p.A. denominated in currencies other than euro, such risk is hedged in full.
Derivative financial instruments are designated as fair value hedges for managing exchange rate and interest rate risk on instruments denominated in currencies other than euro and for managing interest rate risk on fixed-rate loans in euros. Derivative financial instruments are designated as cash flow hedges when the objective is to pre-set the exchange rate of future transactions and the interest rate.
All derivative financial instruments are entered into with leading banking and financial counterparts whose credit ratings are constantly monitored to reduce the credit risk.
TIM S.p.A. has current account transactions with subsidiaries, as part of its treasury services which are conducted at market rates, and multi-year loan agreements with them which are also at market rates.

Interest rate risk: sensitivity analysis

The change in interest rates on the variable component of payables and liquidity may lead to higher or lower finance income and expenses, while the changes in the level of the expected interest rate affect the fair value measurement of TIM S.p.A. derivatives. In particular:

- with regard to derivatives that convert the liabilities contracted by TIM S.p.A. to fixed rates (cash flow hedging), in line with international accounting standards that regulate hedge accounting, the fair value (mark-to-market) measurement of such instruments is set aside in a specific unavailable Equity reserve. The combined change of the numerous market variables to which the mark-to-market calculation is subject between the transaction inception date and the measurement date renders any assumption about the trend of the variables of little significance. As the contract expiration date approaches, the accounting effects described will gradually be absorbed until they cease to exist;
- if, at December 31, 2021, the interest rates in the various markets in which TIM S.p.A. operates had been 100 basis points higher/lower compared to the actual rates, then higher/(lower) finance expenses, before the tax effect, would have been recognized in the income statement for -18 million euros (68 million euros at December 31, 2020).

Refer to Note 2 "Accounting Policies" for the potential risk generated by the reform of benchmark interest rates.

Allocation of the financial structure between fixed rate and variable rate

As for the allocation of the financial structure between the fixed-rate component and the variable-rate component, for both financial assets and liabilities, reference should be made to the following tables. In the tables below we took into account the nominal repayment/investment amount (because that amount expresses the effective interest rate exposure of the Group) and, as far as financial assets are concerned, the intrinsic nature (financial characteristics and duration) of the transactions under consideration rather than just the stated contractual terms alone. Bearing that in mind, a transaction whose characteristics (short or very short time frame and frequent renewal) are such that the interest rate is periodically reset on the basis of market parameters, even though the contract does not call for re-fixing the interest rate (such as in the case of bank deposits, Euro Commercial Papers and receivables on sales of securities), has been considered in the category of variable rate.

Total Financial liabilities (at the nominal repayment amount)

	12/31/2021			12/31/2020		
(million euros)	Fixed rate	Variable rate	Total	Fixed rate	Variable rate	Total
Bonds	15,025	513	15,538	10,423	4,551	14,974
Loans and other financial liabilities (*)	8,046	3,776	11,822	8,854	4,598	13,452
Total	**23,071**	**4,289**	**27,360**	**19,277**	**9,149**	**28,426**

(*) At 12/31/2021, current liabilities totaled 616 million euros, of which 194 million euros at variable rates (1,127 million euros at 12/31/2020, of which 521 million euros at variable rates).

Total Financial assets (at the nominal investment amount)

(million euros)	12/31/2021			12/31/2020		
	Fixed rate	Variable rate	Total	Fixed rate	Variable rate	Total
Cash & cash equivalents	—	3,558	3,558	—	1,765	1,765
Other receivables	828	2,607	3,435	598	626	1,224
Total	**828**	**6,165**	**6,993**	**598**	**2,391**	**2,989**

With regard to variable-rate financial instruments, the contracts provide for revisions of the relative parameters to take place within the subsequent 12 months.

Effective interest rate

As to the effective interest rate, for the categories where that parameter can be determined, such parameter refers to the original transaction net of the effect of any derivative hedging instruments. The disclosure, which is provided by class of financial asset and liability, has been determined, for purposes of calculating the weighted average, using the carrying amount adjusted by accruals, prepayments, deferrals and fair value adjustments: this is therefore the amortized cost, net of accruals and any changes in fair value, as a consequence of hedge accounting.

Total Financial liabilities

(million euros)	12/31/2021		12/31/2020	
	Adjusted carrying amount	Effective interest rate (%)	Adjusted carrying amount	Effective interest rate (%)
Bonds	15,475	3.56	14,877	3.70
Loans and other financial liabilities	11,380	3.01	13,112	2.91
Total	**26,855**	**3.33**	**27,989**	**3.33**

Total Financial assets

(million euros)	12/31/2021		12/31/2020	
	Adjusted carrying amount	Effective interest rate (%)	Adjusted carrying amount	Effective interest rate (%)
Cash & cash equivalents	3,558	—	1,765	—
Other receivables	2,833	2.82	802	0.98
Total	**6,391**	**1.25**	**2,567**	**0.31**

As for financial assets, the weighted average effective interest rate is not essentially influenced by the existence of derivatives.

As for market risk management using derivatives, reference should be made to the Note "Derivatives".

Credit risk

Credit risk represents TIM's exposure to possible losses arising from the failure of commercial or financial counterparties to fulfill their obligations. To measure this risk over time for impairment of financial assets (trade receivables due from customers included), the introduction of IFRS 9 required switching from the incurred loss model pursuant to IAS 39 to the expected credit loss model.

Such risk stems principally from economic and financial factors, or from the possibility that a default situation of a counterparty could arise, or from more strictly technical, commercial or administrative factors.

TIM's maximum theoretical exposure to credit risk is represented by the carrying amount of the financial assets and trade receivables recorded in the financial statements, excluding guarantees received, described in the Note "Contingent liabilities, other information, commitments and guarantees".

Risk related to trade receivables is managed using customer scoring and analysis systems. For specific categories of trade receivables, the Group also makes use of factoring, mainly on a "non-recourse" basis.

In referring to the details indicated in the Note "Trade and miscellaneous receivables and other current assets", it should be pointed out that the provision for bad debts is raised on specific credit positions that present peculiar risk elements. On credit positions that do not have such characteristics, provision are raised by customer segment according to the average uncollectibility estimated on the basis of statistical indicators.

Financial assets other than trade receivables are written down for impairment on the basis of a general model which recognizes expected credit losses over the following 12 months, or over the residual life of the asset in the event of a substantial worsening of its credit risk. The expected credit loss is calculated based on the default probability and the percentage of credit that cannot be recovered in the event of a default (the loss given default).

The model adopted to calculate the expected credit loss is based on the Bloomberg Credit Risk Model, a model developed by Bloomberg which, starting from Merton's distance-to-default ("DD") concept, estimates the probability of default together with the recovery rate. At the same time, the loss given default is defined as the non-recoverable component of the post-default financial asset.

In particular, the DD - based on balance sheet data - is enriched with a series of additional information by country (macroeconomic, risk), business sector and individual company, as well as accounting adjustments aimed at ensuring uniformity of the model's outputs; finally, through a non-linear function of the DD, the default probability is obtained.

As regards the current COVID-19 pandemic, use of the Bloomberg Credit Risk Model, which, as mentioned, also takes into account the political and economic situation of the various countries in the short and medium/long-term (from 3 months to 5 years), ensures that all risk components are adequately reflected in the measurement of the credit risk.

In order to improve credit risk and reduce pressure on working capital, in February 2020, the corporate joint venture TIM-SCB JV S.p.A. was established, with an investment of 51% by Santander Consumer Bank (SCB) and 49% by TIM. The partnership with SCB aims to develop and distribute financial products to finance the purchase by TIM customers of products relative to the world of telecommunications and the transfer without recourse of trade receivables.

On November 3, 2020, the new corporate entity received authorization from the Bank of Italy to grant loans to the public in accordance with Article 106 et seq. of the Consolidated Banking Act (TUB). In the last few months of 2020 and early 2021, various corporate steps were completed, including the change in the company name from TIM-SCB JV S.p.A. to TIMFin S.p.A..

TIMFin started operating on February 1, 2021 and over the following months progressively expanded its areas of operation, completing coverage of the TIM physical sales points at the service of consumer customers.

Moreover, again for the credit risk relating to the asset components which contribute to the determination of Net financial debt it should be noted that, as per Group policy, the management of the liquidity of TIM S.p.A. is guided by conservative criteria and is principally based on money market management. As part of this management, investments are made during the year with temporary excess cash resources, which are expected to turn around within the subsequent 12-month period.

In order to limit the risk of non-fulfillment of the obligations undertaken by the counterparty, deposits were made with banking and financial institutions with a rating no lower than investment grade and non-negative outlook. Moreover, the terms of deposits are shorter than three months.

As concerns the credit risk relating to the current asset components and with particular reference to the trade receivables, the risk is managed on two levels:

- operational management along the entire process chain, starting from the checks during acquisition and continuing to the internal management checks of still active customers and the subsequent service interruption stages, contractual termination and assignment to specific institutions specialized in credit collection;
- management of specific securitization programs rather than of non-recurring disposals, most of which non-recourse in nature.

Liquidity risk

TIM S.p.A. pursues the Group’s objective of achieving an adequate level of financial flexibility.

Current financial assets at December 31, 2021, together with unused committed bank lines, ensure complete coverage of debt repayment obligations for the next 18 months.

At December 31, 2021, the liquidity margin available for TIM S.p.A. is 7,558 million euros, with a decrease of 908 million euros compared with end 2020 (8,466 million euros). The impact of the COVID-19 pandemic has not entailed any liquidity risk. Moreover, on January 18, 2021, TIM S.p.A. issued its first 8-year Sustainability Bond for an amount of 1 billion euros, coupon 1.625%.

18% of gross financial debt at December 31, 2021 (nominal repayment amount) will become due in the next 12 months.

The following tables report the contractual cash flows, not discounted to present value, relating to gross financial debt at nominal repayment amounts and the interest flows, determined using the terms and the interest and exchange rates in place at December 31, 2021. The portions of principal and interest of the hedged liabilities included both the disbursements and the receipts of the relative hedging derivatives.

Financial liabilities – Maturities of contractually expected disbursements

(million euros)		maturing by 12/31 of the year: 2022	2023	2024	2025	2026	After 2026	Total
Bonds	Principal	3,098	2,446	3,324	2,000	1,750	2,920	15,538
	Interest portion	486	428	309	196	139	1,098	2,656
Loans and other financial liabilities (*)	Principal	889	1,294	784	1,053	52	3,643	7,715
	Interest portion	234	230	247	260	255	2,209	3,435
Liabilities for lease contracts	Principal	402	344	368	356	347	1,329	3,146
	Interest portion	121	108	94	79	64	186	652
Non-current financial liabilities(*)	**Principal**	**4,389**	**4,084**	**4,476**	**3,409**	**2,149**	**7,892**	**26,399**
	Interest portion	**841**	**766**	**650**	**535**	**458**	**3,493**	**6,743**
Current financial liabilities(**)	**Principal**	**616**	**—**	**—**	**—**	**—**	**—**	**616**
	Interest portion	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Total Financial liabilities	**Principal**	**5,005**	**4,084**	**4,476**	**3,409**	**2,149**	**7,892**	**27,015**
	Interest portion	**841**	**766**	**650**	**535**	**458**	**3,493**	**6,743**

(*) These include hedging derivatives, but exclude non-hedging derivatives.
(**)These exclude non-hedging derivatives.

Derivatives on financial liabilities – Contractually expected interest flows

(million euros)	maturing by 12/31 of the year: 2022	2023	2024	2025	2026	After 2026	Total
Disbursements	179	173	121	97	97	765	1,432
Receipts	(125)	(115)	(41)	—	—	—	(281)
Hedging derivatives – net (receipts) disbursements	**54**	**58**	**80**	**97**	**97**	**765**	**1,151**
Disbursements	268	269	270	268	268	2,456	3,799
Receipts	(268)	(269)	(270)	(268)	(268)	(2,456)	(3,799)
Non-Hedging derivatives – net (receipts) disbursements	—	—	—	—	—	—	—
Total net disbursements (receipts)	**54**	**58**	**80**	**97**	**97**	**765**	**1,151**

In order to name the Parent as the sole counterparty of the banking system, all the derivatives of the Group, except for those relating to two banking counterparties, have been centralized under TIM S.p.A.. In the TIM S.p.A. separate financial statements, this centralization has resulted in the presence of two non-hedging derivatives for each centralized transaction (one with the bank and the other for the same amount and opposite sign with the company of the Group), while the hedging relationship remains with the subsidiary and the Group.

The flows relating to the non-hedging derivatives that were placed under centralized management have therefore been excluded both from the analysis by maturity of contractually expected disbursements for financial liabilities and from the analysis by maturity of contractually expected interest flows for derivatives, because the positions are fully netted with one another and, consequently, are not significant for the analysis of liquidity risk.

Market value of derivatives

In order to determine the fair value of derivatives, the TIM Group uses various valuation models. The mark-to-market calculation is determined by discounting to present value the interest and notional future contractual flows using market interest rates and exchange rates.

The notional amount of IRS does not represent the amount exchanged between the parties and therefore does not constitute a measurement of credit risk exposure which, instead, is limited to the amount of the differential between the interest rates paid/received. The market value of CCIRSs, instead, also depends on the differential between the reference exchange rate at the date of signing the contract and the exchange rate at the date of measurement, since CCIRSs imply the exchange of the reference interest and principal, in the respective currencies of denomination.

The options are measured according to the Black & Scholes or Binomial models and involve the use of various measurements factors, such as: time horizon of the life of the option, risk-free rate of return, current price, volatility and any cash flows (e.g. dividends) of the underlying instrument, and exercise price.

NOTE 17
DERIVATIVES

Derivative financial instruments are used by TIM S.p.A. to hedge its exposure to foreign exchange rate and interest rate risks and also to diversify the parameters of debt so that costs and volatility can be reduced to within predetermined operational limits.

Derivative financial instruments at December 31, 2021 are principally used to manage debt positions. They include interest rate swaps (IRS) to reduce interest rate exposure on fixed-rate and variable-rate bank loans and bonds, as well as cross currency and interest rate swaps (CCIRS), and currency forwards to convert the loans/receivables secured in different foreign currencies to the functional currency.

IRS transactions, at specified maturity dates, provide for the exchange of flows of interest with the counterparties, calculated on the notional amount, at the agreed fixed or variable rates.

The same also applies to CCIRS transactions which, in addition to the settlement of periodic interest flows, may provide for the exchange of principal, in the respective currencies of denomination, at maturity and possibly spot.

In carrying out its role as the Treasury function of the Group and with the aim of centralizing all exposures with banking counterparties in just one entity (i.e. TIM S.p.A. pooling), TIM has derivative contracts signed with banks and mirror intercompany derivative contracts with Telecom Italia Capital S.A. and Telecom Italia Finance S.A., for a notional value of 4,283 million euros. The balance of asset and liability measurements of these contracts is equal to zero.

Hedging: economic relationship between underlying instrument and derivatives

The hedge relationships documented in hedge accounting at TIM S.p.A. belong to four categories: i) hedging of the fair value of bond issues denominated in euro and ii) hedging of the cash flows coming from the coupon flow of bond issues denominated in currencies other than euro, iii) hedging of the cash flows coming from the flow of floating interest on intercompany loans denominated in euro, iv) hedging of the cash flows coming from the flow of floating interest on intercompany loans denominated in foreign currency.

In the first case, the hedged risk is the fair value of the bond attributable to the interest rates and the hedging derivatives are IRSs, which allow all or part of the bond coupon flow to be received against a flow of floating interest.

The current value of both instruments, underlying and derivatives, depends on the structure of the Euro market interest rates at the foundation of the calculation of the discount factors and flows of floating interest of the derivative. In particular, oscillating rates will translate as changes in the discount factor of the fixed interest expense on the underlying; on the derivative, changes in the discount factor of interest income will occur, as well as changes in the nominal flow of variable interest (only partially corrected by the discounting effect). The effects induced on the derivative are opposite, in accounting terms, to the effects on the underlying instrument.

In the second case, the hedged risk is represented by the variability in cash flows (and the repayment of the nominal amount) generated by exchange rates; hedging comprises combinations of IRS and CCIRS that synthetically transform fixed rate foreign currency income flows into fixed rate euro flows. In this case, exchange rate fluctuations will usually produce contrary effects on the underlying asset and on the derivative, as the asset leg of the latter faithfully reflects the underlying asset, while the liability leg is denominated in euro and is therefore insensitive to the exchange rate.

In the third case, the hedged risk is the variability of the cash flow against the performance of Euro market interest rates. The hedging is done with IRSs, which allow a variable flow of interest to be collected against the payment of a fixed rate interest flow. The current value of the underlying asset and derivatives depends on the structure of the Euro market interest rates. The fluctuations of rates generate an impact on the nominal amount of the flow of floating rate interest of the loan (only partially corrected by the discounting effect); on the derivative, there are changes in the discount factors of the flow of fixed interest expense and changes in the nominal flow of floating interest income (only partially corrected by the discounting effect). The effects induced on the derivative are of a single and contrary nature with respect to those on the underlying asset.

In the fourth case, the hedged risk is the variability of cash flows (including the nominal amount to be repaid) induced by the exchange rate in addition to the market interest rates in foreign currency; the hedging consists of IRS and CCIRS derivatives which turn the floating rate in foreign currency into a Euro fixed rate. In this case, exchange rate fluctuations (in addition to fluctuations in the interest rates in foreign currency) will produce physiologically opposite effects on the underlying asset and on the derivative, because the asset leg of the latter faithfully reflects the underlying asset, while the liability leg is denominated in euros and is therefore insensitive to the exchange rate (and to the interest rates in foreign currency). The impacts caused, on the other hand, by the Euro interest rates on the liability leg of the derivative are restricted to just discounting.

There is a final case of commercial forecast transaction coverage denominated in a currency other than the euro; the risk hedged is always ascribed to the variability of the cash flow linked to exchange rates, but the hedge is assured through an active deposit denominated in the same currency as the items hedged. Write-backs/write-downs of the deposit in foreign currency generated by oscillations in the exchange rate are structurally the same and opposite to the impacts produced on the underlying items.

Hedges: determination of the hedge ratio

The types of hedging implemented by the Group require the adoption of a hedge ratio equal to 1:1, as the types of risk hedged (interest rate and exchange rate risks) are such as to generate economic effects in the underlying instruments that can only be offset by the same notional quantities of derivative instruments.

Hedges: potential sources of ineffectiveness

The contractualization of derivatives to hedge financial risks takes place at arm's length and aims to completely neutralize the effects produced by such instruments.

However, in practice, both fair value hedges and cash flows hedges, although financially perfect, cannot guarantee absolute effectiveness due to the many banks involved, the particular nature of some derivatives attributable to fixing and/or the indexing of variable parameters, and the possible imperfect correspondence of critical terms.

The first table indicates total financial derivatives of TIM S.p.A. at December 31, 2021 and 2020; in compliance with standard IFRS 7, notional amounts are shown with reference to all the derivative instruments involved in the hedges.

The following tables break down financial derivatives by type of risk for each kind of hedging, separating financial assets and liabilities. For CCIRS, the notional amount refers to the contractual value in euros, for IRS in a currency other than the euro, the value is indicated at the market exchange rate.

Type	Hedged risk	Notional amount at 12/31/2021 (million euros)	Notional amount at 12/31/2020 (million euros)	Spot Mark-to-Market (*) (Clean Price) at 12/31/2021 (million euros)	Spot Mark-to-Market (*) (Clean Price) at 12/31/2020 (million euros)
Interest rate swaps	Interest rate risk	300	4,334	3	192
Cross Currency and Interest Rate Swaps (CCIRS)	Interest rate risk and currency exchange rate risk	—	—	—	—
Total Fair Value Hedge Derivatives		**300**	**4,334**	**3**	**192**
Interest rate swaps	Interest rate risk	2,206	2,177	(732)	(935)
Cross Currency and Interest Rate Swaps (CCIRS)	Interest rate risk and currency exchange rate risk	2,673	2,673	(291)	(614)
Total Cash Flow Hedge Derivatives		**4,879**	**4,850**	**(1,023)**	**(1,549)**
Total Non-Hedge Accounting Derivatives		**1,834**	**—**	**3**	**—**
Total TIM derivatives		**7,013**	**9,184**	**(1,017)**	**(1,357)**

(*) Spot Mark-to-market above represents the market measurement of the derivative net of the accrued portion of the flow in progress.

The positions in non hedge accounting derivatives also include IRS Euros for a total notional amount of 1,834 million euros; specifically, these are fair value hedges of bond loans in euros, issued by TIM S.p.A., which transform the fixed-rate coupon into a variable-rate one. The hedges - classified and booked as fair value hedges starting 2013 - have been retroactively discontinued from June 30, 2021 due to the failure of the prospective efficiency tests carried out at December 31, 2021. The test was failed due to the procedure used for fixing in arrears the variable rate benchmark of the derivatives - defined by contract - which can generate misalignments of fair value between the derivative and the underlying bond loan in the prospective volatility risk reduction test in the approach to the maturity date of the hedge.

It is specified that, although formally classified as non-hedge, these derivatives substantively continue to guarantee the desired profile of financial expenses in connection with the related bonds.

In this same item, the following are also noted: the value - equal to a fair value of 15 million euros (liabilities) - of the rights envisaged in the Transaction Agreement in the favor of Teemo Bidco Sarl, as minority shareholder, under the scope of the FiberCop transaction.

Fair value hedges (million euros)	**Accounting item**		**Notional value**	**Carrying amount**	**Change in fair value for the year**
Interest rate swaps	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets.	a)	**300**	**3**	**(190)**
Assets				3	
Liabilities				—	
Cross Currency and Interest Rate Swaps (CCIRS)	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets.	b)	**—**	**—**	**—**
Assets				—	
Liabilities				—	
Derivative instruments (spot value)		a)+b)	**300**	**3**	**(190)**
Accruals				1	
Derivative instruments (gross value)				**4**	
Underlying instruments (1)	Bonds - Current/non-current liabilities		**300**	**(303)**	
of which fair value adjustment	Fair value adjustment and measurements at amortized cost	c)		(3)	183
Ineffectiveness [2]		a)+b)+c)			(4)
Fair value adjustment for hedging settled in advance (3)				(190)	

(1) Includes the amortized cost value of bonds currently hedged plus the fair value adjustment.
(2) Also considers the year's change in derivatives and underlyings belonging to hedges closed early and discontinued in 2021.
(3) Referred to bonds no longer hedged, therefore not presented in the table.

Cash flow hedges (million euros)	Accounting item		Notional value	Carrying amount	Change in fair value	Change in cumulative fair value
Interest rate swaps	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets.	a)	**2,206**	**(731)**	**204**	
Assets				24	(24)	
Liabilities				(755)	228	
Cross Currency and Interest Rate Swaps (CCIRS)	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets.	b)	**2,673**	**(291)**	**323**	
Assets				291	75	
Liabilities				(582)	248	
Derivative instruments (spot value)		**a)+b)**	**4,879**	**(1,022)**	**527**	
Accruals				18		
Derivative instruments (gross value)				**(1,004)**		
of which equity reserve gains and losses					748	
Determination of ineffectiveness						
Change in derivatives		c)				(793)
Underlying instruments (4)		d)				792
Ineffectiveness (5)	Positive fair value adjustment of financial derivatives - non-hedging	c)+d)				(16)
Equity reserve						
Equity reserve balance				(1,244)		
of which due to the fair value of hedging settled in advance				24		
Reclassification to P&L	Negative reversal of the reserve for the fair value adjustment of hedging derivatives (cash flow hedges)				1	

(4) Hypothetical derivatives used in measuring the effectiveness of cash flow hedges.
(5) The ineffectiveness, due to its nature and calculation, does not necessarily coincide with the difference in cumulative changes in the fair value of derivatives and the underlying instrument; the effect due to the adoption of CVA/DVA is not considered.

As regards hedging of the forecast transaction - reflected only in the numbers of the equity reserve in the table above - these are future commercial flows for 106 million USD, to be paid in 7 years, hedged by a deposit denominated in the same currency and amount, renewed every three months.

The transactions hedged by cash flow hedges will generate cash flows and produce economic effects in the income statement in the periods indicated in the following table:

Denomination currency	Notional amount in denomination currency (millions)	Start of period	End of period	Rate applied	Interest period	Hedging of notional amount in euro (millions)	Hedging of rate in euro
GBP	375	Jan-22	May-23	5.875%	Annually	552	5.535%
YEN	20,000	Jan-22	Oct-29	6 month JPY Libor +	Semiannuall	174	5.940%
USD	1,000	Jan-22	Nov-33	3 month USD Libor + 0.756%	Quarterly	849	5.994%
USD	1,500	Jan-22	May-24	5.303%	Semiannuall	1,099	4.226%
EUR	794	Jan-22	Sept-34	6 month Euribor + 0.8787%	Semiannuall	794	4.332%
EUR	791	Jan-22	July-36	6 month Euribor +	Semiannuall	791	5.884%

(*) Financial asset.

The method selected to test the effectiveness retrospectively and, whenever the principal terms do not fully coincide, prospectively, for Cash Flow Hedge derivatives, is the Volatility Risk Reduction (VRR) Test. This test assesses the ratio between the portfolio risk (meaning the derivative and the item hedged) and the risk of the hedged item taken individually. In essence, the portfolio risk must be significantly lower than the risk of the hedged item.

NOTE 18

SUPPLEMENTARY DISCLOSURES ON FINANCIAL INSTRUMENTS

Measurement at fair value

For the purposes of the comparative information between the carrying amounts and fair value of financial instruments, required by IFRS 7, the majority of the non-current financial liabilities of TIM consist of bonds, whose fair value is directly observable in the financial markets, as they are financial instruments that due to their size and diffusion among investors, are commonly traded on the relevant markets (see the Note "Non-current and current financial liabilities"). For other types of financing, however, the following assumptions have been made in determining fair value:

- for variable-rate loans, the nominal repayment amount has been assumed;
- for fixed-rate loans: fair value has been assumed to be the present value of future cash flows using market interest rates at December 31, 2021.

Lastly, for the majority of financial assets, their carrying amount is a reasonable approximation of their fair value, since these are short-term investments that are readily convertible into cash.

The fair value measurement of the financial instruments of TIM is classified according to the three levels set out in IFRS 7. In particular, the fair value hierarchy introduces the following levels of input:

- Level 1: quoted prices in active markets;
- Level 2: prices calculated using observable market inputs;
- Level 3: prices calculated using inputs that are not based on observable market data.

The following tables contain, for assets and liabilities at December 31, 2021 and December 31, 2020 and in accordance with the categories established by IFRS 9, the supplementary disclosures on financial instruments required by IFRS 7 and the schedules of gains and losses.

Key for IFRS 9 categories

	Acronym
Financial assets measured at:	
Amortized cost	AC
Fair value through other comprehensive income	FVTOCI
Fair value through profit or loss	FVTPL
Financial liabilities measured at:	
Amortized cost	AC
Fair value through profit or loss	FVTPL
Hedging Derivatives	HD
Not applicable	n.a.

Carrying amount and fair value hierarchy for each category/class of financial asset/liability and comparison with their fair value at 12/31/2021

(million euros)	Categories IFRS 9	notes	Carrying amount at 12/31/2021	Amounts recognized in financial statements: Amortized cost	Amounts recognized in financial statements: Fair Value recognized in the statements of comprehensive income	Amounts recognized in financial statements: Fair Value recognized in the separate income statements	Levels of hierarchy or of fair value: Level 1	Levels of hierarchy or of fair value: Level 2	Levels of hierarchy or of fair value: Level 3	Values recognized in the Financial statements as per IFRS 16	Fair Value at 12/31/2021
ASSETS											
Financial assets measured at amortized cost	AC		**9,027**	**9,027**	**—**	**—**					**9,027**
Non-current assets											
Receivables from employees		8)	36	36							
Other financial receivables		8)	2,731	2,731							
Miscellaneous receivables from others (non-current)		9)	21	21							
Current assets											
Receivables from employees		8)	11	11							
Other short-term financial receivables		8)	12	12							
Cash and cash equivalents		8)	3,558	3,558							
Trade receivables		12)	2,564	2,564							
Miscellaneous receivables from others (current)		12)	77	77							
Contract assets		12)	17	17							
Financial assets measured at fair value through other comprehensive income	FVTOCI		**35**	**—**	**35**	**—**					**35**
Non-current assets											
Other investments		7)	*35*		*35*		*22*		*13*		
Securities other than investments		8)									
Current assets											
Trade receivables		12)	—		—						
Securities other than investments		8)	—		—		—				
Financial assets measured at fair value through profit or loss	FVTPL		**1,373**	**—**	**—**	**1,373**					**1,373**
Non-current assets											
Non-hedging derivatives		8)	*1,305*			*1,305*		*1,305*			
Current assets											
Securities other than investments		8)									
Non-hedging derivatives		8)	68			*68*		*68*			
Hedging Derivatives	HD		**391**	**—**	**387**	**4**					**391**
Non-current assets											
Hedging Derivatives		8)	*366*		*363*	*3*		*366*			
Current assets											
Hedging Derivatives		8)	*25*		*24*	*1*		*25*			
Financial receivables for lease contracts	n.a.		**50**	**—**	**—**	**—**				**50**	**50**
Non-current assets		8)	*11*							*11*	
Current assets		8)	*39*							*39*	
Total			**10,876**	**9,027**	**422**	**1,377**	**22**	**1,764**	**13**	**50**	**10,876**

The financial instruments belonging to hierarchy level 3 of fair value are represented by the following Other investments recognized as Non-current assets, for which directly or indirectly observable prices on the market are not available: Banca UBAE; Istituto Europeo di Oncologia; Istituto Enciclopedia Italiana G. Treccani and other more minor.

These equity investments were measured on the basis of an analysis, deemed reliable, of their significant assets and liabilities.

In 2020, there were no effects on the income statement deriving from the measurement of financial instruments at fair-value hierarchy level 3.

The profit/(loss) recognized in Other components of the Statements of Comprehensive Income were recognized within the scope of the Reserve for financial assets measured at fair value through other comprehensive income.

				Amounts recognized in financial statements			Levels of hierarchy or of fair value				
(millions of euros)	Categories IFRS 9	notes	Carrying amount at 12/31/2021	Cost amortized	Fair value recognized in the statements of comprehensive income	Fair Value recognized in the separate income statements	Level 1	Level 2	Level 3	Values recognized in the financial statements as per IFRS 16	Fair Value at 12/31/2021
LIABILITIES											
Financial liabilities measured at amortized cost	AC/HD		**30,298**	**30,298**							**30,960**
Non-current liabilities											
Non-current financial payables		14)	*19,237*	*19,237*							
Current liabilities											
Current financial payables		14)	*4,939*	*4,939*							
Trade and miscellaneous payables and other current liabilities		22)	*6,015*	*6,015*							
Contract liabilities		22)	*107*	*107*							
Financial liabilities measured at fair value through profit or loss	FVTPL		**1,355**			**1,355**					**1,355**
Non-current liabilities											
Non-hedging derivatives		14)	*1,303*			*1,303*		*1,288*	*15*		
Current liabilities											
Non-hedging derivatives		14)	52			52		52			
Hedging Derivatives	HD		**1,391**		**1,391**	**—**					**1,391**
Non-current liabilities											
Hedging Derivatives		14)	*1,337*		*1,337*			*1,337*			
Current liabilities											
Hedging Derivatives		14)	54		54			54			
Liabilities for lease contracts	n.a.		**3,177**							**3,177**	**3,975**
Non-current liabilities		14)	*2,743*							*2,743*	
Current liabilities		14)	434							434	
Total			**36,221**	**30,298**	**1,391**	**1,355**	**—**	**2,731**	**15**	**3,177**	**37,681**

Note that financial liabilities include a financial instrument for an amount of 15 million euros, belonging to hierarchy level 3 of fair value, for which directly or indirectly observable prices on the market are not available. This financial liability refers to the rights envisaged in the Transaction Agreement in the favor of Teemo Bidco Sarl, as minority shareholder, under the scope of the FiberCop transaction.

The measurement of the economic value of the financial liability has been taken using a valuation model defined internally by TIM. Through an econometric approach, the correlation has been first estimated between the targets set at a national level and a series of macro economic and social-demographic variables. Then taking into account the uncertainty as to how these variables will evolve and the market share of FiberCop, through Monte Carlo simulation, a series of possible developments of the phenomenon was calculated and the expected value of the financial liability, determined.

Carrying amount and fair value hierarchy for each category/class of financial asset/liability and comparison with their fair value at 12/31/2020

				Amounts recognized in financial statements			Levels of hierarchy or of fair value				
(million euros)	Categories IFRS 9	notes	Carrying amount in financial statements at 12/31/2020	Amortized cost	Fair Value recognized in the statements of comprehensive income	Fair Value recognized in the separate income statements	Level 1	Level 2	Level 3	Values recognized in the financial statements as per IFRS 16	Fair Value at 12/31/2020
ASSETS											
Financial assets measured at amortized cost	AC		**4,954**	**4,954**	**—**	**—**					**4,954**
Non-current assets											
Receivables from employees		8)	*38*	*38*							
Other financial receivables		8)	*713*	*713*							
Miscellaneous receivables from others (non-current)		9)	*16*	*16*							
Current assets											
Receivables from employees		8)	*12*	*12*							
Other short-term financial receivables		8)	*3*	*3*							
Cash and cash equivalents		8)	*1,766*	*1,766*							
Trade receivables		12)	*2,305*	*2,305*							
Miscellaneous receivables from others (current)		12)	*78*	*78*							
Contract assets		12)	*23*	*23*							
Financial assets measured at fair value through other comprehensive income	FVTOCI		**30**	**—**	**30**	**—**					**30**
Non-current assets											
Other investments		7)	*30*		*30*		*16*	*—*	*14*		
Securities other than investments		8)									
Current assets											
Trade receivables		12)	*—*		*—*						
Securities other than investments		8)	*—*		*—*		*—*				
Financial assets measured at fair value through profit or loss	FVTPL		**1,288**	**—**	**—**	**1,288**					**1,288**
Non-current assets											
Non-hedging derivatives		8)	*1,239*			*1,239*		*1,239*			
Current assets											
Securities other than investments		8)									
Non-hedging derivatives		8)	*49*			*49*		*49*			
Hedging Derivatives	HD		**546**	**—**	**331**	**215**					**546**
Non-current assets											
Hedging Derivatives		8)	*500*		*308*	*192*		*500*			
Current assets											
Hedging Derivatives		8)	*46*		*23*	*23*		*46*			
Financial receivables for lease contracts	n.a.		**61**	**—**	**—**	**—**				**61**	**61**
Non-current assets		8)	*17*							*17*	
Current assets		8)	*44*							*44*	
Total			**6,879**	**4,954**	**361**	**1,503**	**16**	**1,834**	**14**	**61**	**6,879**

(millions of euros)	Categories IFRS 9	notes	Carrying amount in financial statements at 12/31/2020	Amounts recognized in financial statements: Amortized cost	Fair value recognized in the statements of comprehensive income	Fair Value taken to separate income statements	Levels of hierarchy or of fair value: Level 1	Level 2	Carrying amount under IFRS 16	Fair Value at 12/31/2020
LIABILITIES										
Financial liabilities measured at amortized cost	AC/HD		**28,386**	**28,386**						**25,569**
Non-current liabilities										
Non-current financial payables		14)	*21,388*	*21,388*						
Current liabilities										
Current financial payables		14)	*3,240*	*3,240*						
Trade and miscellaneous payables and other current liabilities		22)	*3,641*	*3,641*						
Contract liabilities		22)	*117*	*117*						
Financial liabilities measured at fair value through profit or loss	FVTPL		**1,288**			**1,288**				**1,288**
Non-current liabilities										
Non-hedging derivatives		14)	*1,239*			*1,239*		*1,239*		
Current liabilities										
Non-hedging derivatives		14)	*49*			*49*		*49*		
Hedging Derivatives	HD		**1,866**		**1,866**	**—**				**1,866**
Non-current liabilities										
Hedging Derivatives		14)	*1,813*		*1,813*			*1,813*		
Current liabilities										
Hedging Derivatives		14)	*53*		*53*			*53*		
Liabilities for lease contracts	n.a.		**3,969**						**3,969**	**4,240**
Non-current liabilities		14)	*3,506*						*3,506*	
Current liabilities		14)	*463*						*463*	
Total			**35,509**	**28,386**	**1,866**	**1,288**	**—**	**3,154**	**3,969**	**32,963**

Gains and losses by IFRS 9 categories - Year 2021

(million euros)	IFRS 9 categories	Net gains/(losses) 2021	of which interest
Assets measured at amortized cost	AC	(129)	103
Assets and liabilities measured at fair value through profit or loss	FVTPL	(10)	—
Assets and liabilities measured at fair value recognized in the statements of comprehensive income	FVTOCI	1	—
Financial Liabilities at Amortized Cost	AC	(769)	(683)
Total		**(907)**	**(580)**

Gains and losses by IFRS 9 categories - Year 2020

(million euros)	IFRS 9 categories	Net gains/(losses) 2020	of which interest
Assets measured at amortized cost	AC	(354)	12
Assets and liabilities measured at fair value through profit or loss	FVTPL	88	—
Assets and liabilities measured at fair value recognized in the statements of comprehensive income	FVTOCI	—	—
Financial Liabilities at Amortized Cost	AC	(766)	729
Total		**(1,032)**	**741**

NOTE 19
PROVISIONS FOR EMPLOYEE BENEFITS

The item decreased by 74 million euros compared to December 31, 2020 The breakdown and movements are as follows:

(million euros)	12/31/2019	Increase/ Discounting	Decrease	12/31/2020
Provision for employee severance indemnities	**805**	(1)	(128)	**676**
Provision for termination benefit incentives and corporate restructuring	**541**	30	(532)	**39**
Total	**1,346**	**29**	**(660)**	**715**
of which:	**1,346**			**715**
non-current portion	*1,106*			*676*
current portion (*)	*240*			*39*

(*) The current portion refers to the Provision for termination benefit incentives and corporate restructuring.

(million euros)	12/31/2020	Increase/ Discounting	Decrease	12/31/2021
Provision for employee severance indemnities	**676**	18	(53)	**641**
Provision for termination benefit incentives and corporate restructuring	**39**	—	(39)	**—**
Total	**715**	**18**	**(92)**	**641**
of which:				
non-current portion	*676*			*641*
current portion (*)	*39*			*—*

(*) The current portion refers to the Provision for termination benefit incentives and corporate restructuring.

The **Provision for employee severance indemnities** is down 35 million euros on December 31, 2020.

"Increases/ Present value" totaled 18 million euros and break down as follows

(million euros)	2021	2020
(Positive)/negative effect of curtailment	—	(1)
Finance expenses	4	6
Net actuarial (gains) losses recognized during the year	14	(6)
Total expenses (income)	**18**	**(1)**
Effective return on plan assets	there are no assets servicing the plan	

The net actuarial losses recognized at December 31, 2021 amounted to 14 million euros (net actuarial gains of 6 million euros in 2020), and are essentially connected with the inflation rate forecast, which went from 0.8% at December 31, 2020 to 1.75% at December 31, 2021; the discount rate also increased, going from the 0.34% used at December 31, 2020 to 0.98% at December 31, 2021.

According to Italian law, the amount to which each employee is entitled depends on the period of service and must be paid when the employee leaves the company. The amount of severance indemnity due upon termination of employment is calculated on the basis of the period of employment and the taxable compensation of each employee. This liability is adjusted annually based on the official cost-of-living index and legally-set interest. The liability is not associated with any vesting condition or period or any funding obligation; accordingly, there are no assets servicing the provision. The liability is recognized net of the partial prepayments of the provision and payments of the amounts obtained by employees for the reasons permitted by the applicable regulations.
In accordance with IAS 19, this provision has been recognized as a "Defined benefit plan", for the amounts due up to December 31, 2021.
Under the regulations introduced by Italian Legislative Decree 252/2005 and Law 296/2006 (the State Budget Law 2007), the severance indemnities accruing from 2008 are assigned to either the INPS Treasury Fund or to supplementary pension funds and take the form of a "Defined contribution plan". However, revaluations of the provision for the employee severance indemnities at December 31, 2006, made on the basis of the official cost-of-living index and legally-prescribed interest, are retained in the provision for employee severance indemnities.
In application of IAS 19, the employee severance indemnities have been calculated using the "Projected Unit Credit Method" according to which:

- the future possible benefits which could be paid to each employee registered in the program in the event of retirement, death, disability, resignation etc. have been projected on the basis of a series of financial assumptions (cost-of-living increases, interest rate, increase in compensation etc.);

- the average present value of future benefits has been calculated, at the measurement date, on the basis of the annual interest rate adopted and of the probability that each benefit actually has to be paid;
- the liability has been calculated as the average present value of future benefits that will be generated by the existing provision at the measurement date, without considering any future accruals.

The following assumptions have been made:

FINANCIAL ASSUMPTIONS	Executives	Non-executives
Inflation rate	**1.75% per annum**	**1.75% per annum**
Discount rate	**0.98% per annum**	**0.98% per annum**
Employee severance indemnities annual increase rate	**2.81% per annum**	**2.81% per annum**
Annual real wage growth:		
equal to or less than 40 years of age	1.0% per annum	1.0% per annum
over 40 but equal to or less than 55 years of age	0.5% per annum	0.5% per annum
over 55 years of age	0.0% per annum	0.0% per annum

DEMOGRAPHIC ASSUMPTIONS	Executives	Non-executives
Probability of death	RG mortality tables 48 published by Ragioneria Generale dello Stato	RG mortality tables 48 published by Ragioneria Generale dello Stato
Probability of disability	INPS tables divided by age and sex	INPS tables divided by age and sex
Probability of resignation:		
up to 40 years of age	2.00%	1.00%
From 41 to 50 years of age	2.00%	0.50%
From 51 to 59 years of age	1.00%	0.50%
From 60 to 64 years of age	None	0.50%
Aged 65 and over	None	None
Probability of retirement	100% on achievement of the AGO requirements aligned with D.L. 4/2019	
Probability of receiving at the beginning of the year an advance from the provision for severance indemnities accrued equal to 70%	1.5% per annum	1.5% per annum

The application of the above assumptions resulted in a liability for employee severance indemnities of 641 million euros at December 31, 2021 (676 million euros at December 31, 2020).

Reported below is a sensitivity analysis for each significant actuarial assumption adopted to calculate the liability as at year end, showing how the liability would have been affected by changes in the relevant actuarial assumptions that were reasonably possible at that date, stated in amounts. The weighted average duration of the obligation is 10 years.

CHANGES IN ASSUMPTIONS	Amounts (million euros)
Turnover rate:	
+ 0.25 p.p.	(2)
0.25 p.p.	2
Annual inflation rate:	
+ 0.25 p.p.	11
0.25 p.p.	(10)
Annual discount rate:	
+ 0.25 p.p.	14
0.25 p.p.	(15)

The **Provisions for incentive to take early retirement and company restructuring** reduce by a total of 39 million euros, zeroing during the period, as a result of outgoings and the reclassification to debt of the amounts not yet paid, relative to both plans already accrued during previous years and the portion entered as expense in 2021 (289 million euros) following application of the trade union agreements stipulated between the Company and the trade unions on March 8, 2021 and on April 23, 2021.

NOTE 20
PROVISIONS

This item increased by 212 million euros compared to December 31, 2020. The breakdown and movements are as follows:

(million euros)	12/31/2020	Increase	Taken to income	Used directly	Reclassifications/other changes	12/31/2021
Provision for taxation and tax risks	**2**	1	—	(1)	—	**2**
Provision for restoration costs	**268**	12		(3)	(128)	**149**
Provision for legal disputes	**666**	27		(341)	(2)	**350**
Provision for commercial risks	**25**	657	(3)	(6)	1	**674**
Provision for risks and charges on investments and corporate-related transactions	**28**	1	(4)		—	**25**
Other provisions	**1**	2		(1)		**2**
Total	**990**	**700**	**(7)**	**(352)**	**(129)**	**1,202**
of which:						
non-current portion	**618**					**633**
current portion	**372**					**569**

The non-current portion of provisions for risks and charges mainly relates to the provision for restoration costs and some of the provision for legal disputes. More specifically, in accordance with accounting standards, the total amount of the provision for restoration costs is calculated by re-measuring the amounts for which a probable outlay is envisaged, based on the estimated inflation rates for the individual due dates, and subsequently discounted to the reporting date based on the average cost of debt, taking into account cash outflow forecasts.

The **provision for taxation and tax risks** has not changed from December 31, 2020.

The **provision for restoration costs** related to the provision for restoration of leased real estate and sites used for mobile telephony and the dismantling of tangible assets (batteries, wooden poles). Decrease of 119 million euros compared to December 31, 2020, primarily due to the conferral of the share of the provision for the pole network fund to FiberCop.

The **provision for legal disputes** decreased by 316 million euros compared to December 31, 2020, mainly as a result of uses made in 2021 for settlements and legal agreements; it includes provisions for disputes with employees (46 million euros) and third-parties (304 million euros).

The **provision for commercial risks** increased by 649 million euros on December 31, 2020, mainly following the entry of Contractual Risk Provisions for Onerous Contracts (IAS 37) relative to contracts with certain counterparties for multimedia content offers. Further details are provided in the Note “Significant non-recurring events and transactions” of these Separate Financial Statements at December 31, 2021.

The **Provision for risks and charges on investments and corporate-related transactions** decreased by 3 million euros compared to December 31, 2020.

Other **provisions for risks and charges** increased by 1 million euros compared to December 31, 2020.

NOTE 21

MISCELLANEOUS PAYABLES AND OTHER NON-CURRENT LIABILITIES

Miscellaneous payables and other non-current liabilities consisted of the following at December 31, 2021:

(million euros)		12/31/2021	12/31/2020
Miscellaneous payables (non-current)			
Payables to social security agencies		437	480
Payables due to subsidiaries		5	4
Other payables to third parties		232	2,202
	(a)	674	2,686
Other non-current liabilities			
Deferred revenues from customer contracts (Contract liabilities)		85	104
Other deferred revenue and income		170	392
Capital grants		267	295
	(b)	522	791
Total	(a+b)	1,196	3,477

Miscellaneous payables (non-current)

This item decreased by 2,012 million euros compared to December 31, 2020 and mainly includes:

- **Payables to social security agencies** amounted to 437 million euros (480 million euros at December 31, 2020): related to the remaining amount due to the INPS for the application of the 2015 arrangements and those subsequently signed in 2018 and 2019, relating to Article 4 paragraphs 1-7ter, of Italian Law 92 of June 28, 2012 (see the Note "Employee benefits expenses" for more details).

Details are as follows:

(million euros)	12/31/2021	12/31/2020
Non-current payables		
Due from 2 to 5 years after the end of the reporting period	428	473
Due beyond 5 years after the end of the reporting period	9	7
	437	480
Current payables	248	290
Total	685	770

- **Payables to subsidiaries** amounted to 5 million euros (4 million euros at December 31, 2020): this item relates to the payables due for the adoption of the consolidated tax return in Italy;
- **Other payables to third parties** includes 232 million euros (2,202 million euros at December 31, 2020) relating for 231 million euros to the third installment of substitute tax to be paid in accordance with Decree Law 104/2020, Art. 110, paragraphs 8 and 8bis. This decreased by 1,970 million euros, mainly due to the reclassification to current payables of 1,738 million euros relating to the last installment to be paid by September 2022 and relating to the purchase - which took place in 2018 - of the rights-of-use for the frequencies in the 694-790 MHz, 3600-3800 MHz and 26.5-27.5 GHz bands, to be allocated on 5G mobile communication services.

Other non-current liabilities

The item, amounting to 522 million euros, fell by 269 million euros compared to December 31, 2020 and consisted of:

- **Deferred revenues from contracts with customers (contract liabilities)** of 85 million euros (104 million euros at December 31, 2020): the item is reversed to the income statement according to the duration of the contractual obligations between the parties, averaging 24 months; therefore, the balance as at December 31, 2021 will be reversed to the income statement generally by 2023. The item mainly includes:
  - deferred revenues on activation and installation of new contracts with customers of 4 million euros (8 million euros at December 31, 2020): in this regard, it is noted that under IFRS 15 activation/installment revenues are allocated to other contract obligations and recognized throughout the period of performance of the contract, as they do not relate to separate performance obligations;
  - deferred revenues for subscription charges of access to the network of 25 million euros;
  - deferred revenues for subscription charges and rent and maintenance payments of 42 million;
  - deferred revenues for outsourcing charges for 13 million euros.

- **Other deferred revenues and income**, amounting to 170 million euros (392 million euros at December 31, 2020): these refer to contract liabilities deriving from contracts for the sale of transmission capacity (operating asset leases);
- **Capital grants** of 267 million euros (295 million euros at December 31, 2020): the item represents the component still to be released to the income statement based on the remaining useful life (estimated at around 18 years) of the assets that the grants refer to and is mainly connected to the realization of the infrastructures on the ultrabroadband-UBB and broadband-BB projects.

NOTE 22

TRADE AND MISCELLANEOUS PAYABLES AND OTHER CURRENT LIABILITIES

Trade and miscellaneous payables and other current liabilities at December 31, 2021 consisted of the following:

(million euros)		12/31/2021	*of which Financial Instruments*	12/31/2020	*of which Financial Instruments*
Trade payables					
Payables to suppliers		3,012	*3,012*	2,687	*2,687*
Payables to other telecommunication operators		346	*346*	374	*374*
Payables due to subsidiaries		585	*585*	280	*280*
Payables to associates and joint ventures		177	*177*	102	*102*
Payables to other subsidiaries		39	*39*	35	*35*
	(a)	**4,159**	***4,159***	**3,478**	***3,478***
Miscellaneous payables					
Payables due to subsidiaries		92		42	
Payables to associates and joint ventures		—		—	
Payables to other related parties		21	—	61	—
Tax payables		74		109	
Payables to social security agencies		332		341	
Payables for employee compensation		121		118	
Other		1,953	*1,856*	260	*163*
Employee benefits (except for employee severance indemnities) for the current portion expected to be settled within 12 months		—		39	
Provisions for employee benefits (except for employee severance indemnities) for the current portion expected to be settled within 12 months		569		372	
	(b)	**3,162**	***1,856***	**1,342**	***163***
Other current liabilities					
Liabilities from customer contracts (Contract liabilities)		735	*107*	711	*117*
Other deferred revenue and income		29		58	
Other		26		21	
	(c)	**790**	***107***	**790**	***117***
Total	(a+b+c)	**8,111**	***6,122***	**5,610**	***3,758***

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

Trade payables

This item increased by 681 million euros compared to December 31, 2020, mainly as a result of the change in bills payable. On June 30, 2021, the purchase of the BT Italia Business Unit took effect, offering services to public administration customers and small and medium businesses/enterprises (SMB/SME). As a result of this transaction, TIM acquired 8 million euros in trade payables.

In particular, we report:

- trade payables to subsidiaries that amounted to 585 million euros: these relate to amounts due to FiberCop (304 million euros), Noovle S.p.A. (88 million euros), Telenergia (65 million euros), Telecom Italia Sparkle (42 million euros) for telecommunications services, TIM Retail (24 million euros), Olivetti (19 million euros), Telecontact (18 million euros), Telecom Italia Trust Technologies (10 million euros) and Telsy (11 million euros) for supply contracts;
- trade payables to associates that amounted to 177 million euros: relate to debt positions mainly due from INWIT S.p.A. (170 million euros), which has become an associate.
- trade payables to related parties that amounted to 39 million euros: relate mainly to amounts due to the Havas group.

Miscellaneous payables

These come to 3,162 million euros, up by 1,820 million euros on December 31, 2020, mainly due to the specified reclassification of the residual payable relating to the acquisition of rights to use 5G licenses (1,738 million euros) from Miscellaneous payables and other non-current liabilities, following the passing of the deadline envisaged in 2022.

TIM has also entered 22 million euros in miscellaneous payables relating to the purchase price of the BT Italia Business Unit took effect, offering services to Public Administration customers and small and medium businesses/enterprises (SMB/SME).

Miscellaneous payables mainly include:

- tax payables, amounting to 74 million euros: these mainly refer to VAT payable (2 million euros), withholding tax payable to the tax authorities as withholding agent (61 million euros) and government concession tax payable (5 million euros);
- payables to social security agencies: these include the short-term portion of the debt position towards INPS in relation to the application of the 2015 and subsequent agreements signed in 2018, 2019 and 2020, relating to Article 4, paragraphs 1-7ter, of Italian Law 92 of June 28, 2012, as described in the Note “Miscellaneous payables and other non-current liabilities”;
- payables to subsidiaries of 92 million euros: these mainly relate to payables to FiberCop (48 million euros), Noovle S.p.A. (18 million euros), Telenergia (6 million euros), Telecom Italia Sparkle (8 million euros) and Olivetti (6 million euros). These include 6 million euros for consolidated tax returns (mainly due to Telecom Italia Sparkle, Telecontact, Telenergia, TIM Retail and Olivetti);
- other payables mainly include the mentioned current portion of the residual payable for the acquisition of rights to use 5G licenses, in addition to payables for government and European Union grants;
- employee benefits and provisions.

Other current liabilities

These amount to 790 million euros and mainly include:

- **The liability arising from contracts with customers (contract liabilities)**, amounting to 735 million euros (711 million euros at December 31, 2020): The item shows the liabilities from customers linked to the Company’s obligations to transfer goods and services for which received a price. Liabilities with customers, generally with a maturity of up to 12 months, are shown below; therefore, the figure at December 31, 2021 will be substantially reversed by December 31, 2022. In particular:
  - **Contract Liabilities** amounting to 9 million euros (17 million euros at December 31, 2020); the item includes bundle contracts (good and services packages) with performance obligations with different timing for the recognition of revenues and consequent deferral of the fees originally recognized. The decrease recognized in the year 2021 (-8 million euros) was mainly linked to the launch of commercial offers that no longer require a fixed duration and the reversal to the income statement of the balance previously accumulated;;
  - **Customer-related items** of 372 million euros (351 million euros at December 31, 2020): the item includes trade payables following contractual relationships, such as the payable for prepaid traffic and the subscription charges charged in advance;
  - **Advance receipts and payments** amounting to 62 million euros (80 million euros at December 31, 2020): the item includes trade payables following prepayments, such as deposits made by subscribers for phone calls;
  - **Deferred revenues from contracts with customers** of 291 million euros (263 million euros at December 31, 2020): the item refers to the deferral of revenues from customers contracts and mainly includes:
    - deferred revenues on activation and installation of new contracts with customers (7 million euros);
    - deferred revenues for interconnection charges (116 million euros);
    - deferred revenues for rent and maintenance (131 million euros).
- **Other deferred revenues and proceeds** amounted to 29 million euros (58 million euros at December 31, 2020): related for 26 million euros to deferred revenues from transmission capacity transfer contracts and for 3 million euros to deferred revenues from real estate lease contracts (income from operating leases).
- **Other income** (26 million euros, 21 million euros at December 31, 2020): this relates to payables for advances on work in progress on networks.

NOTE 23

DISPUTES AND PENDING LEGAL ACTIONS, OTHER INFORMATION, COMMITMENTS AND GUARANTEES

A description is provided below of the most significant judicial, arbitration and tax disputes in which TIM S.p.A. was involved at December 31, 2021, as well as those that came to an end during the year.

TIM S.p.A. has posted liabilities totaling 313 million euros for those disputes described below where the risk of losing the case has been considered probable.

It should be noted that for some of the disputes described below, it was not possible to make a reliable estimate of the size and/or times of possible payments, if any, on the basis of the information available at the closing date of the present document, particularly in light of the complexity of the proceedings, the progress made, and the elements of uncertainty of a technical-trial nature. Moreover, in those cases in which disclosure of information on a dispute could seriously jeopardize the position of TIM or its subsidiaries, only the general nature of the dispute is described.

Lastly, as regards proceedings with the Antitrust Authority, note that based on Article 15, paragraph 1 of Law 287/1990 (“Antitrust regulations”), the Authority has the right to impose an administrative sanction calculated on the turnover of the Group in cases of breaches considered serious.

a) Significant disputes and pending legal actions

Administrative offense charge pursuant to Legislative Decree 231/2001 for the so-called TIM Security Affair

In December 2008 TIM received notification of the application for its committal for trial for the administrative offense specified in articles 21 and 25, subsections 2 and 4, of legislative decree no. 231/2001 in relation to the affairs that involved several former employees of the Security function and former collaborators of the Company charged – among other things – with offenses involving corruption of public officials, with the object of acquiring information from confidential files. In May 2010 TIM definitively ceased to be a defendant in the criminal trial, the Judge for the Preliminary Hearing having approved the motion for settlement of the proceedings (plea bargaining) presented by the Company. In the hearing before Section One of the Milan Court of Assizes, TIM acted in the dual role of civil party and civilly liable party. In fact, on the one hand it was admitted as civil party against all the defendants for all charges, and on the other it was also cited as the party with civil liability pursuant to article 2049 of the Italian Civil Code for the actions of the defendants in relation to 32 civil parties. Telecom Italia Latam and Telecom Italia Audit and Compliance Services (now incorporated into TIM) also participated in the hearing as civil parties, having filed appearances since the Preliminary Hearing and brought charges against the defendants for hacking. After the lengthy evidence hearings, 22 civil parties filed claims for compensation, also against TIM as civilly liable party, for over 60 million euros (over 42 million euros of which requested by a single civil party). The Company itself, as civil party, also summarized its conclusions against the defendants, requesting that they be found liable for all the damages suffered as a result of the facts of the case. In February 2013, Section 1 of the Milan Court of Assizes issued the first instance judgement, sentencing the defendants to terms of imprisonment of between 7 years and 6 months and one year. The Court also recognized that there had been non-pecuniary damage to some of the civil parties as a consequence of the alleged facts, and sentenced the defendants, jointly and severally with civilly liable party TIM, to compensate said damages, totaling 270,000 euros (in part jointly and severally with Pirelli) plus legal fees; at the same time the Court also sentenced the defendants to pay compensation for pecuniary and non-pecuniary damages incurred by the Company, granting it a provisional sum of 10 million euros. The judgement also recognized the existence of non-pecuniary damage to the companies Telecom Italia Latam and Telecom Italia Audit & Compliance Services, sentencing the defendants to pay compensation for damages on an equitable basis of 20,000 euros for each company. In November 2013 the grounds for the judgement in the first instance were published (which, for its part, the Company decided not to contest). At the end of the appeal, which was brought by the convicted defendants, the judgement in the first instance was partly reversed. The appeal judge acknowledged that the time-limit had expired on the majority of the charges and made an order not to proceed against the defendants who had been convicted in the lower court, with the exception of two former private investigators, who were found guilty of the offense of revealing information which was subject to a prohibition on disclosure. As for the civil judgements, the Court revoked those made by the judge of first instance and ruled in favor of three ministries, AGCM (the Italian Competition Authority) and the Revenues Agency. The Court also decided to revoke the provisional sum of 10 million euros awarded to the Company as civil party at the end of the proceedings in the court of first instance, making a generic ruling that the defendants should pay compensatory civil damages. Finally, the appeal judge also rejected all the demands for compensation advanced in the appeals by certain civil parties for a total of about 60 million euros, in respect of which the Company has the role of party liable for damages. At the end of the appeal, therefore, the civil rulings settled in the first instance were confirmed which TIM, as the party liable for damages, had already paid to the damaged requesting parties. The three defendants brought an appeal to the Court of Cassation against the judgement of the second instance issued by the Milan Appeal Court of Assizes. In April 2018 the Supreme Court confirmed the convictions of the defendants and canceled the civil rulings, referring the issue back to the civil court for a more careful assessment of the claims made, above all concerning proof of the "quantum". It also annulled and referred the confiscation in favor of the State. The annulment of the security measure was lastly and definitively confirmed with a ruling by the Court of Cassation filed in January 2021.

Golden Power Case

In August 2017 the Prime Minister's office brought proceedings against TIM (as well as Vivendi) in order to verify the fact that TIM has an obligation to notify, pursuant to the "Golden Power" law, Vivendi's acquisition of corporate control of TIM and the strategic assets it holds. In September 2017, the proceedings in question concluded by affirming that this obligation did exist for TIM with effect from May 4, 2017 (the date of the Shareholders' Meeting that renewed TIM's corporate boards).

As a result of this decision by the Presidency of the Council of Ministers, new and separate administrative proceedings started for the imposition on TIM of the financial penalty laid down by the Golden Power law for non-compliance with the aforementioned obligation to notify. These proceedings ended on May 8, 2018 with the imposition of a financial penalty of 74.3 million euros.

The Company, is convinced that it has the legal arguments to demonstrate that it was under no obligation to notify the control exercised over it by Vivendi, filed separate extraordinary appeals to the President of the Republic to request the abrogation of the order of September 2017 and before the Lazio Regional Administrative Court (TAR) against the aforementioned order of May 8, 2018, which imposed a financial penalty, requesting its precautionary suspension. As regards the appeal to the Lazio Regional Administrative Court (TAR) against the provision of May 8, 2018, which imposed the financial penalty, the TAR, in upholding in July 2018 the interim petition lodged by the Company, has suspended payment of the penalty. Subsequently, with a non-definitive ruling in May 2019, the Lazio Regional Administrative Court (TAR)R: (i) accepted TIM's request for provisional measures to suspend the fine conditional on the offer of the guarantee; (ii) granted the suspension of the procedure to wait for the final judgment in the (injurious) case pending before the President of the Republic regarding the notification obligation, pursuant to the Golden Power provisions; (iii) rejected the procedural objections raised by the defendant administrations.

It should also be noted that in May 2018 a guarantee bond for 74.3 million euros was issued in favor of the Presidency of the Council. TIM had been requested to submit such a bond for its application to Lazio TAR for precautionary suspension of the collection of the fine imposed for alleged breach of Art. 2 of Decree Law 21 of March 15, 2012 (the "Golden Power" law). This surety was renewed in May 2021.

Furthermore, TIM appealed before the Lazio TAR and then appealed before the Council of State against the provision with which Consob, on September 13, 2017, affirmed Vivendi's control over TIM. In December 2020, the Council of State issued a final judgment upholding TIM's appeal and canceling the provision by Consob, a significant premise to the entire subsequent proceedings of the Presidency of the Council in relation to the obligation to Golden Power notification as described above. On June 14, 2021, Consob submitted an extraordinary appeal to the Court of Cassation on grounds of jurisdiction; TIM filed an appearance, objecting that the appeal is unlawful and inadmissible.

On the other hand, the Presidency of the Council of Ministers exercised the special powers prescribed in the Golden Power law through two specific rulings in October and November 2017 with which it imposed specific prescriptions and conditions on TIM and on the companies of the Telecom Italia Sparkle group and Telsy Elettronica e Telecomunicazioni (now Telsy S.p.A.).

The prescriptions, according to the Administrative Authority, are essentially connected to the circumstance that these companies, in part, perform activities that are relevant for national security and as far as TIM is concerned to the circumstance that it also owns the infrastructure and the systems used to provide access to end-users of services covered by the universal service obligation.

Any failure on the part of the recipients of the measures to execute said conditions and prescriptions is penalized in the same way as failure to notify significant deeds for the purpose of the application of the so-called Golden Power.

The companies subject to the prescriptions are required to send periodic reports to a special Monitoring Committee established at the office of the Prime Minister in order to verify compliance with the aforementioned prescriptions.

In December 2017 the Group sent to the Presidency of the Council of Ministers the first compliance report outlining all the proposals and activities put in place to carry out the prescriptions. This report is then followed by half yearly reports, as required by current legislation.

Nevertheless, also for this case TIM has already filed two extraordinary appeals to the President of the Republic to request the cancellation (i) of the imposition of the measures pursuant to Art. 1 D.L. 21/2012 and (ii) the imposition of measures pursuant to Art. 2 D.L. 21/2012.

As stated, the premise for exercising special powers was (erroneously, according to the Company) referred to the de facto control resulting from the outcome of the shareholders' meeting of May 4, 2017 and to the direction and coordination of TIM by Vivendi. Both these circumstances no longer apply, since: at the Shareholders' Meeting of May 4, 2018, the slate presented by the shareholders Elliott International LP, Elliott Associates LP and The Liverpool Limited Partnership received the majority vote; the Board of Directors was re-appointed with 13 independent directors out of a total of 15, with only 5 from the slate presented by Vivendi; thus, Vivendi no longer has direction and coordination, nor is there de facto control.

In consequence, the Company has asked the Presidency of the Council of Ministers to repeal the two Decrees, while, in the alternative, expressing its willingness to collaborate in the redrafting of the prescriptions applied to TIM, to take account of the changed situation.

The Presidency of the Council of Ministers, in decrees issued on July 6, 2018, deemed that it could not further exercise its special powers, reaffirming the validity of the two Decrees it had previously issued, and rejected the application for their repeal.

The justification for this refusal is the purported circumstance that the new governance arrangements of the Company are alleged to be currently characterized by extreme variability; this, it is argued, means that the measures through which the special powers have been exercised cannot be surmounted, given the need to protect the public interest in the security and operation of the networks.

The Company has lodged an appeal, with additional reasons and as part of the appeals already lodged, against the Prime Minister's decrees of October 16 and November 2, 2017, and against the Prime Minister's resolution of July 6, 2018, rejecting the appeal for revocation presented by the company, on the outcome of the changed situation in corporate governance.

Antitrust Case A428

At the conclusion of case A428, in May 2013, Italian Competition Authority AGCM imposed two administrative sanctions of 88,182,000 euros and 15,612,000 euros on TIM for abuse of its dominant position. The Company allegedly (i) hindered or delayed activation of access services requested by OLOs through unjustified and spurious refusals; (ii) offered its access services to final customers at economic and technical conditions that allegedly could not be matched by competitors purchasing wholesale access services from TIM itself, only in those geographic areas of the Country where disaggregated access services to the local network are available, and hence where other operators can compete more effectively with the Company.

TIM appealed against the decision before the Regional Administrative Court (TAR) for Lazio, applying for payment of the fine to be suspended. In particular, it alleged: infringement of its rights to defend itself in the proceedings, the circumstance that the organizational choices challenged by AGCM (the Italian Competition Authority) and allegedly at the base of the abuse of the OLO provisioning processes had been the subject of specific rulings made by the industry regulator (AGCom), the circumstance that the comparative examination of the internal/external provisioning processes had in fact shown better results for the OLOs than for the TIM retail department (hence the lack of any form of inequality of treatment and/or opportunistic behavior by TIM), and (regarding the second abuse) the fact that the conduct was structurally unsuitable to reduce the margins of the OLOs.

In May 2014, the judgement of the Lazio TAR was published, rejecting TIM's appeal and confirming the fines imposed in the original order challenged. In September 2014 the Company appealed against this decision.

In May 2015, with the judgement no. 2497/15, the Council of State found the decision of the court of first instance did not present the deficiencies alleged by TIM and confirmed the AGCM ruling. The company had already proceeded to pay the fines and the accrued interest.

In a decision notified in July 2015, AGCM (the Italian Competition Authority) started proceedings for non-compliance against TIM, to ascertain if the Company had respected the notice to comply requiring it to refrain from undertaking behaviors analogous to those that were the object of the breach ascertained with the concluding decision in case A428 dated May 2013.

On January 13, 2017, TIM was served notice of AGCM’s final assessment, which recognized that TIM had complied in full with the A428 decision and, as such, the conditions for the imposition of a fine for non-compliance were not present.

AGCM (the Italian Competition Authority) recognizes, furthermore, that TIM's behavior subsequently to the 2013 proceedings has been directed towards continuous improvement of its performance in the supply of wholesale access services concerning not only the services which were the subject of the investigation, but also the new super-fast broadband access services. In assessing compliance, AGCM (the Italian Competition Authority) recognized the positive impact of the implementation, albeit not yet completed, of TIM's New Equivalence Model (NME). The AGCM decision orders TIM to: (i) proceed with the implementation of the NME until its completion which is expected to be by April 30, 2017; (ii) to inform the Authority about the performance levels of the systems for providing wholesale access services and about the completion of the corresponding internal reorganization plan by the end of May 2017. The Company quickly complied with both orders, and AGCOM communicated its satisfaction on August 9, 2017.

Vodafone lodged an appeal with the Lazio Regional Administrative Court against the final decision in the proceedings for non-compliance taken by AGCM (the Italian Competition Authority). TIM filed an appearance, as in the other lawsuits filed in March 2017 by the operators CloudItalia, KPNQWest Italia and Digitel.

Vodafone (A428)

In August 2013, Vodafone, as incorporating company of operator Teletu, submitted to the Milan Court a huge claim for damages for presumed abusive and anticompetitive behavior (founded principally on AGCM case A428) which TIM allegedly implemented in the period 2008 - 2013. The pecuniary claim was quantified by Vodafone as an estimated sum of between 876 million euros and 1,029 million euros.

In particular, Vodafone alleged technical boycotting activities, with refusal to activate lines requested for Teletu customers (in the period from 2008 to the month of June 2013), together with the adoption of allegedly abusive price policies for wholesale network access services (period from 2008 to the month of June 2013). Furthermore, the other party complained of the presumed application of discounts to business customers greater than those envisaged ("margin squeezing") and the carrying out of presumed illegal and anticompetitive win-back practices (in the period from the second half of 2012 to the month of June 2013).

TIM filed an appearance, challenging the claims made by the other party regarding the merits and the amount and making a counterclaim. Following the August 2016 decision by the Court of Cassation which confirmed that the Milan Court had jurisdiction to decide the dispute, the merits of the case will be decided at the hearing in December 2016.

With writ of summons before the Milan Court served in May 28, 2015, Vodafone filed additional damages claims, all based on the same AGCM A428 decision and referring to alleged damages suffered between July 2013 and December 2014 (and hence over a period subsequent to that of the damages claim reported above), for a total amount of around 568.5 million euros.

The case also contains a reservation of further damages to be quantified, during the proceedings, for the following periods, the claimant alleging that the presumed abusive conduct of TIM continued. TIM filed an appearance, challenging the claims made by the other party regarding the merits and the amount and making a counterclaim.

By order of October 6, 2016, the judge received Vodafone’s application for the two A428 lawsuits brought by it to be joined. At the end of the reinstatement proceedings of December 21, the terms were established for the preliminary briefs and a hearing was fixed for July 11, 2017 for the admission of evidence. When the first preliminary brief was filed, following the favorable outcome for TIM of proceedings A428C (which confirmed the absence of improper conduct by the Company under A428 after 2011), Vodafone decided nonetheless to file further claims for 2015-2016, thus restating its total claim to be 1,812 million euros, which was also disputed and rebutted by TIM.

The case was settled as part of a global settlement with Vodafone.

Colt Technology Services

With writ of summons before the Milan Court served in August 2015, the operator Colt Technology Services filed a damages claim based on the A428 decision, requesting compensation for alleged damages suffered from 2009 to 2011 as a result of purportedly inefficient and discriminatory conduct by TIM in the wholesale service supply process. The damage claimed was quantified as 27 million euros in loss of profits for the alleged non-acquisition of new customers, or for the alleged impossibility of supplying new services to the customers it had already acquired; the other party also formulated a request for compensation for the damages to its image and commercial reputation. This case follows the extrajudicial claim for approximately 23 million euros, previously advanced by Colt in June 2015, which the Company rejected in its entirety. TIM filed an appearance, contesting all of the plaintiff's allegations.

COMM 3000 S.p.A. (formerly KPNQWest Italia S.p.A.)

With writ of summons before the Rome Court, COMM 3000 S.p.A.(formerly KPNQWest Italia S.p.A.) filed a damages claim for a total of 37 million euros in compensation for alleged anticompetitive and abusive conduct over the period 2009–2011, in the form of technical boycotting (refusals to activate wholesale services – KOs); the claim was based on the contents of the decision of AGCM (the Italian Competition Authority) that settled the A428 case. TIM filed an appearance, contesting all of the plaintiff's allegations. In the judgment with ruling in April 2019, the Court of Rome partially received the petitions of COMM 3000 S.p.A. (formerly KPNQWest Italia S.p.A.), sentencing TIM to pay an amount significantly lower than the amount in the counterparty's damages claim. In June 2019, TIM appealed against the judgment. In the judgment given in April 2021, the Court of Appeal of Rome partly upheld TIM's appeal, reducing the amount of the compensation due to COMM 3000, which was in any case entirely covered by the relevant provision. In November 2021, TIM has appealed to the Court of Cassation over the judgment of the Court of Appeal of Rome in.

TELEUNIT

With a writ of summons issued in October 2009 before the Milan Appeal Court, Teleunit asked that TIM alleged acts of abuse of its dominant position in the premium services market be ascertained. The plaintiff quantified its damages at a total of approximately 362 million euros. TIM filed an appearance, contesting the claims of the other party.

After the ruling of January 2014 with which the Court of Appeal declared that it was not competent in this matter and referred the case to the Court, Teleunit reinstated the case before the Milan Court the following April. TIM filed an appearance in the reinstated proceedings challenging the plaintiff's claims.

In its judgement of May 2017, the Milan Court rejected Teleunit's claim in its entirety, and ordered the company to pay the legal costs of the case. This judgement was appealed by Teleunit, in June 2017, before the Milan Court of Appeal. TIM filed an appeal challenging the arguments presented by the other party and asking that the judgement in the first instance be fully confirmed. With an order in March 2018 the Milan Court of Appeal declared Teleunit's appeal pursuant to art. 348-bis of the Italian Code of Civil Procedure to be manifestly without foundation, and hence inadmissible. In May 2018 Teleunit appealed the judgement of the Court of Appeal to the Court of Cassation. TIM lodged a counter-appeal seeking confirmation in full of the order being appealed (and thus of the judgment at first instance).

MC-Link

With writ of summons before the Rome Court, MC-Link filed a damages claim for a total of 51 million euros in compensation for alleged anticompetitive and abusive conduct over the period 2009–2012, in the form of technical boycotting (refusals to activate wholesale services – KOs). The claim was based on the contents of the decision of AGCM (the Italian Competition Authority) that settled the A428 case. TIM filed an appearance, contesting all of the plaintiff's allegations. In August 2021, the case was settled as part of a global settlement with the opposing party.

Eutelia and Clouditalia Telecomunicazioni

With a writ of summons dated May 2020, Eutelia in Extraordinary Administration and Clouditalia Telecomunicazioni S.p.A., purchaser of Eutelia's TLC branch, brought an action against TIM before the Court of Rome, making claims for damages, of around 40 million euros, for damages allegedly suffered, in the period 2009-2012, following the technical boycott and margin squeeze conduct, subject of the AGCM A428 procedure. TIM filed an appearance, contesting the claims made by the opposing party and formulating a counterclaim, subject to quantification of the damages incurred during the proceedings.

Antitrust Case I761

With a ruling issued on July 10, 2013, AGCM (the Italian Competition Authority) extended to TIM the investigation started in March of the same year into some firms active in the fixed network maintenance sector. The investigation aims to establish if an agreement exists that is prohibited under article 101 of the Treaty on the Functioning of the European Union. The proceedings were initiated after Wind filed two complaints in which AGCM (the Italian Competition Authority) was informed that, based on an invitation to bid for the assignment of network corrective maintenance services, it had encountered substantial uniformity of prices offered by the aforementioned enterprises and a significant difference from the offers submitted subsequently by other and different companies.

AGCM (the Italian Competition Authority) alleged that TIM carried out a role of coordinating the other parts of the procedure, both during the formulation of the offers requested by Wind and in relation to the positions represented to communications regulator AGCom.

TIM challenged these proceedings before the Administrative Court (TAR), sustaining that the ICA does not have competence in this matter.

On July 7, 2014, AGCM (the Italian Competition Authority) notified the objective extension of the proceedings to check if the Company, abusing its dominant position, put in place initiatives that might influence the conditions of the offer of accessory technical services when the offers of the maintenance businesses to Wind and Fastweb were being formulated. With the extension decision, the Authority also extended the closing date of the investigation, originally set for July 31, 2014, to July 31, 2015. This extension was also challenged before the Lazio Administrative Court (TAR) sustaining that the Italian Competition Authority does not have competence in this matter.

In November 2014, for reasons of procedural economy and also convinced that it was acting legitimately, TIM presented to the Authority a proposal of undertakings in order to resolve the competition concerns subject of the investigation. On December 19, 2014, AGCM (the Italian Competition Authority) issued its decision finding that the undertakings were not clearly unfounded and subsequently ordered their publication for market testing.

On March 25, 2015, AGCM (the Italian Competition Authority) definitively rejected the aforesaid undertakings, considering them not suitable for removing the anticompetitive aspects investigated.

On July 21, 2015 the Communication of the Results of the Investigation was served on the parties to the proceedings, in which the Offices of AGCM (the Italian Competition Authority) expressed their position in the sense of (i) archiving the complaints regarding the abuse of dominant position and (ii) confirming, instead, that there exists between TIM and the maintenance firms an agreement to coordinate the economic offers drawn up for Wind and Fastweb, and to prevent the unbundled supply of the ancillary technical services.

On December 16, 2015, the final order was issued, confirming the conclusions of the Communication of the Results of the Investigation, sustaining that, between 2012 and 2013, there existed an agreement that restricted competition, and as a result imposed a fine of 21.5 million euros on the Company, paid in March 2016. The relevant market is the corrective maintenance (assurance) market and, more precisely, the market for troubleshooting the TIM LLU lines. The purpose of the conduct maintained by the Company and the network firms would have been to limit competition and prevent the evolution of forms of unbundled supply of ancillary technical services.

TIM appealed the order before the Lazio Regional Administrative Court. In judgement no. 09554/2016 issued in September 2016, the appeal was dismissed, and the Company appealed this decision to the Council of State. On the outcome of the proceedings, with the ruling of December 2019, the Council of State, deciding in favor of TIM, annulled the AGCM I761 provision and referred the task of conducting a new investigation to AGCM (the Italian Competition Authority), within the limits that decided by the Council of State itself. In 2020, TIM obtained the return of amounts paid by way of sanction.

Following analysis, in a letter dated April 2, 2021, AGCM (the Italian Competition Authority) reported that it had archived case I761.

Vodafone (I761)

With a writ of summons before the Milan Court, Vodafone has sued TIM and some network companies, bringing claims for compensation from the Company for around 193 million euros for damages arising from alleged anti-competitive conduct censured in the known AGCM case I-761 (on corrective maintenance) referring to the period from 2011 to 2017.

Vodafone contests the alleged breach of the competition rules carried out by TIM, in the wholesale markets giving access to its fixed network (LLU lines; Bitstream; WLR), through the abuse of a dominant market position and an unlawful agreement with the maintenance companies to maintain the monopoly on the offer of corrective maintenance services on its network. Specifically, the restrictive agreement allegedly concerned the coordination, by the Company, of the economic terms and conditions contained in the bids for maintenance services prepared by the aforementioned companies for OAOs, with artificially high prices with respect to the cost of the maintenance included in the regulated access fee, with a view to discouraging the disaggregation of the service itself. The Company filed an appearance, contesting all of the other party's requests. The case was settled as part of a global settlement with Vodafone.

Antitrust Case A514

In June 2017 the Italian Competition Authority (AGCM) started proceedings A514 against TIM, to ascertain a possible abuse of its dominant market position in breach of article 102 of the "Treaty on the Functioning of the European Union". The proceedings were started based on some complaints filed in May and June 2017, by Infratel, Enel, Open Fiber, Vodafone and Wind Tre, and concerns a presumed abuse of TIM's dominant position in the market for wholesale access services and for retail services using the broadband and ultra-broadband fixed network. In particular, AGCM (the Italian Competition Authority) hypothesized that TIM had adopted conduct aimed at: i) slowing and hindering the course of the Infratel tender processes so as to delay, or render less remunerative the entry of another operator in the wholesale market; ii) preemptively securing customers on the retail market for ultra-broadband services by means of commercial policies designed to restrict the space of customer contendibility remaining for the competitor operators.

After the start of the proceedings, the Authority's officials carried out an inspection at some of TIM's offices in the month of July 2017. On November 2, 2017, TIM filed a defense brief in which, in support of the correctness of its actions, it challenged all the arguments that the conduct it had allegedly engaged in, and which was the subject of the case, was unlawful.

On February 14, 2018, AGCM (the Italian Competition Authority) resolved to extend the scope of the case to investigate further behavior concerning TIM's wholesale pricing strategy on the market for wholesale access to broadband and ultra-broadband, and the use of the confidential information of customers of the alternative operators.

On July 5, 2018 TIM filed proposed undertakings which, if accepted by the Authority, would close the investigation without any offense being established or sanction being administered. The undertakings were considered as admissible by the Authority, that market tested them in August and September.

On October 30, 2018, TIM replied to observations made by third parties and modified its proposed undertakings. With its decision notified on December 4, 2018, AGCM (the Italian Competition Authority) once and for all rejected the proposed series of undertakings as it considered them unsuitable in light of the objections raised.

On March 4, 2019, TIM requested AGCM (the Italian Competition Authority) for an extension of the deadline for closing the proceedings (initially set for May 31, 2019).

On April 10, 2019, AGCM (the Italian Competition Authority) resolved to extend the deadline for conclusion of the proceedings until September 30, 2019. On May 17, 2019, AGCM (the Italian Competition Authority) notified TIM of the results of the investigation (CRI). In the CRI, AGCM (the Italian Competition Authority) essentially confirmed the case for the prosecution outlined in the start-up and extension of the proceedings orders.

On June 12, 2019 AGCM (the Italian Competition Authority) extended the deadline for deposit of TIM's final defense to September 20, 2019 and set the final hearing for September 25, 2019.

On September 18, 2019, AGCM (the Italian Competition Authority) resolved to extend the deadline for conclusion of the proceedings until February 28, 2020.

On March 6, 2020, TIM was notified of the decision to close the investigation: AGCM (the Italian Competition Authority) ruled that TIM had abused its dominant position, finding that TIM had put in place an anti-competitive strategy designed to hinder the competitive development of investment in ultrabroadband network infrastructure.

The fine imposed on TIM for the anti-competitive offense is 116,099,937.60 euros. TIM appealed the aforementioned fine before the Lazio Regional Administrative Court (TAR). By judgment given on February 28, 2022, the Lazio Administrative Court rejected TIM's appeal; it now intends to bring an appeal before the Council of State by the legal deadline.

On June 25, 2020 TIM sent AGCM (the Italian Competition Authority) the so-called compliance report as ordered in the final provision. The hearing before the Lazio Regional Administrative Court was held on November 3, 2021. The Company is awaiting the judgement.
In May 2021, the Company paid the fine.

Open Fiber

In March 2020, Open Fiber (OF) sued TIM before the Court of Milan, claiming damages of 1.5 billion euros for alleged abuse of an exclusive and dominant position in relation to OF. The alleged actions consist of: (i) pre-emptive investments in FTTC networks in white areas; (ii) initiating specious legal action to obstruct Infratel tenders; (iii) spurious repricing of certain wholesale services; (iv) commercial lock-in offers on the retail market; (v) false disclosure to AGCom in connection with the approval of a wholesale offer and spreading rumors about TIM being interested in acquiring OF; (vi) discriminatory access conditions to TIM passive infrastructure. TIM filed an appearance, contesting the arguments of OF. Enel S.p.A. intervened in the proceedings, asking that TIM be ordered to compensate all damages suffered and being suffered by Enel and OF. During the course of the proceedings, this amount was increased to 2.6 billion euros.

Vodafone

In January 2021, Vodafone Italia S.p.A. summonsed TIM to the Court of Milan, making a claim for damages of approximately 100 million euros for damages allegedly suffered as a consequence of the unlawful conduct of TIM, as sanctioned by the AGCM (the Italian Competition Authority), with the provision that concluded case A514.

The conduct of TIM sanctioned by the Authority allegedly resulted in a slowing of the penetration of UBB infrastructures on the market of white areas and, consequently, the delayed or failed acquisition of new customers by Vodafone, as well as a hindrance to acquiring additional customers as a result of the alleged binding practices over the whole of national territory. TIM will file an appearance with a series of solid legal arguments for its own protection. The case was settled as part of a global settlement with Vodafone.

Fastweb

In February 2021, Fastweb S.p.A. summonsed TIM to the Court of Milan, making a claim for damages of approximately 996 million euros for damages allegedly suffered as a consequence of the unlawful conduct of TIM, as sanctioned by AGCM (the Italian Competition Authority), with the provision that concluded case A514, as well as allegedly opportunistic suspensions of activation orders sent by Fastweb.

Fastweb complains that TIM allegedly delayed the wholesale offer of ultrabroadband services by Open Fiber in the white areas, consequently slowing the offer of said services by Fastweb to its end customers in these areas; binding practices were implemented in relations with the end customer, hindering access to the market by alternative operators (including Fastweb). In addition, TIM allegedly instrumentally managed the supply process of wholesale access services to its fixed broadband and ultrabroadband network, opportunistically suspending the activation orders submitted by Fastweb and thereby hindering its activation of new customers. TIM filed an appearance laying out solid arguments refuting Fastweb's claims. In August 2021, the case was settled as part of a settlement with Fastweb.

Antitrust Case I799

At its meeting on February 1, 2017, AGCM (the Italian Competition Authority) initiated an investigation for possible breach of Article 101 of the TFEU (prohibition of agreements that restrict competition) against TIM S.p.A. and Fastweb S.p.A., following the signing of an agreement aimed at setting up a cooperative joint venture called Flash Fiber S.r.l.. TIM, in agreement with Fastweb, submitted to AGCM (the Italian Competition Authority) some amendments to the agreements signed, in the form of proposed undertakings, aimed at closing the investigation without any breach being ascertained and, therefore, without any fine.

On March 28, 2018, AGCM (the Italian Competition Authority) resolved to approve the undertakings, making them binding on the Parties, and closed the case without imposing any fine.

On January 30, 2019, TIM sent the planned annual report on the provided coverage to AGCM (the Italian Competition Authority), supplemented by a subsequent communication dated March 29, 2019. TIM transmitted further details to AGCM (the Italian Competition Authority) in July and AGCM acknowledged it on October 15, 2019. On January 31, 2020 TIM sent AGCM (the Italian Competition Authority) the third report on the implementation of the undertakings given. Finally, on January 29, 2021 TIM sent AGCM (the Italian Competition Authority) the fourth and final report on the implementation of the undertakings given.

On June 11, 2018 Open Fiber S.p.A. and Wind Tre S.p.A. filed separate appeals to the Lazio Regional Administrative Court (TAR) against the order closing case I799 with the acceptance of the undertakings. They allege that this order has a series of procedural and substantial defects.

Open Fiber S.p.A. also asked for the precautionary suspension of the order.

In a ruling of March 2020, the Regional Administrative Court rejected in full the appeal by Open Fiber. A hearing on the merits has not yet been scheduled for Wind Tre's appeal.

Vodafone

In June 2015 Vodafone issued proceedings for damages in the Milan Court for alleged abuse of a dominant position by TIM in the bitstream "NGA" and "VULA" fiber access services market, initially claiming around 4.4 million euros, increased to a figure ranging from 30 to 48.9 million euros.

The plaintiff complained that TIM allegedly had engaged in abusive conduct by way of aggressive price offers to win customers and by hindering Vodafone's access to the fiber network to make it more difficult for the party to provide ultra-broadband services to its customers.

TIM has filed an appearance, challenging the claims of the plaintiff in full and, subsequently, the revised estimate of damages made in 2016 during the case. The case was settled as part of a global settlement with Vodafone.

Eutelia and Voiceplus

In June 2009, Eutelia and Voiceplus asked that alleged acts of abuse by TIM of its dominant position in the premium services market (based on the public offer of services provided through so-called Non Geographic Numbers) be investigated. The complainants quantified their damages at a total of approximately 730 million euros.

The case follows a precautionary procedure in which the Milan Appeal Court prohibited certain behaviors of the Company relating to the management of some financial relations with Eutelia and Voiceplus concerning the Non Geographic Numbers, for which TIM managed the payments from the end customers, on behalf of such OLOs and in the light of regulatory requirements. After the ruling with which the Milan Court of Appeal accepted TIM's objections, declaring that it was not competent in this matter and referring the case to the Civil Court, Eutelia in extraordinary administration and Voiceplus in liquidation resubmitted the matter to the Milan Court. The first hearing took place in the month of March 2014. TIM filed an appearance challenging the claims of the other parties. After the collapse of Voiceplus, the Milan Court declared the case suspended, in an order in September 2015. The case was later resumed by Voiceplus.

With a judgment issued in February 2018, the Milan Court accepted TIM's defense and rejected the plaintiffs' claim for compensation, ordering them, jointly and severally, to pay the legal costs. In March 2018 Eutalia and Voiceplus proposed an appeal against the judgement in the first instance.

TIM appealed against the claim, requesting confirmation in full of the judgment in the first instance. The appeal of Eutelia and Voiceplus was fully rejected with the judgment of August 5, 2019. In December 2019 Eutelia and Voiceplus appealed to the Court of Cassation over the judgment of the Court of Appeal. TIM notified a counterclaim asking confirmation of the ruling appealed against.

28-day billing

AGCom resolution 121/17/CONS introduced instructions on billing intervals for telephony, prescribing, for fixed telephony, that the interval should be monthly, or multiples thereof, and, for mobile telephony, that it should be at least four-weekly. TIM appealed Resolution 121/17/CONS to the Regional Administrative Court. The judgment rejecting the appeal was published in February 2018. TIM appealed this judgment to the Council of State in June 2018. On September 23, 2020, the non-definitive ruling was published whereby the Council of State joined the appeals submitted by TIM, Vodafone, Fastweb and Wind Tre and ordered the prejudicial deferral to the European Union Court of Justice (EUCJ) on whether or not the Authority had the power to regulate the frequency of renewal of the commercial offers and invoicing periods, at the same time rejecting the other grounds of appeal submitted by the operators and suspending proceedings. In February 2021, TIM deposited the written observations on the requests for prejudicial judgment with the EUCJ. At the request of the CJEU, the Council of State, in an order published on November 23, 2021, confirmed the referral to the Court of Justice on the preliminary questions raised; the proceedings before the Council of State therefore remain suspended pending the CJEU's decision.

With its Resolution 499/17/CONS, having confirmed the breach of Resolution 121/17/CONS, AGCom fined TIM 1,160,000 euros, ordering it to make provision – when the billing cycle was restored to monthly intervals or multiples thereof – to return the amounts corresponding to the fee for the number of days that, from June 23, 2017, had not been used by the users in terms of the supply of service due to the misalignment of the four-weekly and monthly billing cycles.

In March 2018 with resolution no. 112/18/CONS AGCom (i) revoked the preceding resolution 499/17/CONS in the part in which TIM was ordered to repay the amounts presumably lost from June 23, 2017 onwards, with the four-weekly billing cycle, (ii) cautioned TIM, with regard to fixed-line voice services only, against postponing the starting date of invoices issued after the return to monthly invoicing by the same number of days as those presumably deducted starting from June 23, 2017 with the four-weekly invoicing cycle.

Under Presidential Decree 9/18/PRES, AGCom amended the provisions of Decision 112/18/CONS requiring the deferment of billing once the billing cycle was restored to monthly intervals, or multiples thereof, while also ordering that the timescales for complying with the order would be identified after hearings with the operators and the main consumer protection associations.

In July 2018, AGCom issued resolution 269/18/CONS, with which it set December 31, 2018 as the date by which the operators had to return to their fixed network customers a number of days of service equal to those eroded as an effect of 28-day billing, or propose to the affected customers any alternative compensatory measures, after having notified them to AGCom. TIM has appealed all of the above resolutions.

With the judgment published in November 2018, the TAR canceled the pecuniary administrative sanction of 1.16 million euros imposed with Resolution 499/17/CONS, and confirmed the obligation of restitutio in integrum to the fixed-line customers by December 31, 2018. TIM filed its preventive appeal before the Council of State to suspend the execution of said decision and, with its ruling of December 20, 2018, the Council of State, in upholding TIM's appeal, suspended the effectiveness of the aforesaid decision for the reversal order only, until May 21, 2019 while awaiting publication of the grounds for the judgment.

The date of the hearing to discuss the introductory appeal and additional grounds submitted in the meantime by TIM is still to be set. On July 12, 2019 the ruling mechanisms with which the Council of State rejected the similar appeals made by Vodafone, Wind Tre and Fastweb were published and in February 2020 the judgments containing the grounds were published.

In September 2019, TIM also challenged resolution 221/19/CONS, before the Regional Administrative Court (TAR), with which the sanction pursuant to Resolution 499/17/CONS, canceled by the Regional Administrative Court of Lazio, was recalculated to the amount of 580,000.00 euros, with the maximum fine provided for by Art. 98, paragraph 16 of the CCE in force at the time of the events applied.

In August 2019, AGCom initiated new proceedings (CONT 12/19/DTC) for failure to comply with the order to refund the days eroded by billing every 28 days for fixed network and convergent customers, according to the procedures established with resolutions nos. 112/18/CONS and 269/18/CONS. On conclusion of these proceedings, by means of Resolution 75/20/CONS, the Authority found that TIM did not comply with the above resolutions, imposing a fine of 3 million euros. The measure was challenged by TIM before the TAR in July 2020.

Moreover, since June 2019, TIM has offered its fixed network customers, active prior to March 31, 2018 and subject to billing every 28 days, the possibility of accepting a compensatory solution, an alternative to refunding the eroded days pursuant to AGCom resolution no. 269/18/CONS and from September 2019 it has been accepting requests for reimbursement of eroded days. In both cases, TIM informed customers with several messages in the bill, on the web in the main newspapers. The initiatives just described were communicated to AGCom as part of the aforementioned penalty proceedings.

In the civil proceedings, by judgment published on October 14, 2021 the Court of Milan, under the scope of the case on the merits brought by Associazione Movimento dei Consumatori in 2018 regarding the pricing and 28-day renewal for fixed line and converging offers, confirmed the order given on 6/4/2018 by the same Court upon closure of the complaint brought by TIM pursuant to Art. 669 terdecies of the Italian Code of Civil Procedure and the measures set out therein, ordering TIM to fulfill the requests for repayment of prices paid as a result of customer maneuvers - including discontinued, as indeed TIM had already been doing since 2018, at the same time also extending the period relevant to the recognition of the reimbursement through to April 1, 2017 and therefore earlier than June 23, 2017, the date on which the operators will need to comply with Resolution no. 121/17/CONS. TIM has appealed the sentence of the Court of Milan, at the same time filing an request for suspension of its enforcement. With order of January 11, 2022, the Court of Appeal of Milan partially accepted TIM’s request, suspending the charge in the judgment relating to the order to send a registered letter to all discontinued consumer customers that were subject to billing every 28 days to inform them of the possibility to obtain a refund of the additional amounts paid as a result of the maneuver.

Antitrust Case I820

On February 19, 2018, AGCM (the Italian Competition Authority) initiated a I820 preliminary proceeding against the companies TIM, Vodafone, Fastweb, Wind Tre and the industry association ASSTEL to investigate the alleged existence of an agreement among the major fixed-line and mobile telephone operators to restrict competition by coordinating their respective commercial strategies, in breach of Art. 101 of the TFUE.

The presumed coordination, according to the opening provision of the proceedings by AGCM (the Italian Competition Authority), would take the form of implementation of the obligation introduced by Article 19-quinquiesdecies of Legislative Decree 148/2017 (converted by Law 172/2017) which requires operators of electronic communication services to send out monthly (or monthly multiples) bills and renewed offers for fixed and mobile services.

On March 21, 2018, AGCM (the Italian Competition Authority) issued a provisional precautionary measure against all the operators involved in the proceedings with which it ordered the suspension, pending the proceedings, of the implementation of the agreement concerning the determination of repricing communicated to users at the time of reformulating the billing cycle in compliance with Law 172/17 and to independently redetermine its commercial strategy. With its decision no. 27112 of April 11, 2018, AGCM (the Italian Competition Authority) confirmed the precautionary measure.

On June 12, 2018, TIM filed an appeal with the TAR for the quashing of said measure.

On January 31, 2020, TIM was notified of the decision to close the investigation, in which AGCM (the Italian Competition Authority) confirmed the existence of the agreement between Telecom, Vodafone, Fastweb, WindTre, but excluding Asstel from participation in the agreement. The fine imposed on TIM for participation in the anti-competitive agreement was 114,398,325 euros. In April 2020, TIM also challenged the sanction order.

In a ruling published on July 12, 2021, the Lazio Regional Administrative Court upheld the petition and the grounds added and submitted by TIM, canceling the measures taken by AGCM (the Italian Competition Authority), including that relating to the existence of the agreement and application of the sanction.

On September 11, 2021, AGCM (the Italian Competition Authority) presented a petition to the Council of State, requesting the cancellation of the judgment given by the regional administrative court.

Antitrust Case I850

By decision given on December 15, 2020, the Italian Competition Authority (AGCM) started an investigation in regard to the company Telecom Italia S.p.A., Fastweb S.p.A., Teemo Bidco S.r.l., FiberCop S.p.A., Tiscali Italia S.p.A. and KKR & Co. Inc., to ascertain the existence of any breaches of article 101 of the TFEU.

More specifically, the investigation regards the contracts governing the establishment and operation of FiberCop and the supply agreements with Fastweb and Tiscali. AGCM (the Italian Competition Authority) intends to verify that such agreements do not hinder competition between operators in the medium and long-term and assure the rapid modernization of the country's fixed telecommunications infrastructures.

On August 6, 2021, TIM submitted a proposal of undertakings to AGCM (the Italian Competition Authority) in order to resolve the competition concerns subject of the investigation and close the proceedings without any sanction being applied.

On September 7, 2021, AGCM (the Italian Competition Authority) judged these undertakings to not be clearly unfounded and ruled publication on the Authority's website from September 13, 2021; thus market testing began and was completed by October 13, 2021, the date by which all subjects so wishing submitted their observations to AGCM in respect of the relevant undertakings.

On December 14, 2021 AGCM (the Italian Competition Authority) extended the deadline for the conclusion of the proceedings, initially set for December 31, 2021, to February 15, 2022. Precisely during the meeting held on February 15, 2022, AGCM finally resolved to approve the undertakings insofar as they were considered suitable to eliminate the alleged anti-competition aspects investigated and made them mandatory for the parties without assessing the alleged charges and without sanctions.

Antitrust Case I857

On July 6, 2021, AGCM (the Italian Competition Authority) started an investigation in regard to TIM and DAZN for a possible understanding reached with a view to restricting competition in connection with the agreement for the distribution and technological support for TV rights for Serie A football in the 2021-2024 period.

The investigation also aims to verify the restrictive nature of the understanding with reference to additional elements regarding the possible adoption by TIM of technical solutions not available for competitor telecommunications operators and which may effectively hinder the adoption of their own technological solutions.

The proceedings are expected to end by June 30, 2022.

At the same time, the Authority has also initiated proceedings for the potential adoption of protective measures.

By resolution passed on July 27, 2021, AGCM (the Italian Competition Authority) closed the interim proceedings, considering that the initiatives and amendments to the agreement proposed by TIM and DAZN in the meantime are presently able to prevent any serious and irreparable damage to competitors while investigations are completed.

Indeed, said measures aim, as a whole, to avoid possible discrimination in the use of the DAZN service, due to its activation by users using Internet connection services other than those offered by TIM. In addition, the agreement between TIM and DAZN has been amended to guarantee DAZN complete freedom in applying discounts and promotions. TIM has also undertaken to provide DAZN with a sufficient number of white label set-top-boxes to also guarantee DAZN customers the viewing of matches over digital terrestrial TV, in the event of connection problems.

Finally, TIM has undertaken to supply wholesale services to OAOs interested therein to manage traffic peaks deriving from live data transmissions, regardless of the type of contents transmitted.

On October 29, 2021 TIM submitted a proposal for undertakings to AGCM (the Italian Competition Authority) with a view to resolving the competitive concerns that were the subject of the investigation and closing the proceedings without the finding of any infringement and therefore without any sanction being applied.

On December 14, 2021, AGCM (the Italian Competition Authority) approved the publication of the aforementioned proposal for undertakings on the Authority's website, as these undertakings, taken as a whole, do not appear to be manifestly unfounded and are capable of removing the restrictions to competition hypothesized in the measure initiating the investigation in question.

On January 5, 2022, with the aforementioned publication on the AGCM (the Italian Competition Authority) website, the so-called market test began, which will end on February 4 next, the date by which all interested parties will be able to send the Authority their comments on the undertakings in question.

Antitrust Case PS10888 “TIM Passepartout”

On June 15, 2021, AGCM (the Italian Competition Authority) initiated proceedings for unfair commercial practice concerning the lack of transparency of the information provided by the TIM Passepartout payment management platform and alleged activations of services not requested. The proceedings have been initiated on the basis of reports made by individual consumers and should draw to a close in March 2022. On July 29, 2021, undertakings were submitted, thereafter supplemented on February 08, 2022, that, if accepted, will allow the proceedings to close without any findings of infringement and, therefore, without any application of sanctions. The undertakings consist of improving information aspects of the TIM Passepartout platform (active only for Customer Base offers) and implementing a communication campaign aimed at soliciting contact from those who do not recognize the TIM Passepartout charges in order to assess whether there are grounds for a refund. The procedure will be completed by the end of May 2022.

Vodafone Dispute – Universal Service

In a decision published in July 2015, the Council of State rejected the appeal lodged by AGCom and TIM against the judgment of the Lazio Administrative Court (TAR) on the financing of the universal service obligations for the period 1999–2003. With this judgement the judge had granted the appeals by Vodafone, annulling AGCom decisions 106, 107, 109/11/CONS on the renewal of the related proceedings, which included Vodafone among the subjects required to contribute, for a sum of approximately 38 million euros. Essentially, the judgement confirms that the Authority has not demonstrated the particular degree of "replaceability" between fixed and mobile telephony for mobile operators to be included among the subjects required to repay the cost of the universal service, which means that AGCom needs to issue a new ruling.

TIM has filed an application with AGCom to renew the proceedings, and an appeal against the judgement of the Court of Appeal to the Court of Cassation (which subsequently ruled that the appeal was inadmissible).

In April 2016 Vodafone appealed against the Ministry of Economic Development (MISE) and TIM to the Council of State, for non-compliance with the judgment of the Council of State. This appeal referred to AGCom decision 109/11/CONS (2003 yearly payment, on the basis of which Vodafone had paid the sum of approximately 9 million euros as contribution, restitution of which was requested).

In its judgment of November 2016, the Council of State rejected the appeal, referring to the Regional Administrative Court (TAR) the decision on the methods of compliance. In February 2017, Vodafone presented the Lazio Regional Administrative Court with four new appeals against the Ministry of Economic Development and TIM regarding observance of the ruling, upheld on appeal, countermanding the resolutions for the years 1999–2003 and repayment of the aforesaid amounts of around 38 million euros already paid to the Ministry of Economic Development as a contribution.

With a judgment issued in June 2018, the TAR rejected all of Vodafone's appeals for observance, and, as requested by TIM, expressly affirmed that AGCom must renew the proceedings, particularly with regard to the determination of the degree of replaceability between fixed and mobile telephony. Vodafone challenged the four judgments before the Council of State, which, with a decision of October 2019, upheld Vodafone's appeal and confirmed the restitutory obligation of the sums in question applicable to TIM.

With resolution no. 263/20/CIR, AGCom started proceedings to renew the investigation into the iniquity of the net cost of the universal service for 1999-2009. Vodafone has challenged this resolution before the Regional Administrative Court. The renewal proceedings concluded with resolution 18/21/CIR, which substantively confirmed the draft order. This resolution has only been challenged by TIM for the years 1999 and 2000, while Vodafone, Wind and Fastweb have challenged the resolution for all years concerned. By judgments published in February 2022, resolution 18/21/CIR was partially canceled. Assessments are currently in progress regarding whether it is appropriate or not to submit an appeal.

Dispute relative to "Adjustments on license fees" for the years 1994-1998

With regard to the judgements sought in previous years concerning the Ministry of Communications' request for payment of the balance of the amounts paid in concession charges for the years 1994-1998 (for a total of 113 million euros), the Administrative Court (TAR) for Lazio rejected the Company’s appeal against the request for adjustment of the license fee for 1994 in the amount of approximately 11 million euros, 9 million euros of which against turnover not received due to bad debts. TIM lodged an appeal. On the outcome of proceedings, with the ruling of December 2019, the Council of State partially accepted TIM's position, establishing the principle, according to which, the receivables referring to 1994 not collected for reasons not attributable to the operator, could have been deducted from the tax base for calculating the concession fee.

With two further judgements the Administrative Court (TAR) for Lazio, reiterating the reasons expressed previously, also rejected the appeals in which the Company challenged the requests for payment of outstanding balances of license fees for the years 1995 and 1996-1997-1998, in the amount of approximately 46 million euros. TIM has appealed before the Council of State also against these judgements.

With reference to the 1998 fee adjustment (equal to about 41 million), the Lazio TAR, by TAR order of December 2018, suspended the judgment, raising preliminary questions with the EU Court of Justice on the correct scope of EC Directive no. 97/13 (in the matter of general authorizations and individual licenses in the field of telecommunications services on the basis of the currently pending litigation on the 1998 license fee, currently pending before the Rome Court of Appeal and illustrated in a subsequent paragraph).

The referred questions were based, inter alia, on the question posed to the Court of Justice on the possible conflict between the aforementioned EC Directive 97/13 and national law, which extended the obligation for telecommunications license-holders to pay the license fee for 1998 (commensurate with a portion of turnover), despite the liberalization process underway. In its judgment of March 2020, the EU Court of Justice held that the EU regulatory system must be interpreted as not allowing national legislation to extend to 1998 the obligation imposed on a telecommunications undertaking that was previously the concession holder (such as TIM) to pay a fee calculated on the basis of turnover and not only the administrative costs connected with the granting, management, control and implementation of the general authorizations and individual licenses scheme. The Court held, inter alia, that the Council of State – having held in its judgment 7506/2009 that the fee imposed for 1998 on TIM, the holder of an authorization existing on the date of entry into force of Directive 97/13, was due – interpreted national law in a way that was incompatible with EU law, as interpreted by the Court in its judgment of February 21, 2008. Following the judgment of the EU Court of Justice, the opinion on the final calculation of the 1998 charges was summarized before the Lazio Regional Administrative Court, which, in a judgment given last February, declared TIM's appeal as unacceptable for procedural reasons, namely due to the prevalence of the formal ruling consisting of judgment no. 7506/09; in substantive terms, on the other hand, the judgment of the EU Court of Justice once again ascertained the European Community unlawful nature of the credit claim by the PA to obtain payment of the 1998 charges and, consequently, the final balance. The company has challenged the judgment of the Lazio Regional Administrative Court.

Poste

There are some pending actions brought, at the end of the '90s, by Ing. C. Olivetti & C. S.p.A. (now TIM) against Poste, the Italian postal service, concerning non-payment of services delivered under a series of contracts to supply IT goods and services. The judgements issued in the lower courts established an outcome that was partially favorable to the ex-Olivetti, and have been appealed against by Poste in individual rehearings.

In this respect, while a 2009 judgement of the Rome Appeal Court confirmed one of the outstanding payables to TIM, another judgement by the same Court declared void one of the disputed contracts. After this judgement, Poste had issued a writ for the return of approximately 58 million euros, opposed by TIM given that the judgement of the Supreme Court for amendment of the above judgement is still pending.

After the 2012 judgement of the Supreme Court that quashed and remanded the decision of the Appeal Court on which the order was based, the Rome Court declared that the matter of issue in the enforcement proceedings was discontinued, since the claim made by Poste had been rejected. The judgement was resubmitted to another section of the Rome Appeal Court. In ruling no. 563 of January 25, 2019, the Rome Court of Appeal at the time of proceedings, reversing the Company's previous unfavorable appeal, confirmed the contract's validity and, with it, the legitimacy of TIM's view of the amount already collected, of which Poste had requested reimbursement. This ruling was challenged by Poste with appeal filed with the Court of Cassation, notified on July 31, 2019, which TIM challenged with relevant counter appeal.

Elinet S.p.A. Bankruptcy

In 2014, the trustees in the bankruptcy of Elinet S.p.A., and subsequently the trustees of Elitel S.r.l. and Elitel Telecom S.p.A. (the parent, at the time, of the Elitel group) appealed the judgment by which the Court of Rome dismissed the damages claim brought by the trustees of the Elinet-Elitel group, filing a new damages claim for a total of 282 million euros. The Company is alleged to have exercised management and control powers over the plaintiff, and, with it, over the Elitel group (an OLO in which TIM has never held any equity interest) through the management of trade receivables. TIM filed an appearance, challenging the claims made by the other party. The judgment on the appeal was handed down with ruling in July 2019, which with reference to TIM confirmed full legality of its conduct and total non-existence of any element of management and coordination. The receivers of Elinet S.p.A. and Elitel Telecom S.p.A. appealed to the Court of Cassation in January 2020 to obtain the annulment of the judgment in the second instance. The receiver of Elitel S.r.l. has not filed an appeal with the Court of Cassation and, consequently, the total claim for damages has been reduced to 244 million euros. TIM notified a counterclaim asking confirmation of the ruling appealed against.

Brazil - Opportunity Arbitration

In May 2012, TIM and Telecom Italia International N.V. (now merged in Telecom Italia Finance) were served with a notice of arbitration proceedings brought by the Opportunity group, claiming compensation for damages allegedly suffered for presumed breach of a settlement agreement signed in 2005. Based on the claimant's allegations, the damages relate to circumstances that emerged in the criminal proceedings pending before the Milan Court regarding, *inter alia*, unlawful activities engaged in by former employees of TIM.

The investigatory phase having been completed, the hearing for oral discussion took place in November 2014, after which the parties filed their concluding arguments in preparation for the decision on the case.

In September 2015, the Board of Arbitration declared the proceedings closed, as the award was going to be filed.

In September 2016 the ICC Court notified the parties of its judgment, based on which the Court of Arbitration rejected all the claims made by the Opportunity group and decided that the legal costs, administrative costs and costs for expert witnesses should be split between the parties (the "2016 Arbitration Award").

In April 2017 the Opportunity group filed an appeal against the 2016 Arbitration Award before the Paris Court of Appeal.

In November 2017, TIM and Telecom Italia Finance received from the Secretariat of the ICC's International Court of Arbitration notice of a Request for Revision of the 2016 Arbitration Award, filed by the Opportunity group, asking for a new award. A Board of Arbitration was subsequently established.

In October 2018, TIM and Telecom Italia Finance requested proceedings with the Paris Court of Appeal to be suspended, in the light of proceedings pending with the Court of Arbitration of the International Chamber of Commerce to review the same 2016 Arbitration Award. In November 2018, the Paris Court of Appeal suspended the proceedings until the decision is taken by the Court of Arbitration in the review proceedings.

As regards the proceedings to review the 2016 Arbitration Award, in October 2019 the ICC held the discussion hearing in Paris. In August 2020, the Arbitration Court issued the award rejecting the Request for Revision presented by the Opportunity Group (the "2020 Arbitration Award"). In December 2020, the Opportunity group filed an appeal against the 2020 Arbitration Award before the Paris Court of Appeal. In May 2021 the Opportunity group asked the Paris Court of Appeal to summarize the proceedings brought against the 2016 Arbitration Award.

Iliad

By summons served during the first quarter of 2020, Iliad Italia S.p.A. sued TIM before the Court of Milan for alleged anti-competitive conduct, including through the Kena Mobile brand, which was allegedly aimed at hindering its entry to and consolidation in the mobile phone market in Italy, seeking damages of at least 71.4 million euros.

TIM filed an appearance, fully disputing the requests of Iliad Italia S.p.A.; and, in turn, submitting a counterclaim in accordance with Art. 2598 of the Italian Civil Code, with reference to the denigration implemented by Iliad Italia S.p.A. in regard to TIM and formulating a symmetrical claim for compensation for damages. In the first preliminary brief, Iliad updated its claim for damages, taking it to 242.8 million euros. Upon lifting the reservation on the preliminary motions, the Court adjourned the hearing to May 4, 2022 for the closing arguments.

Iliad

By writ of summons notified in September 2021, Iliad Italia S.p.A. summonsed TIM before the Court of Milan for the alleged application to customers of unlawful contractual conditions in terms of time limits and economic costs for withdrawal with reference to mobile and fixed telephone offers, with a consequent petition to order TIM to compensate damages, currently quantified as 120.4 million euros. On February 1, 2022, the first hearing was held and the terms assigned for the briefs pursuant to article 183, subsection VI of the Italian Code of Civil Procedure.

T-Power

By writ of summons notified in December 2021, T-Power s.r.l., former Agent for the consumer sector, summonsed TIM before the Court of Rome to have the right acknowledged to receive payment of a total maximum amount of approximately 85 million euros by way of commission, compensation in lieu of notice and termination of employment, as well as compensation for damages. The first hearing is scheduled for April 27, 2022.

b) Other information

Mobile telephony - criminal proceedings

In March 2012 TIM was served notice of the conclusion of the preliminary inquiries, which showed that the Company was being investigated by the Public Prosecutor of Milan pursuant to the Legislative Decree n. 231/2001, for the offenses of handling stolen goods and counterfeiting committed, according to the alleged allegations, by fourteen employees of the so-called “ethnic channel”, with the participation of a number of dealers, for the purpose of obtaining undeserved commissions from TIM.

The Company, as the injured party damaged by such conduct, had brought two legal actions in 2008 and 2009 and had proceeded to suspend the employees involved in the criminal proceedings (suspension later followed by dismissal). It has also filed an initial statement of defense, together with a technical report by its own expert, requesting that the proceedings against it be suspended, and that charges of aggravated fraud against the Company be brought against the other defendants. In December 2012, the Public Prosecutor's Office filed a request for 89 defendants and the Company itself to be committed for trial.

During the preliminary hearing, the Company was admitted as civil party to the trial and, in November 2013, the conclusions in the interest of the civil party were filed, reaffirming TIM's total lack of involvement in the offenses claimed.

At the end of the preliminary hearing, which took place in March 2014, the Judge for the Preliminary Hearing committed for trial all the defendants (including TIM) who had not asked for their situation to be settled with alternative procedures, on the grounds that “examination in a trial” was needed. In April 2016, at the end of the first part of the trial, the Public Prosecutor asked for TIM to be sentenced to pay an administrative fine of 900 thousand euros, but decided not to ask for confiscation of any of the presumed profits of the offenses (quantified in the committal proceedings as totaling several million euros), based on the assumption that TIM had in any event remedied the presumed organizational inadequacies. While acknowledging the considerable redimensioning of the accusations, the Company has reiterated its total non-involvement in the facts at issue. In November 2016 the Court gave a verdict acquitting the Company on the grounds that there was no case to answer. All the individuals charged were also acquitted on various grounds.

The Public Prosecutor appealed the acquittal and appealed to the Court of Cassation "per saltum”. In January 2019, the Italian Supreme Court of Cassation agreed to the appeal and therefore ordered that the documents of the proceedings be sent to the Milan Court of Appeal.

The proceedings were assigned to Chambers IV of the Milan Court of Appeal and are awaiting scheduling of the hearing.

Dispute concerning the license fees for 1998

TIM has issued civil proceedings against the office of the Prime Minister for compensation of the damage caused by the Italian State through appeal judgement no.7506/09 by the Council of State that, in the view of the Company, violates the principles of current European community law.

The main claim which the proceedings are founded on is based on community jurisprudence that recognizes the right to assert the responsibility of the State in relation to violation of rights recognized in community law and injured by a judgement that has become definitive, in respect of which no other remedy may be applied. The judgement of the Council of State definitively denied TIM the right to obtain restitution of the concession charge for 1998 (totaling 386 million euros for Telecom Italia and 143 million euros for the former TIM Company, plus interest), already denied by the Lazio regional administrative court despite the favorable and binding opinion of the European Court of Justice in February 2008. This judgement concerned the conflict between EC Directive 97/13 on general authorizations and individual licenses in the telecommunications services industry, and the national regulations that had deferred, for 1998, the obligation to pay the fee payable by telecommunications concession holders, despite the intervening deregulation process. The Company then proposed an alternative compensation claim, within the sphere of the same proceedings, for tort pursuant to art. 2043 of the Italian Civil Code. The compensation claimed has been quantified as approximately 529 million euros, plus legal interest and revaluation. The Avvocatura di Stato filed an appearance and submitted a counterclaim for the same sum. The case is subject to eligibility analysis by the Court, which declared the inadmissibility of TIM's main claim (case for damages for manifest breach of community law pursuant to law 117/88). However, this decision was amended in favor of the Company on appeal. In March 2015 the Rome Court issued its judgment in the first instance, declaring the Company's application inadmissible. In 2015, TIM appealed this decision and the judgment is pending in the closing arguments. The Court of Appeal has scheduled the hearing for the closing arguments for April 2, 2019. Thereafter, without any new procedural activities having taken place, the Court of Appeal incontrovertibly deferred the hearing for closing arguments first to 2020 and then to 2021 (from when the terms for conclusion and replies shall run, which will be followed shortly thereafter by the issue of the judgment). These deferrals were followed by the latest, of January 15, 2021, scheduling the new hearing for January 25, 2022.

On the matters underlying the case, the following must be noted:

- on the considered lack of jurisdiction of the Court of Rome (concerned by the judgment of the Court of Rome appealed by TIM) to judge the liability of the Italian government for the work of senior magistrates (in the case in point, the Council of State), which would have led to the declared inadmissibility of the claim in accordance with Art. 5, law no. 117/1978 (old text) - the United Chambers of the Court of Cassation ruled with judgment no. 14842 on June 7, 2018, confirming the jurisdiction of the Court of Rome and, therefore, the correctness of TIM's choice to base its lawsuit in the Court of Rome;
- on the unlawful nature of the conduct of the Italian government - and, therefore, on the liability of the State-Court in accordance with Law no. 117/1998 - once again, the EU Court of Justice has ruled, deciding on the prejudicial matter raised by the Lazio TAR in other, connected proceedings, in its judgment given on March 4, 2020 in C-34/19, stressing that TIM was not required to pay the charges demanded by the State for 1998 and, therefore, confirming the clear violation by the Council of State of European Community law (also because in clear conflict with the decision already given by the EU Court of Justice on February 21, 2008 in C-296/06, as, moreover, already ruled by the Court of Appeal of Rome, Chambers I, in Decree of January 31, 2012, which sanctioned the procedural admissibility of TIM's lawsuit);
- on the matter of the right to repeat the charges paid for 1998 - the Court of Cassation ruled in its judgment no. 18603 given on September 7, 2020, rejecting the appeal brought by the Presidency of the Council against the judgment whereby the Court of Appeal of Rome had upheld the claim for compensation made by Vodafone (payment of charges for 1998) for the same title in separate proceedings.

In short, the Company paid the charges disputed in 1998; it promptly challenged the administrative provision that had unfairly required said payment, before the administrative court; the administrative proceedings before the Council of State concluded negatively in 2009 (despite the recalled opposite judgment of the European Court of Justice); the civil proceedings of first instance concluded in March 2015 with a judgment of rejection for grounds of admissibility (then solved in the sense indicated by the company with the referenced judgment of Cassation in United Chambers no. 14842/18) and more than 6 years after the first instance judgment - going from deferral to deferral - the appeal judgment (that could only uphold the mentioned judgments of the Court of Justice and the Court of Cassation) has not yet been issued (nor, on the basis of these repeated deferrals, can the company forecast when it will be given).

The Company is examining the various scenarios and legal claims (national, European Community, etc.) that may contribute towards defining the appeal dispute. It is considered, in fact, that the principles of the reasonable duration of the trial, in accordance with subsection 2 of article 111 of the Constitution and in accordance with article 6 of the European Convention on Human Rights, are violated by these events, considering: (i) the year in which payment was made of the undue charges is 1998; (ii) the value of these charges is approximately 529 million euros plus interest from that date; (iii) the extremely long procedural process has not even led to an appeal judgment (started in 2015 and with an unpredictable conclusion, given the continuous deferrals); (iv) the circumstance that the legal matter appears to be readily able to be settled, as not one but two judgments have already been given by the EU Court of Justice declaring payment of the charges to be incompatible with European Community legislation (judgments that have currently been ignored by the national court).

As part of the aforementioned analyzes aimed at reaching a definition of the appeal sentence, it should be pointed out that on January 25, 2021 the Company filed a request with the Rome Court of Appeal to bring forward the hearing (postponed, as mentioned, to January 25, 2022) in order to avoid yet another postponement of the case, which, as we know, concerns the non-compliance with two inter partes decisions, on the same matter, by the Court of Justice of the European Union for a clear violation of European law by the State-Judge. With a ruling on February 8, 2021, the Rome Court of Appeal (second section specializing in corporate matters) deemed it could grant the request for an advance ruling, setting the hearing for November 30, 2021. On that date the case was taken to decision with the assignment of the legal terms for closing statements and replies.

Vodafone (previously TELETU)

By writ of summons of February 2012, TIM summonsed the operator TeleTu (today incorporated into Vodafone) to the Court of Rome for having unduly impeded customers intending to return to TIM. The damages claim has been quantified for approximately 93 million euros. By judgment of December 2020, the Court ascertained that from July 2008 to October 2011, TELETU pursued illegal competition pursuant to art. 2598 of the Italian Civil Code in connection with requests for migration to TIM, ordering it to compensate TIM for the amount of 1,378,000 euros plus interest and revaluation, which was paid by Vodafone. As part of a global settlement with Vodafone, the parties have agreed to abstain from challenging this judgment.

c) Commitments and guarantees

Personal guarantees provided, totaling 5,546 million euros, refer mainly to guarantee financing provided by TIM on behalf of Subsidiaries (including 3,532 million euros for Telecom Italia Capital, 1,348 million euros for Telecom Italia Finance, 281 million euros for Telecom Italia Sparkle, 128 million euros for Telenergia, 84 million euros for FiberCop and 107 million euros for Olivetti).

Significant purchase commitments outstanding at December 31, 2021 for long-term contracts forming part of TIM S.p.A.'s business operations, totaling around 5.4 billion euros, mainly related to the commitments undertaken by the Company for supplies related to the operation of the telecommunications network.

The guarantees provided by third parties to Group companies, amounting to 4,362 million euros, refer for 3,493 million euros to the related to guarantees provided by banks and other financial institutions as a guarantee of the proper performance of contractual obligations and for 869 million euros to insurance guarantees. In particular, we report:

- the insurance guarantees, which totaled 869 million euros, mainly refer to guarantee financing by TIM in applying legal provisions for contracts of Public Administrations and similar bodies;
- the Company had six bank guarantees issued in favor of the Ministry of Economic Development for a total of 1,922 million euros for the deferment of the payment of the amount due for the acquisition of the user rights to frequencies in the 694-790 MHz, 3600-3800 MHz and 26.5-27.5 GHz bands, which will be reserved for 5G mobile telecommunications services. At December 31, 2021, the remaining guarantee was 1,738 million euros;
- TIM had bank guarantees issued in favor of INPS to support the application - also for some Group companies - of Article 4, paragraph 1, of Law 92 of June 28, 2012, to incentivize the departure of workers meeting the necessary requirements; the total amount of guarantees is 1,422 million euros (of which 35 million euros for Telecom Italia Sparkle and 18 million euros for Olivetti).

Furthermore, in May 2018, TIM issued a surety to the Prime Minister's Office for 74.3 million euros to secure an appeal to the Lazio Administration Court for a provisional stay of the administrative fine levied on TIM following the preliminary investigation connected with the penalty proceeding initiated under Article 2 of Decree Law 21 of 3/15/2012 (the "Golden Power" law).

NOTE 24
REVENUES

These increased by 367 million euros compared to 2020. The breakdown is as follows:

(million euros)	2021	2020
Equipment sales	1,746	1,271
Services	10,651	10,759
Total	**12,397**	**12,030**

Revenues from services are mainly represented by voice and data services on fixed and mobile networks for retail customers (7,713 million euros) and for other wholesale operators (2,207 million euros).

Revenues are presented gross of amounts due to other TLC operators (608 million euros), which are included in "Costs of services".

NOTE 25
OTHER INCOME

This increased by 133 million euros and the figure breaks down as follows:

(million euros)	2021	2020
Late payment fees charged for telephone services	29	40
Recovery of employee benefit expenses, purchases and services rendered	33	16
Capital and operating grants	26	31
Damages, penalties and recoveries connected with litigation	22	17
Estimate revisions and other adjustments	71	59
Special training income	66	13
Other	75	13
Total	**322**	**189**

NOTE 26

ACQUISITION OF RAW MATERIALS AND SERVICES

These increased by 2,148 million euros compared to 2020. The figure breaks down as follows:

(million euros)		2021	2020
Acquisition of raw materials and goods	**(a)**	**1,053**	**926**
Costs of services			
Revenues due to other TLC operators		608	591
Costs for telecommunications network access services		99	101
Commissions, sales commissions and other selling expenses		993	827
Advertising and promotion expenses		137	130
Professional and consulting services		104	114
Utilities		342	353
Maintenance costs		360	277
Outsourcing costs for other services		413	388
Mailing and delivery expenses for telephone bills, directories and other materials to customers		30	33
Distribution and logistics		8	7
Travel and lodging costs		5	6
Insurance		23	33
Other service expenses		2,171	519
	(b)	**5,293**	**3,379**
Lease and rental costs			
Rent and leases		3	5
Other lease and rental cost		410	301
	(c)	**413**	**306**
Total	**(a+b+c)**	**6,759**	**4,611**

In application of IFRS 16, leased asset costs mainly included lease fees for contracts relating to intangible assets (409 million euros, mainly for software licenses and royalties).

Specifically, Other service expenses mainly includes costs due to external companies to set up network accesses as party of the delivery agreements in place with Group companies (such as FiberCop), as well as facility and maintenance costs.

In 2021, non-recurring operating costs were incurred in reference to procurement and various costs for approximately 4 million euros, which became necessary for the management of the COVID-19 health emergency, mainly due to the acquisition of personal protection equipment and thermoscanners, and costs for environmental hygiene services. Further details are provided in the Note "Significant non-recurring events and transactions" of the Separate Financial Statements at December 31, 2021 of TIM S.p.A.

NOTE 27
EMPLOYEE BENEFITS EXPENSES

These decreased by 260 million euros compared to 2020. The figure breaks down as follows:

(million euros)		2021	2020
Ordinary employee expenses			
Wages and salaries		1,445	1,496
Social security costs		538	556
Employee Severance Indemnity		—	(1)
Other employee benefits		134	106
	(a)	**2,117**	**2,157**
Costs and provisions for temp work	**(b)**	**—**	**—**
Miscellaneous expenses for personnel and other labor-related services rendered			
Charges for termination benefit incentives		—	—
Corporate restructuring expenses		333	35
Other		3	1
	(c)	**336**	**36**
Total	**(a+b+c)**	**2,453**	**2,193**

"**Ordinary employee expenses**" decreased by 40 million euros, mainly due to the decrease in the average salaried workforce equal to a total of -2,192 employees on average.

"**Company restructuring expenses**" come to 333 million euros (35 million euros in 2020) and are mainly related to the recording of period expenses, following the application of the trade union agreements stipulated between the Company and the trade unions on March 8, 2021 and on April 23, 2021.

In 2021, non-recurring costs were incurred for approximately 1 million euros, made necessary to address the COVID-19 health emergency. Further details are provided in the Note "Significant non-recurring events and transactions" of the Separate Financial Statements at December 31, 2021 of TIM S.p.A.

The average salaried workforce stood at 34,529 employees at December 31, 2021 (36,621 at December 31, 2020). A breakdown by category is as follows:

(number of units)	2021	2020
Executives	456	458
Middle managers	3,255	3,320
Workers	30,818	32,843
Blue collars	—	—
Employees on payroll	**34,529**	**36,621**
Employees with temp work contracts	—	—
Total headcount	**34,529**	**36,621**

The headcount at December 31, 2021 amounted to 37,064 employees, a decrease of 1,452 compared to December 31, 2020 (38,516).

NOTE 28
OTHER OPERATING EXPENSES

These increased by 574 million euros compared to 2020. The figure breaks down as follows:

(million euros)	2021	2020
Write-downs and expenses in connection with credit management	217	328
Provision charges	674	1
TLC operating fees and charges	41	42
Indirect duties and taxes	58	53
Penalties, settlement compensation and administrative fines	127	120
Association dues and fees, donations, scholarships and traineeships	10	10
Other	52	51
Total	**1,179**	**605**
of which, included in the supplementary disclosure on financial instruments	*217*	*328*

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

In 2021, non-recurring operating costs were incurred for 20 million euros, mainly referring to provisions and expenses connected with credit management deriving from the deterioration of the macroeconomic context as a consequence of the COVID-19 pandemic. Further details are provided in the Note “Significant non-recurring events and transactions” of the Separate Financial Statements at December 31, 2021 of TIM S.p.A.

NOTE 29
CHANGE IN INVENTORIES

This item came to a positive 21 million euros (negative 11 million euros at December 31, 2020), and was mainly attributable to a purchasing trend during the year that was higher than that of consumption, on the Fixed segment.
In 2021, write-downs of inventories amounted to around 5 million euros.

NOTE 30
INTERNALLY GENERATED ASSETS

Internally generated assets amounted to 288 million euros, down by 93 million euros on 2020. These consist solely of capitalization of both tangible and intangible assets on the cost of labor, and, specifically:

- 146 million euros relating to “intangible assets with a finite useful life”, mainly relating to development of software and network solutions, applications and innovative services;
- 142 million euros relating to the “tangible assets” connected with design, construction and testing of network infrastructure and systems.

This performance was attributable to lower capitalization relating to both tangible assets for the installation of access and carrier networks (-59 million euros) and to intangible assets for the development of software and innovative services and network solutions (-34 million euros). Lower capitalization mainly derives from the afore-mentioned conferrals to FiberCop S.p.A. and Noovle S.p.A.. Moreover, the tangible asset component was impacted by the decrease in the average hourly cost of -1 million euros.

NOTE 31
DEPRECIATION AND AMORTIZATION

These decreased by 586 million euros compared to 2020 and was broken down as follows:

(million euros)		2021	2020
Amortization of intangible assets with a finite useful life			
Industrial patents and intellectual property rights		732	910
Concessions, licenses, trademarks and similar rights		380	379
Other intangible assets		—	1
	(a)	**1,112**	**1,290**
Depreciation of tangible assets owned			
Buildings (civil and industrial)		28	33
Plant and equipment		1,338	1,623
Manufacturing and distribution equipment		9	11
Other		57	83
	(b)	**1,432**	**1,750**
Amortization of rights of use assets			
Rights of use Concessions, Licenses, Trademarks and Similar Rights		1	—
Property		288	402
Plant and equipment		136	111
Other		27	29
	(c)	**452**	**542**
Total	**(a+b+c)**	**2,996**	**3,582**

For further details refer to the Notes "Intangible assets with a finite useful life", "Tangible assets" and "Rights of use assets".

NOTE 32

GAINS/(LOSSES) ON DISPOSALS OF NON-CURRENT ASSETS

This item was broken down as follows:

(million euros)		2021	2020
Gains on disposals of non-current assets			
Gains on the retirement/disposal of intangible, tangible and user rights on rental		7	30
	(a)	**7**	**30**
Losses on disposals of non-current assets			
Losses on the retirement/disposal of intangible, tangible and user rights on rental		50	44
	(b)	**50**	**44**
Total	**(a-b)**	**(43)**	**(14)**

NOTE 33

IMPAIRMENT REVERSALS (LOSSES) ON NON-CURRENT ASSETS

The item is negative for 4,120 million euros (negative for 8 million euros in 2021), following the impairment of goodwill attributed to the domestic BUs.

In accordance with IAS 36, goodwill is not subject to amortization, but is tested for impairment on at least an annual basis, when preparing the company's separate financial statements.

Further details are provided in the Note "Goodwill".

NOTE 34
INCOME/(EXPENSES) FROM INVESTMENTS

Details are as follows:

(million euros)	2021	2020
Dividends	837	331
Net gains on disposals of investments	9	227
Losses on disposals of investments	—	—
Other income from investments	10	—
Impairment losses on financial assets	(7)	(7)
Sundry expenses from investments	(15)	—
Total	**834**	**551**
of which, included in the supplementary disclosure on financial instruments	*—*	*1*

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

In particular, we report:

- dividends mainly related to the subsidiaries Telecom Italia Sparkle (400 million euros), Telecom Italia Finance (436 million euros). In 2020 dividends mainly referred to the subsidiary Telecom Italia Finance (75 million euros) and the associated company INWIT S.p.A. (256 million euros);
- net capital gains (9 million euros) refer to the sale of 37.5% of the investment in the subsidiary FiberCop to the KKR fund (gross capital gain of 17 million euros, net of accessory charges for 8 million euros). In 2020, these referred to the dilution of TIM's investment in INWIT S.p.A.'s capital from 60% to 37.5%, following the merger of INWIT with Vodafone Towers;
- other income from investments refers to the reversal to extraordinary income of several provisions relating to investments;
- impairment losses referred mainly to the impairment of investment in the subsidiary Telecom Italia Ventures. In 2020 impairment losses referred mainly to the impairment of investment in the subsidiary Olivetti.
- sundry expenses from investments refer to the impact of the valuation of the economic value at 2021 of the earn-in clause, envisaged in the Transaction Agreement signed by TIM and Teemo Bidco at the time of the FiberCop transaction, on which basis - if the target total FTTH/FTTB accesses activated on FiberCop network at December 31, 2026 should not be achieved - TIM is to transfer to Teemo Bidco, at no additional cost, a number of shares ranging between 0% and 7.5% of the share capital of FiberCop, which in any case does not prejudice TIM's control over FiberCop.

NOTE 35
FINANCE INCOME AND EXPENSES

Finance income (expenses) show a net expense of 908 million euros, which breaks down as follows:

(million euros)	2021	2020
Finance income	1,076	1,012
Finance expenses	1,984	1,973
Total net financial income (expenses)	**(908)**	**(961)**

The items break down as follows:

(million euros)		2021	2020
Interest expenses and miscellaneous finance expenses			
Interest expenses and other costs relating to bonds		(525)	(563)
Interest expenses relating to subsidiaries		(158)	(166)
Interest expenses relating to associates		—	—
Interest expenses to banks		(34)	(47)
Financial charges on lease liabilities		(132)	(145)
Interest expenses to others		(2)	(1)
		(851)	**(922)**
Commissions		(52)	(54)
Miscellaneous finance expenses (*)		(61)	(74)
		(113)	**(128)**
Interest income and other finance income:			
Interest income		12	30
Interest income from subsidiaries		1	3
Interest income from associates		—	—
Income from financial receivables, recorded in Non-current assets		8	2
Income from financial receivables from subsidiaries, recorded in Non-current assets		95	8
Income from financial receivables from associates, recorded in Non-current assets		—	—
Income from securities other than investments, recorded in Non-current assets		—	—
Income from securities other than investments, recorded in Current assets (*)		4	4
Miscellaneous finance income		21	7
		141	**54**
Total net finance interest/(expenses)	**(a)**	**(823)**	**(996)**
Other components of financial income and expense:			
Net exchange gains and losses		1	(2)
Net result from derivatives		(57)	(48)
Net fair value adjustments to fair value hedge derivatives and underlyings		(4)	2
Net fair value adjustments to non-hedging derivatives		(25)	83
Total other components of financial income and expense:	**(b)**	**(85)**	**35**
Total net financial income (expenses)	**(c)=(a+b)**	**(908)**	**(961)**
of which, included in the supplementary disclosure on financial instruments		*(691)*	*(704)*

(*) of which IFRS 9 impact:

(million euros)	2021	2020
Income from negative adjustment of IFRS 9 impairment reserve on financial assets through FVTOCI	—	—
Expenses from positive adjustment of IFRS 9 impairment reserve on financial assets through FVTOCI	—	—
Reversal of IFRS 9 impairment reserve on financial assets through FVTOCI	—	—
Impairment losses on financial assets other than investments	—	—

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

For greater clarity of presentation, the net effects relating to derivative financial instruments are summarized in the following table:

(million euros)		2021	2020
Foreign currency conversion gains		10	8
Exchange losses		(9)	(10)
Net exchange gains and losses		**1**	**(2)**
Income from fair value hedge derivatives		33	47
Charges from fair value hedge derivatives		—	—
Net result from fair value hedge derivatives	**(a)**	**33**	**47**
Positive effect of the reversal of the Reserve for fair value adjustment of cash flow hedge derivatives to the income statement (interest rate component)		113	118
Negative effect of the reversal of the Reserve of cash flow hedge derivatives to the income statement (interest rate component)		(215)	(213)
Net effect of the Reversal of the Reserve of cash flow hedge derivatives to the income statement (interest rate component)	**(b)**	**(102)**	**(95)**
Income from non-hedging derivatives		276	285
Charges from non-hedging derivatives		(264)	(285)
Net result from non-hedging derivatives	**(c)**	**12**	**—**
Net result from derivatives	**(a+b+c)**	**(57)**	**(48)**
Positive fair value adjustments to fair value hedge derivatives		—	45
Negative fair value adjustments relating to financial assets and liabilities underlying fair value hedge derivatives		—	(44)
Net fair value adjustments	**(d)**	**—**	**1**
Positive fair value adjustments to Underlying financial assets and liabilities of fair value hedge derivatives		50	6
Negative fair value adjustments relating to fair value hedge derivatives		(54)	(5)
Net fair value adjustments	**(e)**	**(4)**	**1**
Net fair value adjustments to fair value hedge derivatives and underlyings	**(d+e)**	**(4)**	**2**
Positive fair value adjustments to non-hedging derivatives	(f)	453	449
Negative fair value adjustments to non-hedging derivatives	(g)	(478)	(366)
Net fair value adjustments to non-hedging derivatives	**(f+g)**	**(25)**	**83**

NOTE 36
RELATED-PARTY TRANSACTIONS

The following tables show the balances relating to related-party transactions and the impact of those amounts on the separate income statement, statement of financial position and statement of cash flows of TIM S.p.A..

Related-party transactions, when not dictated by specific laws, were conducted at arm's length. They were performed in compliance with the internal procedure, which sets forth rules designed to ensure the transparency and fairness of the transactions in accordance with Consob Regulation 17221/2010. The current procedure is available on the website gruppotim.it, under the Group section/Governance System channel.

For an analysis of transactions with subsidiaries and associates of TIM S.p.A. refer to the Note "Investments".

It should be noted that during the second half of 2021, Cassa Depositi e Prestiti and its subsidiaries were included in the scope of related companies, on the basis of assessments in this regard performed by the TIM S.p.A. Related Parties Committee.

The effects of related-party transactions on the line items of the separate income statements for 2021 and 2020 are as follows:

SEPARATE INCOME STATEMENT LINE ITEMS 2021

(million euros)	Total	Related Parties						
		Subsidiaries	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Key managers	**Total related parties**	% of financial statement item
	(a)						(b)	(b/a)
Revenues	12,397	1,074	26	22	—	—	**1,122**	9.1
Other income	322	88	1	—	—	—	**89**	27.6
Acquisition of goods and services	6,759	1,996	350	79	—	—	**2,425**	35.9
Employee benefits expenses	2,453	—	—	—	64	32	**96**	3.9
Other operating expenses	1,179	—	3	—	—	—	**3**	0.3
Depreciation and amortization	2,996	25	50	—	—	—	**75**	2.5
Gains/losses on disposals of non-current assets	(43)	(40)	—	—	—	—	**(40)**	93.0
Income (expenses) from investments	834	836	—	—	—	—	**836**	100.2
Finance income	1,076	373	—	—	—	—	**373**	34.7
Finance expenses	1,984	654	18	—	—	—	**672**	33.9

(*) Vivendi Group and companies belonging to the group that it belongs to; Cassa Depositi e Prestiti Group and its subsidiaries; other related parties through Directors, Statutory Auditors and Key Managers.

SEPARATE INCOME STATEMENT LINE ITEMS 2020

(million euros)	Total	Related Parties						
		Subsidiaries	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Key managers	**Total related parties**	% of financial statement item
	(a)						(b)	(b/a)
Revenues	**12,030**	248	60	3	—	—	311	2.6
Other income	**189**	7	1	—	—	—	8	4.2
Acquisition of goods and services	**4,611**	688	249	78	—	—	1,015	22.0
Employee benefits expenses	**2,193**	—	—	—	64	14	78	3.6
Other operating expenses	**605**	—	2	—	—	—	2	0.3
Depreciation and amortization	**3,582**	103	39	—	—	—	142	4.0
Gains/losses on disposals of non-current assets	**(14)**	3	—	—	—	—	3	(21.4)
Income (expenses) from investments	**551**	75	256	—	—	—	331	60.1
Finance income	**1,012**	320	—	—	—	—	320	31.6
Finance expenses	**1,973**	559	15	—	—	—	574	29.1

(*) Vivendi group and Companies belonging to the group that it belongs to; other related parties through directors, statutory auditors and key managers.

The effects of related-party transactions on the line items of the statements of financial position as at December 31, 2021 and December 31, 2020 are as follows:

STATEMENT OF FINANCIAL POSITION LINE ITEMS AT December 31, 2021

(million euros)	Total	Related Parties					
		Subsidiaries	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Total related parties	% of financial statement item
	(a)					(b)	(b/a)
NET FINANCIAL DEBT							
Non-current financial assets	**4,449**	**2,669**	**—**	**1**	**—**	**2,670**	60.0
of which: Non-current financial assets for lease contracts	*11*	—	—	*1*	—	***1***	*9.1*
Securities other than investments (current assets)	—	—	—	—	—	**—**	—
Financial receivables and other current financial assets	155	17	—	—	—	**17**	11.0
of which: Current financial assets for lease contracts	*39*	*4*	—	—	—	***4***	*10.3*
Cash and cash equivalents	3,558	26	—	—	—	**26**	0.7
Current financial assets	**3,713**	**43**	**—**	**—**	**—**	**43**	1.2
Non-current financial liabilities	24,620	5,567	269	—	—	**5,836**	23.7
of which: Non-current financial liabilities for lease contracts	*2,743*	*29*	*269*	—	—	***298***	*10.9*
Current financial liabilities	5,479	485	75	—	—	**560**	10.2
of which: Current financial liabilities for lease contracts	*434*	*6*	*73*	—	—	***79***	*18.2*
Total net financial debt	**21,937**	**3,340**	**344**	**(1)**	**—**	**3,683**	16.8
OTHER STATEMENT OF FINANCIAL POSITION LINE							
Rights of use assets	3,320	189	299	—	—	**488**	14.7
Miscellaneous receivables and other non-current assets	1,974	247	—	—	—	**247**	12.5
Trade and miscellaneous receivables and other current assets	3,931	737	17	20	—	**774**	19.7
Miscellaneous payables and other non-current liabilities	1,196	10	2	23	—	**35**	2.9
Trade and miscellaneous payables and other current liabilities	8,111	681	177	44	21	**923**	11.4

(*) Vivendi Group and companies belonging to the group that it belongs to; Cassa Depositi e Prestiti Group and its subsidiaries; other related parties through Directors, Statutory Auditors and Key Managers.

STATEMENT OF FINANCIAL POSITION LINE ITEMS AT December 31, 2020

(million euros)	**Total**	**Related Parties**					
		Subsidiaries	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	**Total related parties**	% of financial statement item
	(a)					**(b)**	**(b/a)**
NET FINANCIAL DEBT							
Non-current financial assets	**2,507**	**658**	**—**	**—**	**—**	**658**	26.2
of which: Non-current financial assets for lease contracts	***17***	**—**	**—**	**—**	**—**	**—**	**—**
Securities other than investments (current assets)	**—**	—	—	—	—	**—**	—
Financial receivables and other current financial assets	**154**	13	—	—	—	**13**	8.4
of which: Current financial assets for lease contracts	***44***	*3*	—	—	—	***3***	*6.8*
Cash and cash equivalents	**1,766**	92	—	—	—	**92**	5.2
Current financial assets	**1,920**	**105**	**—**	**—**	**—**	**105**	5.5
Non-current financial liabilities	**27,946**	6,162	313	—	—	**6,475**	23.2
of which: Non-current financial liabilities for lease contracts	***3,506***	*497*	*313*	—	—	***810***	*23.1*
Current financial liabilities	**3,805**	307	50	—	—	**357**	9.4
of which: Current financial liabilities for lease contracts	***463***	*14*	*50*	—	—	***64***	*13.8*
Total net financial debt	**27,324**	**5,706**	**363**	**—**	**—**	**6,069**	22.2
OTHER STATEMENT OF FINANCIAL POSITION LINE ITEMS							
Rights of use assets	**4,096**	541	347	—	—	**888**	21.7
Miscellaneous receivables and other non-current assets	**1,733**	131	—	—	—	**131**	7.6
Trade and miscellaneous receivables and other current assets	**3,464**	239	39	3	—	**281**	8.1
Miscellaneous payables and other non-current liabilities	**3,477**	159	2	—	—	**161**	4.6
Trade and miscellaneous payables and other current liabilities	**5,610**	341	101	36	20	**498**	8.9

(*) Vivendi group and Companies belonging to the group that it belongs to; other related parties through directors, statutory auditors and key managers.

The effects of related-party transactions on the significant line items of the statements of cash flows for 2021 and 2020 are as follows:

STATEMENT OF CASH FLOWS LINE ITEMS 2021

(million euros)	Total	Related Parties					
		Subsidiaries	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	**Total related parties**	% of financial statement item
	(a)					**(b)**	**(b/a)**
Purchases of intangible assets, tangible assets and right of use assets on an accrual basis	2,547	77	8	15	—	**100**	3.9
Dividends paid	318	1	—	51	—	**52**	16.4

(*) Vivendi Group and companies belonging to the group that it belongs to; Cassa Depositi e Prestiti Group and its subsidiaries; other related parties through Directors, Statutory Auditors and Key Managers.

STATEMENT OF CASH FLOWS LINE ITEMS 2020

(million euros)	**Total**	Related Parties					
		Subsidiaries	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	**Total related parties**	% of financial statement item
	(a)					**(b)**	**(b/a)**
Purchases of intangible assets, tangible assets and right of use assets on an accrual basis	**3,374**	188	378	—	—	**566**	16.8
Dividends paid	**317**	1	—	36	—	**37**	11.8

(*) Vivendi group and Companies belonging to the group that it belongs to; other related parties through directors, statutory auditors and key managers.

Transactions with subsidiaries

The main transactions that involved the subsidiaries of TIM S.p.A. include two conferrals to Noovle S.p.A. (January 1, 2021) and FiberCop S.p.A. (March 31, 2021), as well as the merger of Flash Fiber into FiberCop, which took place on March 31, 2021 with retroactive effect from January 1, 2021. Further details are provided in the Note "Investments". The most significant amounts are summarized as follows:

SEPARATE INCOME STATEMENT LINE ITEMS

(million euros)	2021	2020	Type of contract
Revenues			
FiberCop S.p.A.	904	—	Carrying out of works on behalf of FiberCop on developments of secondary copper and fiber network, ordinary and extraordinary maintenance services on the secondary copper and fiber network, fee income for administrative services connected with the IRU transfer and acquisition of secondary access network installation infrastructures, supply of ERP, separation, desktop management, TSA and voice services
Flash Fiber S.r.l.	—	104	Construction of the horizontal secondary network in FTTH mode following the joint investment arrangement of July 28, 2016 between TIM and Fastweb, voice services, data transmission equipment and services, administrative outsourcing
INWIT S.p.A.	—	12	Voice and data transmission services for company use, IRU assignments of dark optic fiber and local infrastructure, Easy IP ADSL service, small cell design and production services, property leasing, sales of mobile network TLC products, product rental, administrative outsourcing (for the portion relative to the first three months of 2020)
Noovle S.p.A. Societa' Benefit	18	—	Voice services, supply of ICT products, property leasing and facility services
Olivetti S.p.A.	(2)	(9)	Voice services, MPLS and fiber services for the national data network, product sales, property leasing, project development, administrative outsourcing and margins for the end-to-end solutions offered by Olivetti on Jasper platform and intermediated by TIM, under the scope of the contract for the development, management and marketing of machine-to-machine and Internet of Things services
Telecom Italia S.Marino S.p.A.	2	2	Connection and telecommunications services (interconnection contracts for the sale of data services such as bitstream; IRU transfer of dark fiber connections and installation infrastructures; ULL; Shared Access; DSLAM devices; SUBLOOP FTTC), voice services, product sales
Telecom Italia Sparkle S.p.A.	47	47	Voice and data transmission services, customized services, services relating to the interconnection between Telecom Italia Sparkle and TIM communications networks with particular reference to accesses and international traffic, sale of IRU dark fiber and installation infrastructures, property leasing, administrative outsourcing
Telecom Italia Trust Technologies S.r.l.	3	2	Voice outsourced services, fixed network products, administrative outsourcing
Telecontact S.p.A.	3	3	Lease of properties and facility management services, supply of fixed and mobile network and IP connectivity telecommunications products and services, administrative outsourcing
Telefonia Mobile Sammarinese S.p.A.	1	1	Mobile telephone and telecommunications product sales
Telenergia S.p.A.	2	1	Outsourcing for company business, administrative outsourcing, supply of operative assistance services
TIM S.A.	22	24	Roaming services, license support and provision as part of network operations, information technology, marketing & sales, Royalties Trademark License Agreement and TIM Brand
TIM Retail S.r.l.	73	60	Supply of products for sale to the public, voice and data transmission services and ICT services for company use, property leasing
Other minor companies	1	1	
Total revenues	**1,074**	**248**	

(million euros)	2021	2020	Type of contract
Other income			
FiberCop S.p.A.	12	—	Refunds of costs of services, compensation for board positions, other income
Noovle S.p.A. Societa' Benefit	66	—	Recovery of seconded personnel costs, refunds of costs of services, other income
Other minor companies	10	7	
Total other income	**88**	**7**	
Acquisition of goods and services			
FiberCop S.p.A.	910	—	Use of the secondary access network for the supply of copper and fiber access services to operators, IRU acquisition of secondary access (underground and overhead) network installation infrastructures for the transfer for exclusive use of said infrastructures to the operators, special commitment 2021-23 envisaged by the MSA
Flash Fiber S.r.l.	—	1	Use of the network in GPON mode for the supply of the FTTH service
INWIT S.p.A.	—	11	Supply of services for BTS sites, monitoring and security services, management and maintenance services (for the portion relative to the first three months of 2020)
Noovle S.p.A. Societa' Benefit	399	—	Operating service Minimum Commitment Charge, supply of IT services marketed to SME customers, professional IT services, customized TIM offer services to end customers, supply of ICT products, charges for the collocation service of Security systems in Noovle data center, GCP consumptions, professional services, Azure consumptions, hosting, on-premise services
Olivetti S.p.A.	79	70	Provision of Cloud Printing service and related software maintenance, supply of customized services as part of TIM offerings to end customers, purchase of IT services, ICT product installation costs, after-sales support, as part of TIM offerings to end customers, evolutionary developments of projects and platforms, purchase of software platform licenses, software developments, award of cloud enabling services and cloud computing services, security, the development of on-line services and portals and applicative cooperation for the Public Administrations
Telecom Italia Sparkle S.p.A.	155	146	Portion to be paid for telecommunications services and interconnection costs, telephone services, data transmission and international line lease
Telecom Italia Trust Technologies S.r.l.	23	20	Certification Authority service for TIM and within the TIM customer offering, archiving service according to certified email rules for the TIM S.p.A.'s Certified Electronic Mail box, provision of digital identity management services by means of SPID platform and related regulatory adjustments
Telecontact S.p.A.	77	87	Customer Care services for TIM customers and for the Public Administration under the Consip Agreement, back office services relating to the billing services for customers of the paid service provided by TIM technicians, call center and back office services for the management of the information of the technical and commercial front end of public telephony
Telenergia S.p.A.	250	255	Power services
Telsy S.p.A.	10	5	Purchase of licenses, as part of TIM offerings to end customers, and ICT solutions security services for TIM, maintenance services and licenses
TIM Retail S.r.l.	90	92	Supply of services for acquisition of new customers, information activities and post-sales support for TIM customers, activities for the promotion of TIM's image and distinctive brands through point-of-sale windows
TIM Servizi Digitali S.p.A.	3	—	Tender contract for network works, assurance activities, delivery, network construction
Other minor companies	—	1	
Total acquisition of goods and services	**1,996**	**688**	

(million euros)	2021	2020	Type of contract
Employee benefits expenses	**—**	**—**	
Other operating expenses	**—**	**—**	
Amortization of rights of use assets			
FiberCop S.p.A.	21	—	Amortization of rights of use resulting from the launch, from the date of conferral by TIM to FiberCop of TIM IRU liabilities on portions of secondary network to FiberCop, at the service of the TIM network
Flash Fiber S.r.l.	—	39	Amortization of rights of use related to the recognition of greater non-current assets amortized over the residual contractual term
INWIT S.p.A.	—	64	Amortization of rights of use related to the recognition of greater non-current assets amortized over the residual contractual term (for the portion relative to the first three months of 2020)
Noovle S.p.A. Societa' Benefit	4	—	Amortization of rights of use related to the recognition of greater non-current assets amortized over the residual contractual term
Total amortization of rights of use assets	**25**	**103**	
Gains/(losses) on disposals of non-current assets	**(40)**	**3**	Following the derecognition of the rights of use connected with the previous Pay per Use contract entered into with Flash Fiber, as a result of the start of the new Master Service Agreement (MSA) entered into by TIM S.p.A. and FiberCop S.p.A., due to the conferral and merger of FiberCop with Flash Fiber
Income (expenses) from investments			
Telecom Italia Finance S.A.	436	75	Dividends
Telecom Italia Sparkle S.p.A.	400	—	Dividends
Total income (expenses) from investments	**836**	**75**	
Finance income			
FiberCop S.p.A.	88	—	Interest income on financial receivables, financial commission income
Flash Fiber S.r.l.	—	10	Income from receivables and financial commissions receivable
Noovle S.p.A. Societa' Benefit	23	—	Interest income on financial receivables, financial commission income
Telecom Italia Capital S.A.	230	273	Income from securities, income from derivatives, financial commissions receivable, other financial income
Telecom Italia Finance S.A.	30	36	Income from securities, income from derivatives, and financial commissions receivable
Telecom Italia Sparkle S.p.A.	1	—	Interest income on financial receivables, exchange gains
Telenergia S.p.A.	1	1	Interest income on financial receivables, financial commission income
Total finance income	**373**	**320**	
Finance expenses			
INWIT S.p.A.	—	4	Finance expenses for interest connected with rights of use consequent to the recognition of higher financial liabilities (for the portion relative to the first three months of 2020)
Telecom Italia Capital S.A.	522	429	Interest on financial payables, charges on derivatives, miscellaneous finance expenses
Telecom Italia Finance S.A.	132	126	Interest on financial payables, charges on derivatives, financial commissions payable, miscellaneous finance expenses
Total finance expenses	**654**	**559**	

STATEMENT OF FINANCIAL POSITION LINE ITEMS

(million euros)	12/31/2021	12/31/2020	Type of contract
Net financial debt			
Non-current financial assets			
FiberCop S.p.A.	1,516	—	Loan
Flash Fiber S.r.l.	—	500	Loan
Noovle S.p.A. Societa' Benefit	684	—	Loan
Telecom Italia Capital S.A.	—	16	Derivative assets
Telecom Italia Finance S.A.	149	142	Derivative assets
Telecom Italia Sparkle S.p.A.	316	—	Loan
Telsy S.p.A.	4	—	Loan
Total non-current financial assets	**2,669**	**658**	
Securities other than investments (current assets)	**—**	**—**	
Financial receivables and other current financial assets			
Flash Fiber S.r.l.	—	1	Short-term financial receivables
Staer Sistemi S.r.l.	4	—	Short-term financial receivables
Telecom Italia Capital S.A.	6	7	Derivative assets
Telecom Italia Finance S.A.	2	2	Derivative assets
Telecom Italia Sparkle S.p.A.	5	3	Financial receivables for the sale of network infrastructure in IRU
Total financial receivables and other current financial assets	**17**	**13**	
Cash and cash equivalents			Treasury current accounts
Flash Fiber S.r.l.	—	73	
Noovle S.p.A. Societa' Benefit	11	—	
Telenergia S.p.A.	4	19	
TIM Servizi Digitali S.p.A.	11	—	
Total Cash and cash equivalents	**26**	**92**	
Non-current financial liabilities			
Flash Fiber S.r.l.	—	495	Non-current financial liabilities related to the recognition of rights of use arising from lease agreement liabilities following the adoption of IFRS 16
Noovle S.p.A. Societa' Benefit	29	—	Non-current financial liabilities related to the recognition of rights of use for lease liabilities
Telecom Italia Capital S.A.	4,162	4,217	Hedging derivatives and financial payables
Telecom Italia Finance S.A.	1,375	1,448	Hedging derivatives and financial payables
Other minor companies	1	2	
Total Non-current financial liabilities	**5,567**	**6,162**	

(million euros)	12/31/2021	12/31/2020	Type of contract
Current financial liabilities			
Daphne3 S.p.A.	1	—	Payables for current account transactions
FiberCop S.p.A.	14	—	Payables for current account transactions and financial liabilities connected with rights of use
Flash Fiber S.r.l.	—	6	Current financial liabilities related to the recognition of rights of use for lease liabilities
Noovle S.p.A. Societa' Benefit	4	—	Current financial liabilities related to the recognition of rights of use for lease liabilities
Olivetti S.p.A.	35	23	Payables for current account transactions
Telecom Italia Capital S.A.	244	51	Financial payables, derivatives
Telecom Italia Finance S.A.	41	42	Financial payables, payables for current accounts, derivatives
Telecom Italia Sparkle S.p.A.	58	118	Payables for current account transactions
Telecom Italia Trust Technologies S.r.l.	4	13	Payables for current account transactions
Telecontact S.p.A.	33	45	Payables for current account transactions
Telsy S.p.A.	1	6	Payables for current account transactions
TIM My Broker S.r.l.	2	—	Payables for current account transactions
TIM Retail S.r.l.	47	—	
Other minor companies	1	3	
Total Current financial liabilities	**485**	**307**	

(million euros)	12/31/2021	12/31/2020	Type of contract
Other statement of financial position line items			
Rights of use assets			
FiberCop S.p.A.	149	—	Rights of use resulting from the launch, from the date of conferral by TI to FiberCop of TIM IRU liabilities on portions of secondary network to FiberCop, at the service of the TIM network
Flash Fiber S.r.l.	—	532	Rights of use related to the recognition of additional non-current assets amortized over the residual contractual term, following the adoption of IFRS 16
Noovle S.p.A. Societa' Benefit	33	—	Rights of use related to the recognition of greater non-current assets amortized over the residual contractual term
Telecom Italia Sparkle S.p.A.	7	7	Rights of use for the supply of a pairing of dark fiber on the undersea cable system Bluemed and related research and design activities
Other minor companies	—	2	
Total rights of use assets	**189**	**541**	
Miscellaneous receivables and other non-current assets	**247**	**131**	Deferred contractual and other deferred costs for transactions with Telecontact (customer care services) and TIM Retail (new activations), receivables for tax consolidation

(million euros)	12/31/2021	12/31/2020	Type of contract
Trade and miscellaneous receivables and other current assets			
FiberCop S.p.A.	511	—	Carrying out of works on behalf of FiberCop on developments of secondary copper and fiber network, ordinary and extraordinary maintenance services on the secondary copper and fiber network, fee income for administrative services connected with the IRU transfer and acquisition of secondary access network installation infrastructures, supply of ERP, separation, desktop management, TSA and voice services
Flash Fiber S.r.l.	—	102	Construction of the horizontal secondary network in FTTH mode following the joint investment arrangement of July 28, 2016 between TIM and Fastweb, voice services, data transmission equipment and services, administrative outsourcing
Noovle S.p.A. Societa' Benefit	91	—	Voice services, supply of ICT products, property leasing and facility services, recovery of seconded personnel costs, refunds of costs of services
Olivetti S.p.A.	6	8	Telephone services, MPLS and fiber services for the national data network, product sales, property leasing, project development, administrative outsourcing
Telecom Italia Capital S.A.	1	1	Commission on the provision of surety
Telecom Italia Finance S.A.	1	—	Commission on the provision of surety
Telecom Italia S.Marino S.p.A.	1	1	Connection and telecommunications services (interconnection contracts for the sale of data services such as bitstream; IRU transfer of dark fiber connections and installation infrastructures; ULL; Shared Access; DSLAM devices; SUBLOOP FTTC), voice services, product sales
Telecom Italia Sparkle S.p.A.	19	18	Voice and data transmission services, customized services, services relating to the interconnection between Telecom Italia Sparkle and TIM communications networks with particular reference to accesses and international traffic, sale of IRU dark fiber and installation infrastructures, property leasing, administrative outsourcing
Telecom Italia Trust Technologies S.r.l.	4	3	Outsourced voice services, fixed network products, administrative outsourcing, receivables for tax consolidation
Telecontact S.p.A.	27	33	Lease of properties and facility management services, supply of fixed and mobile network and IP connectivity telecommunications products and services, administrative outsourcing, deferred contract costs, receivables for tax consolidation
Telenergia S.p.A.	9	8	Outsourcing for company business, administrative outsourcing, supply of operative assistance services
Telsy S.p.A.	5	2	Deferred costs for the provision of equipment and licenses, as part of TIM offerings to end customers, and ICT solutions security services for TIM, maintenance services and licenses
TIM Retail S.r.l.	48	49	Supply of products for sale to the public, voice and data transmission services and ICT services for company use, property leasing, deferred costs, receivables for tax consolidation
TIM SA	12	13	Roaming services, license support and provision as part of network operations, information technology, marketing & sales, Royalties Trademark License Agreement and TIM Brand
TIM Servizi Digitali S.p.A.	1	—	Supplies of materials to be used to develop the FTTH network
Other minor companies	1	1	
Total trade and miscellaneous receivables and other current assets	**737**	**239**	

(million euros)	12/31/2021	12/31/2020	Type of contract
Miscellaneous payables and other non-current liabilities			
Flash Fiber S.r.l.	—	149	Payables for tax consolidation, deferred revenues deriving from contracts for the sale of transmission capacity
Olivetti S.p.A.	1	1	Payables for tax consolidation
Telecom Italia S.Marino S.p.A.	1	1	Deferred revenues for connection and telecommunications services contracts
Telecom Italia Sparkle S.p.A.	7	7	Deferred revenues from interconnection contracts, payables for tax consolidation
Telenergia S.p.A.	1	1	Payables for tax consolidation
Total miscellaneous payables and other non-current liabilities	**10**	**159**	
Trade and miscellaneous payables and other current liabilities			
FiberCop S.p.A.	352	—	Use of the secondary access network for the supply of copper and fiber access services to operators, IRU acquisition of secondary access (underground and overhead) network installation infrastructures for the transfer for exclusive use of said infrastructures to the operators, special commitment 2021-23 envisaged by the MSA, payables for VAT and tax consolidation
Flash Fiber S.r.l.	—	62	Use of network in GPON mode for the supply of the FTTH service, deferred revenues, payables for tax consolidation
Noovle S.p.A. Societa' Benefit	106	—	Operating service Minimum Commitment Charge, supply of IT services marketed to SME customers, professional IT services, customized TIM offer services to end customers, supply of ICT products, charges for the collocation service of Security systems in Noovle data center, GCP consumptions, professional services, Azure consumptions, hosting, on-premise services, payables for VAT and tax consolidation
Olivetti S.p.A.	25	46	Provision of Cloud Printing service and related software maintenance, supply of customized services as part of TIM offerings to end customers, purchase of IT services, ICT product installation costs, after-sales support, as part of TIM offerings to end customers, evolutionary developments of projects and platforms, purchase of software platform licenses, software developments, award of cloud enabling services and cloud computing services, security, the development of on-line services and portals and applicative cooperation for the Public Administrations, payables for VAT and tax consolidation
Telecom Italia Sparkle S.p.A.	53	97	Portion to be paid for telecommunications services and interconnection costs, telephone services, data transmission and international line lease, payables for VAT and tax consolidation
Telecom Italia Trust Technologies S.r.l.	12	11	Certification Authority service for TIM and within the TIM customer offering, archiving service according to certified email rules for the TIM S.p.A.'s Certified Electronic Mail box, provision of digital identity management services by means of SPID platform and related regulatory adjustments, VAT payables
Telecontact S.p.A.	21	13	Customer Care services for TIM customers and for the Public Administration under the Consip Agreement, back office services relating to the billing services for customers of the paid service provided by TIM technicians, call center and back office services for the management of the information of technical and commercial front end of the public telephony, payables for VAT and tax consolidation
Telenergia S.p.A.	71	78	Energy services, payables for VAT and tax consolidation
Telsy S.p.A.	11	9	Purchase of licenses, as part of TIM offerings to end customers, and ICT solutions security services for TIM, maintenance services and licenses, VAT payables

(million euros)	12/31/2021	12/31/2020	Type of contract
TIM Retail S.r.l.	26	22	Supply of services for acquisition of new customers, information activities and post-sales support for TIM customers, activities for the promotion of image and distinctive brands TIM through point-of-sale windows, payables for tax consolidation
TIM Servizi Digitali S.p.A.	3	—	Tender contract for network works, assurance activities, delivery, network construction
Other minor companies	1	3	
Total trade and miscellaneous payables and other current liabilities	**681**	**341**	

STATEMENT OF CASH FLOWS LINE ITEMS

(million euros)	2021	2020	Type of contract
Purchases of intangible assets, tangible assets and right of use assets on an accrual basis			
Flash Fiber S.r.l.	—	149	Higher value of rights of use recognized as a result of new contracts or changes in existing lease contracts
Noovle S.p.A. Societa' Benefit	39	—	Higher value of rights of use recognized as a result of new contracts or changes in existing lease contracts
Olivetti S.p.A.	7	11	Purchase of products for resale and lease as part of offerings for end customers, development and implementation on platforms
Telecom Italia Sparkle S.p.A.	—	7	Rights of use for the supply of a pairing of dark fiber on the undersea cable system Bluemed and related research and design activities
Telecom Italia Trust Technologies S.r.l.	2	3	Digital Identity and Certification Authority
Telenergia S.p.A.	1	1	Connections for power supply of local NGAN cabinets
Telsy S.p.A.	9	11	Purchase of equipment, as part of TIM offerings to end customers, and ICT solutions security services for TIM
Other minor companies	19	6	
Total purchase of intangible, tangible and right of use assets on an accrual basis	**77**	**188**	
Dividends paid	**1**	**1**	Dividends paid to the company Telecom Italia Finance S.A.

Transactions with associates, subsidiaries of associates and joint ventures

The most significant amounts are summarized as follows:

SEPARATE INCOME STATEMENT LINE ITEMS

(million euros)	2021	2020	Type of contract
Revenues			
INWIT S.p.A.	38	59	Voice and data transmission services for company use, Desktop Management ICT services, IRU transfer of Dark Optic Fiber and Local Infrastructure, Easy IP ADSL service, property leasing, maintenance services and administrative outsourcing
Nordcom S.p.A.	1	1	Fixed and mobile voice services, equipment, data network connections and outsourcing
TIMFin S.p.A.	(13)	—	Mobile and fixed voice services, outsourced services, fees and margins for miscellaneous costs for loans
Total revenues	**26**	**60**	
Other income	**1**	**1**	Recovery of seconded personnel costs, recovery of centralized expenses
Acquisition of goods and services			
INWIT S.p.A.	341	242	Supply of services for BTS sites, power supply systems for the supply of electricity of the hosted devices, monitoring and security services (alarms) and management and maintenance services, remote management and monitoring of the electricity consumption of TIM technological infrastructures (BTS) hosted at INWIT sites
W.A.Y. S.r.l.	8	6	Supply, installation and technical assistance services for geolocation equipment provided as part of offers to TIM customers, software development
Other minor companies	1	1	
Total acquisition of goods and services	**350**	**249**	
Other operating expenses	**3**	**2**	Penalties for breach of contract on maintenance management services to INWIT S.p.A.
Amortization of rights of use assets			
INWIT S.p.A.	50	39	Amortization of rights of use related to the recognition of greater non-current assets amortized over the residual contractual term
Total amortization of rights of use assets	**50**	**39**	
Income (expenses) from investments			
INWIT S.p.A.	—	256	Dividends
Total income (expenses) from investments	**—**	**256**	
Finance income	**—**	**—**	
Finance expenses			
INWIT S.p.A.	15	15	Finance expenses for interest related to financial liabilities for rights of use
TIMFin S.p.A.	3	—	Finance expenses for commission and miscellaneous finance expenses
Total finance expenses	**18**	**15**	

STATEMENT OF FINANCIAL POSITION LINE ITEMS

(million euros)	12/31/2021	12/31/2020	Type of contract
Net financial debt			
Non-current financial assets	—	—	
Financial receivables and other current financial assets	—	—	
Non-current financial liabilities			
INWIT S.p.A.	269	313	Non-current financial liabilities related to the recognition of rights of use for lease liabilities
Total Non-current financial liabilities	**269**	**313**	
Current financial liabilities			
INWIT S.p.A.	74	50	Current financial liabilities related to the recognition of rights of use for lease liabilities
TIMFin S.p.A.	1	—	Financial liabilities for expenses on the transfer of receivables
Total Non-current financial liabilities	**75**	**50**	

(million euros)	12/31/2021	12/31/2020	Type of contract
Other statement of financial position line items			
Rights of use assets			
INWIT S.p.A.	299	347	Rights of use related to the recognition of greater non-current assets amortized over the residual contractual term
Total rights of use assets	**299**	**347**	
Miscellaneous receivables and other non-current assets	—	—	
Trade and miscellaneous receivables and other current assets			
INWIT S.p.A.	15	36	Voice and data transmission services for company use, Desktop Management ICT services, IRU transfer of Dark Optic Fiber and Local Infrastructure, Easy IP ADSL service, property leasing, maintenance services and administrative outsourcing
W.A.Y. S.r.l.	2	2	Deferred costs for the provision of customized platforms, application offers, fixed and mobile voice services
Other minor companies	—	1	
Total trade and miscellaneous receivables and other current	**17**	**39**	
Miscellaneous payables and other non-current liabilities	**2**	**2**	Deferred subscription charge revenues from INWIT S.p.A.
Trade and miscellaneous payables and other current liabilities			
INWIT S.p.A.	171	98	Supply of services for BTS sites, monitoring and security services, management and maintenance services
Movenda S.p.A.	1	1	Supply and certification of SIM CARDS, software systems
TIMFin S.p.A.	3	—	Cost of the risk for loans
W.A.Y. S.r.l.	2	2	Supply, installation and technical assistance services for geolocation equipment provided as part of offers to TIM customers, software development
Total trade and miscellaneous payables and other current liabilities	**177**	**101**	

STATEMENT OF CASH FLOWS LINE ITEMS

(million euros)	2021	2020	Type of contract
Purchases of intangible assets, tangible assets and right of use assets on an accrual basis			
INWIT S.p.A.	7	376	Higher value of rights of use as a result of new contracts or changes in existing lease contracts, IRU acquisition of backhauling connections, supply of plants, installation and related activations for the extension of indoor radio mobile coverage relative to TIM offerings to end customers
Movenda S.p.A.	1	1	Supply and development of system software
Other minor companies	—	1	
Total purchase of intangible, tangible and right of use assets on an accrual basis	**8**	**378**	

TIM S.p.A. has issued guarantees on behalf of subsidiaries, associates and joint ventures for a total of 5,542 million euros, net of back-to-back guarantees received (5,001 million euros at December 31, 2020).

In particular, the following is noted: 3,532 million euros on behalf of Telecom Italia Capital S.A. (3,260 million euros at December 31, 2020); 1,348 million euros on behalf of Telecom Italia Finance S.A. (1,424 million euros at December 31, 2020); 281 million euros on behalf of the Sparkle group (61 million euros at December 31, 2020); 107 million euros on behalf of Olivetti S.p.A. (86 million euros at December 31, 2020); 128 million euros on behalf of Telenergia S.p.A. (57 million euros at December 31, 2020).

Transactions with other related parties (through directors, statutory auditors and key managers, as well as participants in shareholder agreements pursuant to Article 122 of the Consolidated Law on Finance)

Details are provided below of the transactions with:

- Vivendi Group and the companies of the group that it belongs to;
- Cassa Depositi e Prestiti Group and Group subsidiaries;
- Related companies through Directors.

SEPARATE INCOME STATEMENT LINE ITEMS

(million euros)	2021	2020	Type of contract
Revenues			
Other Directors or through	—	3	Fixed-line and mobile voice services and systems
Cassa Depositi e Prestiti Group	22	—	IRU transfer of rights to use dark fiber installation and infrastructures; supply of housing, dark fiber maintenance and dedicated GEA/Giganet connectivity services, fixed and mobile voice services and devices, Microsoft licenses, application outsourcing services, cloud services, maintenance services
Total revenues	**22**	**3**	
Acquisition of goods and services			
Cassa Depositi e Prestiti Group	2	—	Purchases of products for resale under the scope of TIM offerings to end customers, TIM sales network POS terminal fleet rental charges, costs for the use of SWIFTNet network access infrastructures to send and receive FIN and File messages, service relative to information flows and devices through interbanking corporate banking (CBI)
Havas Group	74	74	Purchase of media space on behalf of TIM and development and delivery of advertising campaigns
Vivendi group	3	4	Purchase of musical and television digital content (TIMmusic, TIMvision), operative management of the Telecom Italia S.p.A. on-line store platform “TIM I Love Games” and related developments
Total acquisition of goods and services	**79**	**78**	

STATEMENT OF FINANCIAL POSITION LINE ITEMS

(million euros)	12/31/2021	12/31/2020	Type of contract
Net financial debt			
Non-current financial assets	**1**	**—**	Non-current financial receivables arising from lease contracts for Cassa Depositi e Prestiti

(million euros)	12/31/2021	12/31/2020	Type of contract
Other statement of financial position line items			
Trade and miscellaneous receivables and other current assets			
Other Directors or through	—	3	Fixed-line and mobile voice services and systems
Cassa Depositi e Prestiti Group	20	—	IRU transfer of rights to use dark fiber installation and infrastructures; supply of housing, dark fiber maintenance and dedicated GEA/Giganet connectivity services, fixed and mobile voice services and devices, Microsoft licenses, application outsourcing services, cloud services, maintenance services
Total trade and miscellaneous receivables and other current assets	**20**	**3**	
Miscellaneous payables and other non-current liabilities	**—**	**—**	
Cassa Depositi e Prestiti Group	23	—	Deferred subscription charges revenues
Total miscellaneous payables and other non-current liabilities	**23**	**—**	
Trade and miscellaneous payables and other current liabilities			
Cassa Depositi e Prestiti Group	9	—	Purchases of products for resale under the scope of TIM offerings to end customers, TIM sales network POS terminal fleet rental charges, costs for the use of SWIFTNet network access infrastructures to send and receive FIN and File messages, service relative to information flows and devices through interbanking corporate banking (CBI)
Havas Group	34	33	Purchase of media space on behalf of TIM and development and delivery of advertising campaigns
Vivendi group	1	2	Purchase of musical and television digital content (TIMmusic, TIMvision), operative management of the Telecom Italia S.p.A. on-line store platform "TIM I Love Games" and related developments
Other minor companies	—	1	
Total trade and miscellaneous payables and other current liabilities	**44**	**36**	

STATEMENT OF CASH FLOWS LINE ITEMS

(million euros)	2021	2020	Type of contract
Purchase of intangible and tangible assets on an accrual basis	**15**	**—**	Development of the discovery phase and MYCanal+ platform supply for the TimVision Service, mainly towards the Vivendi Group
Dividends paid			
Cassa Depositi e Prestiti Group	15	—	Dividends
Vivendi group	36	36	Dividends
Total dividends paid	**51**	**36**	

Transactions with pension funds

The most significant amounts are summarized as follows:

SEPARATE INCOME STATEMENT LINE ITEMS

(million euros)	2021	2020	Type of contract
Employee benefits expenses			Contributions to pension funds
Fontedir	8	8	
Telemaco	56	56	
Total Employee benefits expenses	**64**	**64**	

STATEMENT OF FINANCIAL POSITION LINE ITEMS

(million euros)	12/31/2021	12/31/2020	Type of contract
Trade and miscellaneous payables and other current liabilities			Payables for contributions to pension funds
Fontedir	3	2	
Telemaco	18	18	
Total trade and miscellaneous payables and other current liabilities	**21**	**20**	

Remuneration to key managers

In 2021, the total remuneration recorded on an accrual basis by TIM S.p.A. in respect of key managers amounted to 32 million euros (14 million euros at December 31, 2020). The figure breaks down as follows:

(million euros)	2021	2020
Short-term remuneration	8	10
Long-term remuneration	—	—
Employment termination benefit incentives	18	2
Share-based payments (*)	6	2
Total	**32**	**14**

(*) These refer to the fair value of the rights, accrued at December 31, 2021, under the share-based incentive plans of TIM S.p.A. and its subsidiaries (Long Term Incentive and Plans of the subsidiaries).

Short-term remuneration is paid during the reference year, and, at the latest, within the six months following the end of that period. As at December 31, 2021, they do not include the effects of the reversal of the accruals related to the 2020 costs amounting to approximately 900 thousand euros.

The indemnities for early termination of employment for the year 2021 also include the amount paid to Mr. Luigi Gubitosi, amounting to 6.9 million euros.

In 2021, the contributions paid in to defined contribution plans (Assida and Fontedir) by TIM S.p.A. or by subsidiaries of the Group on behalf of key managers, amounted to 140 thousand euros (135 thousand euros at December 31, 2020).

With regard to the remuneration of directors and statutory auditors due for the year 2021, pursuant to Article 2427, no. 16 of the Italian Civil Code, reference should be made to the Compensation Report, available at the Company's headquarters and on the Company's website at the following address: www.telecomitalia.com/Assemblea.

In 2021, "Key managers", i.e. those who, directly or indirectly, have the power and responsibility for the planning, management and control of TIM Group operations, including directors, were the following:

Directors:		
Luigi Gubitosi	(1)	Managing Director and Chief Executive Officer of TIM S.p.A. General Manager
Pietro Labriola	(2)	General Manager of TIM S.p.A. Diretor Presidente TIM S.A.
Executives:		
Giovanna Bellezza	(3)	a.i. Head of Human Resources, Organization & Real Estate
Paolo Chiriotti	(4)	Head of Procurement
Simone De Rose	(5)	a.i. Head of Procurement
Michele Gamberini	(6) (7)	Chief Technology & Information Office Chief Innovation & Information Office
Nicola Grassi	(8) (4)	Head of Security Chief Technology & Operations Office
Stefano Grassi		Head of Security
Massimo Mancini	(5)	Chief Enterprise Market Office
Giovanni Gionata	(9)	Chief Regulatory Affairs & Wholesale Market Office
Massimiliano Moglia	(5)	Chief Regulatory Affairs Office
Carlo Nardello	(9)	Chief Strategy, Business Development & Transformation Office
Agostino Nuzzolo		Head of Legal & Tax
Claudio Giovanni Ezio Ongaro	(5)	a.i. Chief Strategy & Business Development Office
Federico Rigoni	(8)	Chief Revenue Officer
Giovanni Ronca		Chief Financial Office
Luciano Sale	(10)	Head of Human Resources, Organization & Real Estate
Stefano Siragusa	(6) (11) (12) (13) (5)	Chief Operations Office Chief Technology & Operations Office Chief Revenue Officer Chief Revenue, Information & Media Office Chief Network, Operations & Wholesale Office

(1) to November 26, 2021
(2) from November 27, 2021;
(3) from November 30, 2021:
(4) from July 5, 2021 to December 6, 2021;
(5) from December 07, 2021;
(6) to April 8, 2021;
(7) from April 9, 2021 to September 20, 2021;
(8) to July 4, 2021;
(9) to December 6, 2021;
(10) to November 29, 2021;
(11) from April 9, 2021 to July 4, 2021;
(12) from July 5, 2021 to September 20, 2021;
(13) from September 21, 2021 to December 6, 2021;

On January 21, 2022 the Board of Directors co-opted Pietro Labriola, who retains the office of General Manager, and appointed him as Chief Executive Officer, conferring on him all powers.

NOTE 37
EQUITY COMPENSATION PLANS

Equity compensation plans in force at December 31, 2021, are used for attraction and retention purposes, and as a long-term incentive for the managers and employees of the Group.

However, it should be noted that these plans do not have any significant effect on the economic result or on the financial position or on cash flows at December 31, 2021.

A summary is provided below of the plans in place at December 31, 2021. For more information on the plans in place at December 31, 2020, see the Separate Financial Statements of TIM S.p.A. at December 31, 2020.

Description of compensation plans

TIM S.p.A. - Long Term Incentive Plan 2018-2020

Following approval of the 2020 financial statements, the parameter of stock performance has not reached the minimum level for accessing the premium, while the cumulative equity free cash flow parameter (30%) has reached an achievement level of 88.47% (between the minimum and target), thereby quantifying the number of shares accrued by beneficiaries as 6,715,617 shares, subject to a two-year lock-up from the accrual date.

TIM S.p.A. - Long Term Incentive Plan 2020-2022

The Shareholders' Meeting of April 23, 2020 approved the launch of the new rolling and equity based long-term incentive plan called LTI 2020-2022.

Each cycle of the plan is divided into two parties:

- **Performance Share**: free allocation of Company ordinary shares, the maturity of which is subject to an access gate linked to the value of the share and to two share and industrial performance conditions, given below.
- **Attraction/Retention Share**: free allocation of Company ordinary shares, the maturity of which is subject to the continuity of the employment relationship with TIM or TIM Group companies.

In relation to the Performance Share component, the performance conditions are as follows:

- access gate, represented by the value of the security, which at the end of each cycle must be equal to or greater than the value of the security at the start of the same cycle (refer to the normal value of the share equal to the average of the official closing prices of the Stock Exchange 30 days prior to the start and end of the Plan cycle);
- NFP/EBITDA ratio, with relative weighting equal to 40%;
- Relative performance (TSR) of the ordinary share compared to a basket of Peers, with a relative weighting of 60%.

A payout bonus/malus mechanism equal to 4% will be applied to both components (Performance Share and Attraction/Retention Share), linked, in equal measure,

- to the % growth of use of renewable energy out of total energy and to the reduction of indirect emissions of CO_2 (2020-2022 cycle)
- to the % growth of use of renewable energy out of total energy and the increase in the female presence in the managerial population (2021-2023 cycle).

For the CEO, 100% of the pay opportunity is linked to the Performance Share component. For the remaining recipient managers, 70% of the Pay Opportunity is linked to the Performance Share and the remaining 30% to the Attraction/Retention Shares.

2020-2022 Cycle

On May 18, 2020, the Board of Directors launched the first cycle of the new Plan, for the three-year period 2020-2022, simultaneously assigning it to the CEO. At December 31, 2021, the first incentive cycle intended for 140 resources establishes the right of beneficiaries to receive 57,388,194 shares upon reaching the target, without prejudice to:

- the gate condition and application of the ESG correction for performance shares
- application of the ESG correction and continuity of the contract of employment for attraction/retention shares.

2021-2023 Cycle

On April 28, 2021, the Board of Directors resolved the start of the second 2021-2023 cycle of incentives of the 2020-2022 Long Term Incentive Plan, at the same time assigning it to the CEO.

The second cycle, like the first, is aimed at the Chief Executive Officer, Top Management and a selected segment of TIM Group's management.

At December 31, 2021, the cycle provides for the 153 recipients to be entitled to receive an award of 55,878,929 shares upon achievement of the target, subject to:

- the gate condition and application of the ESG correction for performance shares
- application of the ESG correction and continuity of the contract of employment for attraction/retention shares.

TIM S.p.A. – Broad-Based Share Ownership Plan 2020

In implementation of the resolutions passed on April 23, 2020 by the Extraordinary Shareholders' Meeting and subsequently on May 18, 2020 by the Board of Directors of Telecom Italia S.p.A., on June 16, 2020 the campaign to subscribe to the 2020 Diffuse Share Ownership Plan was opened, closing on October 30, 2020; the shares were subscribed at a unit price of 0.31 euros.

To service the initiative, a maximum of 127,500,000 new shares were to be issued, to be offered for paid subscription and, subsequently, a maximum 42,500,000 new shares, without capital increase, for the free allocation of 1 Bonus Share for every 3 subscribed shares.

As a result of the issuance on November 27, 2020 of 126,343,913 Telecom Italia ordinary shares to the subscribers of the discounted shares, 38,604,270 ordinary shares of the Company (Bonus Shares) were allocated free of charge on December 3, 2021, without a capital increase. As planned, the Bonus Shares were awarded to those who retained their subscribed shares for the period of one year from the allocation date, subject to continued employee status.

NOTE 38

SIGNIFICANT NON-RECURRING EVENTS AND TRANSACTIONS

The impact of non-recurring events and transactions on equity, profit, net financial debt and cash flows is set out below in accordance with Consob Communication DEM/6064293 dated July 28, 2006:

(million euros)		Equity	Profit (loss) for the year	Net financial debt	Cash flows (*)
Carrying amount	**(a)**	**16,564**	**(8,314)**	**21,937**	**2,119**
Revenues - Revenue adjustments		(4)	(4)	—	—
Other income		2	2	(2)	2
Acquisition of goods and services - Expenses related to agreements and the development of non-recurring projects		(29)	(29)	52	(52)
Employee benefits expenses - Charges connected to corporate reorganization/restructuring and other costs		(256)	(256)	463	(463)
Other operating expenses - Expenses related to disputes and regulatory sanctions and potential liabilities related to them, and expenses related to disputes with former employees and liabilities with customers and/or suppliers for other provisions and charges		(465)	(465)	195	(195)
Other operating expenses - Sundry expenses		(91)	(91)	55	(55)
Net gains on disposals of other investments		(12)	(12)	(1,760)	1,760
Goodwill Impairment loss		(4,120)	(4,120)	—	—
Miscellaneous finance expenses		(1)	(1)	—	—
Tax realignment pursuant to Decree Law 104/2020 Art. 110		(3,785)	(3,785)	231	(231)
Total non-recurring effects	**(b)**	**(8,761)**	**(8,761)**	**(766)**	**766**
Figurative amount	**(a-b)**	**25,325**	**447**	**22,703**	**1,353**

(*) Cash flows refer to the increase (decrease) in Cash and cash equivalents during the year.

“Other operating expenses - Expenses related to disputes and regulatory sanctions and potential liabilities related to them, and expenses related to disputes with former employees and liabilities with customers and/or suppliers and other provisions and charges” include 548 million euros for the posting of Contractual risk provisions for onerous contracts (IAS 37) relative to contents.

In particular, they include the accrual of the Net Present Value of the negative margin connected with some partnerships, including the one in place between TIM and DAZN for the offer in Italy on the TIMVISION platform of DAZN content, including all matches of the Serie A football championship for the seasons 2021-22, 2022-23 and 2023-24.

In greater detail, as part of the definition of the 2022-2024 Strategic Plan, the business plan hypotheses have been updated for the current football season and the next two, pointing out that the total margins of the project, including TIM’s contractual commitments towards DAZN in terms of fees, for lack of remedy by DAZN of certain breaches already disputed, is very much negative.

Use of said Provision throughout the contractual term will make it possible to offset the negative item of the margin (EBITDA), thereby obtaining null EBIT (organic or operative margin) for the DAZN offer contents sale business.

In financial terms, TIM is contractually obliged to pay DAZN six installments in advance (July, September, November, January, March and May) for each year (July 1-June 30, corresponding to each championship season), without prejudice to the fact that should the report of TIM customers with DAZN service in the two months prior to each installment record a higher amount being due to the latter (at present, this is purely theoretical), TIM would be required to also pay this difference.

The impact of non-recurring items on the separate income statement line items is as follows:

(million euros)	2021	2020
Operating revenues and other income	**(3)**	**(39)**
Revenue adjustments	(5)	(39)
Other income	2	—
Acquisition of goods and services, Change in inventories	**(38)**	**(58)**
Professional expenses, consulting services and other costs	(38)	(58)
Employee benefits expenses	**(358)**	**(69)**
Expenses related to corporate reorganization/restructuring and other costs	(358)	(69)
Other operating expenses	**(735)**	**(145)**
Expenses related to disputes and regulatory sanctions and potential liabilities related to them, and expenses related to disputes with former employees and liabilities with customers and/or suppliers for other provisions and charges	(610)	(5)
Sundry expenses	(125)	(140)
Impact on Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)	**(1,134)**	**(311)**
Impairment reversals (losses) on non-current assets	**(4,120)**	**—**
Goodwill impairment loss	(4,120)	—
Impairment of intangible fixed assets	**—**	**—**
Impact on EBIT - Operating profit (loss)	**(5,254)**	**(311)**
Other income (expenses) from investments	**9**	**227**
Other finance income (expenses)	**(1)**	**(7)**
Impact on profit (loss) before tax	**(5,246)**	**(91)**
Tax realignment pursuant to Decree Law 104/2020 Art. 110	(3,785)	5,877
Income taxes on non-recurring items	270	45
Impact on profit (loss) for the year	**(8,761)**	**5,831**

The COVID-19 emergency, following the spread of the SARS-CoV-2 virus and pronounced a pandemic by the World Health Organization (WHO) on March 11, 2020, resulted in TIM S.p.A. incurring non-recurring expenses, gross of tax effects, for a total of 25 million euros. In particular, provisions have been made in relation to the management of receivables (20 million euros) in connection with the anticipated worsening of the expected credit loss of corporate customers, linked to expected developments in the pandemic situation; in addition, provisions have been made for payroll costs (1 million euros) and for supplies and miscellaneous costs (4 million euros), which were necessary to manage the health emergency, primarily for the purchase of personal protective equipment, thermal scanners and environmental hygiene services.

Further details on the tax realignment are provided in the Note "Income tax expense (current and deferred)" in these Financial Statements.

NOTE 39

POSITIONS OR TRANSACTIONS RESULTING FROM ATYPICAL AND/OR UNUSUAL OPERATIONS

In accordance with Consob Communication DEM/6064293 of July 28, 2006, a statement is made to the effect that in 2021 no atypical and/or unusual transactions, as defined by that Communication, were pursued.

NOTE 40

OTHER INFORMATION

Research and Development

Costs for research and development activities are represented by external costs, labor costs of dedicated staff and depreciation and amortization. Details are as follows:

(million euros)	2021	2020
Research and development costs expensed during the year	56	79
Capitalized development costs	963	991
Total research and development costs (expensed and capitalized)	**1,019**	**1,070**

The decrease recorded in the 2021 financial year is due to the stabilization of implementation activities connected with the new generation networks, partly offset by software developments on corporate information systems.
In the 2021 separate income statement, depreciation and amortization charges totaling 864 million euros were recorded for development costs capitalized during the year and in prior years.
Research and development activities conducted by TIM S.p.A. are detailed in the Report on Operations ("Research and Development" section).

Lease income

TIM has entered into lease agreements for land and buildings for office use and industrial use, infrastructure sites for the mobile network and network infrastructures; at December 31, 2021, the lease installments at nominal value still to be collected totaled:

(million euros)	12/31/2021	12/31/2020
Within next year	115	129
From 1 to 2 years after the end of the reporting period	51	65
From 2 to 3 years after the end of the reporting period	49	63
From 3 to 4 years after the end of the reporting period	48	61
From 4 to 5 years after the end of the reporting period	45	60
Beyond 5 years after the end of the reporting period	43	60
Total	**351**	**438**

Public Funds

Italian Law 124/2017 requires that information on subsidies, contributions, paid assignments and economic benefits of any kind received from public administrations be provided. In relation to this, funds received are shown in the following table:

Distributing entity	Area of intervention	Received in 2021 (million euros)	Received in 2020 (million euros)
Fondimpresa/Fondirigenti	training		1
Infratel	construction of broadband and ultrabroadband infrastructure	3	24
MUR (formerly MIUR)	research projects		3
ANPAL	New Skills Fund	53	
Sundry income (*)	innovation and Digital Divide	1	1
Total		**57**	**29**

(*) 2021 - MiSE, Fondimpresa/Fondirigenti, MUR (formerly MIUR)
2020 - MED; Region of Lombardy, Region of Apulia

Summary schedule of fees due to the audit firm and other firms in its network

The following schedule reports the fees due to EY S.p.A. for the audit of the 2021 financial statements, and the fees referring to the year 2021 for other audit and review services, and for other services besides audit rendered to TIM by EY and other firms in the EY network. This also includes the out-of-pocket expenses incurred in 2021 in relation to said services.

(in euros)	TIM S.p.A. EY S.p.A.	TIM S.p.A. Other firms of the EY network	Total EY network
Audit services:			
audit of the separate financial statements	944,756		944,756
audit of the consolidated financial statements	169,104		169,104
audit of the internal control system that supervises the process of preparation of the consolidated financial statements and limited statutory audit of the financial disclosure as at March 31 and September 30	975,135		975,135
limited audit of the half-year consolidated financial statements	197,457		197,457
other	470,891		470,891
Audit services with the issue of certification	80,000		80,000
Attestation of compliance of the Consolidated Non-Financial Statement	72,907		72,907
Other services	—		—
Total 2021 fees due for auditing and other services to the EY network	**2,910,250**	**—**	**2,910,250**
Out-of-pocket expenses	10,016		10,016
Total	**2,920,266**	**—**	**2,920,266**

NOTE 41
EVENTS SUBSEQUENT TO DECEMBER 31, 2021

TIM: Solidarity for Ukraine, unlimited data and minutes included for customers of Ukrainian nationality

To express its solidarity with the Ukrainian population struck by the current conflict, TIM has made a series of benefits available to its Ukrainian nationality customers in Italy, to help them communicate with friends and family.

Starting March 1, 2022, they will have unlimited data and minutes for a week. To adhere to the initiative, simply answer the specific informative SMS, visit a TIM store or call 119 or visit the My TIM area.

NOTE 42

LIST OF INVESTMENTS IN SUBSIDIARIES, ASSOCIATES AND JOINT VENTURES

(thousands of euros)	Reg. office		Share capital (1)	Equity (1) (2)	Profit/ (loss) (1)	% Ownership	Share of equity (A) (3)		Carrying amount (B) (4)	Difference (B-A)
Investments in subsidiaries										
CD FIBER	Rome	Euro	50	44	—	100.00 %	44		43	(1)
DAPHE 3	Milan	Euro	100	2,745,936	86,305	51.00 %	1,400,427		296,314	(1,104,113)
FIBERCOP	Milan	Euro	10,000	5,067,908	321,239	58.00 %	2,939,386		2,965,311	25,925
NOOVLE S.p.A. Societa' Benefit	Milan	Euro	1,000	1,081,213	2,868	100.00 %	1,081,213		1,079,572	(1,641)
OLIVETTI	Ivrea (TO)	Euro	11,000	82,491	(6,283)	100.00 %	82,491		36,066	(46,425)
TELECOM ITALIA CAPITAL	Luxembourg	Euro	2,336	64,757	15,654	100.00 %	64,757		2,388	(62,369)
TELECOM ITALIA FINANCE	Luxembourg	Euro	1,818,692	6,111,632	80,745	100.00 %	6,057,532	(3)	5,914,971	(142,561)
TELECOM ITALIA LATAM PARTIC. E GESTÃO ADMIN.	SanPaolo (Brazil)	R$	118,926	(67,258)	(29,083)					
		Euro	18,816	(10,641)	(4,601)	100.00 %	(10,641)	(5)	—	10,641
TELECOM ITALIA SAN MARINO	San Marino	Euro	1,808	9,730	1,432	100.00 %	9,730		7,565	(2,165)
TELECOM ITALIA SPARKLE	Rome	Euro	200,000	260,827	(7,202)	100.00 %	348,395	(6)	587,519	239,124
TELECOM ITALIA VENTURES	Milan	Euro	10	52,635	291	100.00 %	52,635		52,635	—
TELECONTACT CENTER	Naples	Euro	3,000	38,437	723	100.00 %	38,437		12,611	(25,826)
TELENERGIA	Rome	Euro	50	9,419	(6,405)	100.00 %	9,419		50	(9,369)
TELSY	Turin	Euro	5,390	27,296	3,739	100.00 %	27,296		19,522	(7,774)
TIAUDIT COMPLIANCE LATAM (in liquidation)	Rio de Janeiro (Brazil)	R$	1,500	1,495	(148)					
		Euro	237	237	(23)	69.9996%	166		181	15
TIM BRASIL SERVIÇOS E PARTICIPAÇÕES	Rio de Janeiro (Brazil)	R$	7,169,030	11,101,935	632,767					
		Euro	1,134,256	1,756,505	100,114	0.00000001 %	—		—	—
TIM MY BROKER	Rome	Euro	10	2,138	2,041	100.00 %	2,138		10	(2,128)
TIM RETAIL	Milan	Euro	2,402	78,473	1,869	100.00 %	78,473		15,143	(63,330)
TIM SERVIZI DIGITALI	Rome	Euro	50	(2,115)	(1,981)	100.00 %	(2,115)	(5)	—	2,115
									10,989,901	**(1,189,882)**

(thousands of euros)	Reg. office		Share capital (1)	Equity (1) (2)	Profit/ (losses) (1)	Ownership (%)	Share of equity (A) (3)	Carrying amount (B) (4)	Difference (B-A)
Investments in associates and joint ventures									
AREE URBANE (in liquidation)	Milan	Euro	100	(92,175)	(1,185)	32.62 %	(30,067)	—	30,067
NORDCOM	Milan	Euro	5,000	14,364	404	42.00 %	6,033	2,143	(3,890)
TIGLIO I	Milan	Euro	1,000	2,882	144	47.80 %	1,378	—	(1,378)
TIMFIN	Turin	Euro	40,000	45,369	(7,650)	49.00 %	22,231	26,950	4,719
								29,093	**29,519**

(1) Figures taken from the latest approved financial statements. For subsidiaries, the data used are taken from the IFRS-prepared financial statements.
(2) Includes profit (loss).
(3) Net of dividends to be paid.
(4) Includes investment account payments.
(5) Covered by the provision for losses of subsidiaries and associates.
(6) Figures taken from the consolidated financial statements.

CERTIFICATION OF THE SEPARATE FINANCIAL STATEMENTS PURSUANT TO ARTICLE 81-TER OF THE CONSOB REGULATION 11971 DATED MAY 14, 1999, WITH AMENDMENTS AND ADDITIONS

1. We, the undersigned, Pietro Labriola, as Chief Executive Officer, and Giovanni Ronca, as Manager responsible for preparing TIM S.p.A. financial reports, certify, having also considered the provisions of Article 154-bis, paragraphs 3 and 4, of Italian Legislative Decree 58 of February 24, 1998, that:
   - the adequacy in relation to the characteristics of the company and
   - the effective application of the administrative and accounting procedures used in the preparation of the annual financial statements for the 2021 fiscal year.
2. TIM has adopted the Internal Control – Integrated Framework Model (2013), issued by the Committee of Sponsoring Organizations of the Treadway Commission, as its framework for the establishment and assessment of its internal control system, with particular reference to the internal controls for the preparation of the financial statements.
3. The undersigned also certify that:

   3.1 The separate financial statements at December 31, 2021:

   a) are prepared in conformity with international accounting standards endorsed by the European Union pursuant to EC Regulation 1606/2002 of the European Parliament and of the Council of July 19, 2002 (International Financial Reporting Standards – IFRS) as well as the legislation and regulations in force in Italy with particular reference to Article 154-ter of Legislative Decree 58 of February 24, 1998 and the measures enacted for the implementation of Article 9 of Legislative Decree 38 of February 28, 2005;

   b) agree with the results of the accounting records and entries;

   c) provide a true and fair view of the financial position, financial performance and cash flows of the Company;

   3.2 The report on operations contains a reliable operating and financial review of the Company, as well as the description of its exposure to the main risks and uncertainties. The Report on Operations also contains a reliable analysis of information concerning significant related-party transactions.

March 2, 2022

Chief Executive Officer	**Manager Responsible for Preparing the Corporate Financial Reports**
/ signed /	/ signed /
Pietro Labriola	Giovanni Ronca

INDEPENDENT AUDITORS' REPORT

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Independent auditor's report pursuant to article 14 of Legislative Decree n. 39, dated 27 January 2010 and article 10 of EU Regulation n. 537/2014
(Translation from the original Italian text)

To the Shareholders of
TIM S.p.A.

Report on the Audit of the Separate Financial Statements

Opinion

We have audited the separate financial statements of TIM S.p.A. (the Company), which comprise the statement of financial position as at December 31,2021, and the separate income statement, the statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the separate financial statements, including a summary of significant accounting policies.

In our opinion, the separate financial statements give a true and fair view of the financial position of the Company as at December 31, 2021, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union and with the regulations issued for implementing art. 9 of Legislative Decree n. 38/2005.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISA Italia). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Separate Financial Statements* section of our report. We are independent of the Company in accordance with the regulations and standards on ethics and independence applicable to audits of separate financial statements under Italian Laws. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the separate financial statements of the current period. These matters were addressed in the context of our audit of the separate financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

We identified the following key audit matters:

Key Audit Matter	Audit Response
Impairment test of goodwill	
As of December 31, 2021 goodwill amounts to Euro 12,961 million and refers to the Domestic cash generating unit ("CGU"). Based on the impairment test performed as of December 31, 2021, an impairment loss of Euro 4,120 has been recorded for the Domestic CGU. The processes and methodologies used by the Company to evaluate and determine the recoverable amount of the Domestic CGU, are based on assumptions that are in some cases complex and that, due to their nature, imply the use of judgement by Management, in particular with reference to the forecast of future cash flows and to the estimate of the long-term growth and discount rates applied to the future cash flow forecasts. Considering the level of judgment required and the complexity of the assumptions applied in estimating the recoverable amount of goodwill, we considered this area a key audit matter. Disclosures related to the assessment of goodwill are reported in note 3 "Goodwill" and in note 2 "Accounting policies" in the paragraphs "Intangible assets - Goodwill"," Impairment of intangible, tangible and rights of use assets - Goodwill" and "Use of estimates".	Our audit procedures in response to the key audit matter included, among others: ► the assessment of the processes implemented by the Company with reference to the criteria and methodology of the impairment test; ► the validation of the CGUs perimeter and test of the allocation of the carrying value of the Company's assets to each CGU; ► the assessment of the reasonableness of the future cash flow forecasts, including comparisons with sector data and forecasts, utilized in the fair value determination; ► the assessment of the consistency of the future cash flow forecasts of the Domestic CGU with the business plan; ► the assessment of forecasts in light of their historical accuracy; ► the assessment of the reasonableness of long-term growth rates and discount rates. The procedures referred to in the previous points also concerned the analysis of the assessments performed by the independent experts appointed by the Company. In performing our analysis, we involved our experts in valuation techniques, who performed an independent recalculation and carried out sensitivity analyses on the key assumptions in order to determine which changes in the assumptions could materially affect the recoverable amount. Lastly, we reviewed the adequacy of the disclosure provided in the notes to the separate financial statements with regards to the valuation of goodwill.

Building a better working world

Revenue recognition	
TIM's revenues amounted to € 12.397 million as of December 31, 2021 and refer almost entirely to the telecommunications services rendered to retail and wholesale customers (other telecommunications operators). Procedures over the accounting of revenues required significant focus in the context of our audit procedures due to i) a highly complex accounting process due to the number of commercial offers, the number of underlying application systems and the related reconciliation processes, ii) the presence of certain manual phases in the revenue recognition process, in particular for services provided to large customers and iii) the complexity in estimating commitments connected to certain contracts. The Company provides the relative disclosure in Note 24 "Revenues" of the separate financial statements.	Our audit procedures in response to the key audit matter included, among others: ► an understanding of the processes underlying the revenue recognition; ► the understanding and verification of the design and operation of the relevant controls over the revenue recognition process; ► the analysis of the application systems supporting the revenue recognition process; ► the assessment that the accounting policy adopted for the main commercial offers is consistent with the provisions of the reference accounting standard; ► the analysis, on a sample basis, of some significant transactions relating to invoices issued and invoices to be issued, in order to verify that the contractual data and the evidence supporting the actual service rendered and / or goods transferred were consistent with the accounting policy adopted; ► the analysis of the valuation of certain contracts identified as onerous contracts; ► the reconciliation of the management account with the accounting records in connection with the main balance sheet items related to customer relations; ► the analysis of the manual journal entries. We also required external confirmations for a sample of customers and transactions. Lastly, we reviewed the adequacy of the disclosure provided in the notes to the separate financial statements with regard to the revenue recognition process.
Regulatory disputes	
As of December 31, 2021, TIM is involved in several regulatory disputes in progress, many	Our audit procedures in response to the key audit matter included, among others:

of which are characterized by significant counterparty requests.

The main disputes concern (i) the 28-day billing proceeding, in which AGCOM ordered TIM to reimburse customers for unused service days, (ii) the I820 proceeding, started by AGCM against TIM and other telco operators, to ascertain a possible conduct restricting market competition and (iii) the A514, and the related “follow-on” proposed by some other OLOs, procedure in which the AGCM charged TIM with conduct aimed at hindering the entry on the market of a new operator.

The assessment of the disputes was carried out by Management, as of 31 December 2021, based on the opinion of the external lawyers, as well as considering the latest information available.

The estimation of the risks connected to the disputes in which the Company is involved, requires a high degree of judgment by the management and, also considering the complexity of the regulatory framework, we considered this area a key audit matter.

Disclosure related to the assessment of the risks relating to the regulatory disputes in which the Company is involved is reported in note 23 "Disputes and pending legal actions, other information, commitments and guarantees".

- an understanding of the process put in place by Management for assessing disputes, accompanied by test of the effectiveness of the internal controls relevant for this process;
- inquiries with Management regarding the main assumptions made in connection with disputes;
- the analysis of the legal opinions prepared by external consultants, based on which Management has based its assessments;
- the analysis of the letters received from external lawyers following our external confirmations procedures.

Lastly, we reviewed the adequacy of the disclosure provided in the notes to the separate financial statements with regard to the disputes in which the Company is involved, based on their compliance with the international accounting standards and their consistency with the results of our audit procedures.

Recoverability of deferred tax assets

As of December 31, 2021, deferred tax assets amount, net of impairment, to Euro 3,364 million in the separate financial statements.

The recoverability analysis of the deferred tax assets performed as of December 31, 2021, led to an impairment loss of Euro 3,825.

Deferred tax assets refer to the temporary deductible differences between the book and fiscal values of assets and liabilities in the financial statements.

The recoverability of the carrying amount of

Our audit procedures in response to the key audit matter included, among others:

- the assessment of the reasonableness of the assumptions underlying the estimation of future taxable income and the reconciliation with the figures included in the Company's business plan, taking into account the regulatory changes that took place during 2021 ;
- the assessment of the reasonableness of the accuracy of the forecasts compared with the prior periods;

the deferred tax assets is subject to management's evaluation and is based on the estimations of the future taxable income expected in the years in which them will be reversed.

The processes and methodologies used to evaluate and determine the recoverable amount of these assets, are based on assumptions that are in some cases complex and that, due to their nature, imply the use of judgement by Management, in particular with reference to the consistency of the forecasts of future taxable income expected by the Company with those included in the business plan.

Considering the level of judgment required and the complexity of the assumptions applied in estimating future taxable amount used to determine the recoverability of the deferred tax assets, we considered this area a key audit matter.

Disclosures related to the assessment of recoverability of deferred tax assets are reported in note 2 "Accounting policies" in the paragraphs "Income tax expense (current and deferred)" and "Use of estimates" and in note 10 "Income tax expense (current and deferred)".

- the assessment of the Management calculations.

Lastly, we reviewed the adequacy of the disclosures provided in the notes to the separate financial statements with regards to the recoverability of deferred tax assets.

Responsibilities of Directors and Those Charged with Governance for the Separate Financial Statements

The Directors are responsible for the preparation of the separate financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union and with the regulations issued for implementing art. 9 of Legislative Decree n. 38/2005, and, within the terms provided by the law, for such internal control as they determine is necessary to enable the preparation of separate financial statements that are free from material misstatement, whether due to fraud or error.

The Directors are responsible for assessing the Company's ability to continue as a going concern and, when preparing the separate financial statements, for the appropriateness of the going concern assumption, and for appropriate disclosure thereof. The Directors prepare the separate financial statements on a going concern basis unless they either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

The statutory audit committee ("Collegio Sindacale") is responsible, within the terms provided by the law, for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Separate Financial Statements

Our objectives are to obtain reasonable assurance about whether the separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with International Standards on Auditing (ISA Italia) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these separate financial statements.

As part of an audit in accordance with International Standards on Auditing (ISA Italia), we have exercised professional judgment and maintained professional skepticism throughout the audit. In addition:

- we have identified and assessed the risks of material misstatement of the separate financial statements, whether due to fraud or error, designed and performed audit procedures responsive to those risks, and obtained audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- we have obtained an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control;
- we have evaluated the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors;
- we have concluded on the appropriateness of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the separate financial statements or, if such disclosures are inadequate, to consider this matter in forming our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern;
- we have evaluated the overall presentation, structure and content of the separate financial statements, including the disclosures, and whether the separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We have communicated with those charged with governance, identified at an appropriate level as required by ISA Italia, regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We have provided those charged with governance with a statement that we have complied with the ethical and independence requirements applicable in Italy, and we have communicated with them all matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we have determined those matters that were of most significance in the audit of the separate financial statements of the current period and are therefore the key audit matters. We have described these matters in our auditor's report.

Additional information pursuant to article 10 of EU Regulation n. 537/14

The shareholders of TIM S.p.A., in the general meeting held on March 29, 2019, engaged us to perform the audits of the separate and consolidated financial statements for each of the years ending December 31, 2019 to December 31, 2027.

We declare that we have not provided prohibited non-audit services, referred to article 5, par. 1, of EU Regulation n. 537/2014, and that we have remained independent of the Company in conducting the audit.

We confirm that the opinion on the separate financial statements included in this report is consistent with the content of the additional report to the audit committee (Collegio Sindacale) in their capacity as audit committee, prepared pursuant to article 11 of the EU Regulation n. 537/2014.

Report on compliance with other legal and regulatory requirements

Opinion on the compliance with Delegated Regulation (EU) 2019/815

The Directors of TIM S.p.A. are responsible for applying the provisions of the European Commission Delegated Regulations (EU) 2019/815 for the regulatory technical standards on the specification of a single electronic reporting format (ESEF – European Single Electronic Format) (the "Delegated Regulation") to the separate financial statements, to be included in the annual financial report.

We have performed the procedures under the auditing standard SA Italia n. 700B, in order to express an opinion on the compliance of the separate financial statements with the provisions of the Delegated Regulation.

In our opinion, the separate financial statements have been prepared in the XHTML format in compliance with the provisions of the Delegated Regulation.

Opinion pursuant to article 14, paragraph 2, subparagraph e), of Legislative Decree n. 39 dated 27 January 2010 and of article 123-bis, paragraph 4, of Legislative Decree n. 58, dated 24 February 1998

The Directors of TIM S.p.A. are responsible for the preparation of the Report on Operations and of the Report on Corporate Governance and Ownership Structure of TIM S.p.A. as at December 31, 2021, including their consistency with the related separate financial statements and their compliance with the applicable laws and regulations.

We have performed the procedures required under audit standard SA Italia n. 720B, in order to express an opinion on the consistency of the Report on Operations and of specific information included in the Report on Corporate Governance and Ownership Structure as provided for by article 123-bis, paragraph 4, of Legislative Decree n. 58, dated 24 February 1998, with the separate financial statements of TIM S.p.A. as at December 31, 2021, and on their compliance with the applicable laws and regulations, and in order to assess whether they contain material misstatements.

In our opinion, the Report on Operations and the above mentioned specific information included in the Report on Corporate Governance and Ownership Structure are consistent with the separate financial statements of TIM S.p.A. as at December 31, 2021, and comply with the applicable laws and regulations.

With reference to the statement required by art. 14, paragraph 2, subparagraph e), of Legislative Decree n. 39, dated 27 January 2010, based on our knowledge and understanding of the entity and its environment obtained through our audit, we have no matters to report.

Statement pursuant to article 4 of Consob Regulation implementing Legislative Decree n. 254, dated 30 December 2016

The Directors of TIM S.p.A. are responsible for the preparation of the non-financial information pursuant to Legislative Decree n. 254, dated 30 December 2016. We have verified that non-financial information have been approved by Directors.

Pursuant to article 3, paragraph 10, of Legislative Decree n. 254, dated 30 December 2016, such non-financial information are subject to a separate compliance report signed by us.

Turin, March 16, 2022

EY S.p.A.
Signed by: Ettore Abate, Auditor

This report, that includes the opinion on the TIM S.p.A.'s compliance with other legal and regulatory requirements as applicable to our audit, has been translated into the English language solely for the convenience of international readers. Accordingly, we express no such opinions in respect of the English translation of the consolidated financial statements of TIM S.p.A. and XHTML format thereof.

Other information

REPORT OF THE BOARD OF STATUTORY AUDITORS TO THE SHAREHOLDERS' MEETING PURSUANT TO ARTICLE 153 OF ITALIAN LEGISLATIVE DECREE NO. 58/1998

Dear Shareholders,

This report (hereinafter the "Report") provides information to the shareholders of TIM S.p.A. (hereinafter also referred to as the Company) on the supervisory activities carried out by the Board of Statutory Auditors in the financial year 2021 and the omissions and actions subject to censure pursuant to art. 153 of Legislative Decree 58/1998 (CLF), art. 2429 of the Italian civil code, the standards of conduct for the Board of Statutory Auditors recommended by CNDCEC (the Italian Board of chartered accountants and accounting consultants), Consob notices on company controls and the indications given in the Corporate Governance Code.

This Report is prepared as required by Consob Notice no. DEM/1025564 of 6 April 2001 and subsequent amendments and supplements.

The Board of Statutory Auditors has acquired the information necessary for the performance of the tasks of general supervision assigned to it by attending meetings of the Board of Directors and the board committees, meetings with the Company management, meetings with the External Auditor, with the Supervisory Body and with the corresponding control bodies of the TIM Group companies, analysis of information flows from the competent company departments, as well as further control activities.

The Board of Statutory Auditors in office as at the date of the Report was appointed by the Shareholders' Meeting on 31 March 2021 for the financial years 2021-2023 and will therefore expire with the Shareholders' Meeting called to approve the financial statements as at 31 December 2023.

The Board of Statutory Auditors is made up of the Standing Auditors Francesco Fallacara (Chairman), Angelo Rocco Bonissoni, Francesca di Donato, Anna Doro and Massimo Gambini.

First of all, the Board of Statutory Auditors recalls that, by resolution on 26 November 2021 the Board of Directors revoked the powers granted to the previous Chief Executive Officer, Luigi Gubitosi, assigning them in part to the Chairman of the Board of Directors and in part to the newly appointed General Manager, Pietro Labriola, formerly Chief Executive Officer of TIM Brazil S.A. Following this resolution, the search for a new Chief Executive Officer was started by the Nomination and Remuneration Committee with the assistance of an external consultant.

This search was completed on 21 January 2022 by the resolution of the Board of Directors which (i) after obtaining the approval of the Board of Statutory Auditors on the co-option resolution, co-opted Pietro Labriola, who retained the position of General Manager (ii) appointed the said Director, Pietro Labriola, as Chief Executive Officer of TIM, and (iii) revoked the powers granted to the Chairman, assigning them to the new Chief Executive Officer, with the exception of the Communication power relating to the indicative non-binding expression of interest received from Kohlberg Kravis Roberts & Co. L.P. ("KKR").

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The Board of Statutory Auditors also notes that, at the date of this Report, the health emergency caused by the COVID-19 infection (so-called "COVID-19") is still ongoing.

In this regard, over the year 2021, the Board of Statutory Auditors continued to monitor the evolution of the relative regulatory framework and the rulings issued by the competent Authorities to deal with the ongoing epidemiological emergency, insofar as related to the supervisory activities it is responsible for with reference to TIM. The Board has received constant information from the Company on the actions taken to safeguard the health of its employees in compliance with the emergency regulations in force at the time. With regard to the above, there are no items of attention to be submitted to the Shareholders' Meeting of the Company.

1. Considerations on the 2021 financial statements and on transactions undertaken by the company of major impact on its revenues, finances and assets, and their compliance with the laws and the company articles of association

It should be noted that TIM's financial statements have been drawn up in accordance with the IAS/IFRS international accounting standards issued by the International Accounting Standards Board (IASB), endorsed by the European Union, and in force as at 31 December 2021, as well as with the provisions issued in implementation of article 9 of Legislative Decree no. 38/2005. The financial statements also include the disclosures required by Law 124/2017 (Article 1, subsections 125-129).

The Directors' Report on Operations summarises the main risks and uncertainties and gives an account of the business outlook.

The Company's financial statements comprise the Statement of Equity and Financial Position, the Income Statement, the Comprehensive Income Statement, the Statement of Changes in Equity, the Cash Flow statement and the Notes to the Financial Statements.

The financial statements are accompanied by the Directors' Report on Operations, the Report on Corporate Governance and Share Ownership drawn up in accordance with Article 123-bis of the CLF, as well as the Consolidated Non-financial Statement pursuant to Legislative Decree no. 254 of 30 December 2016, drawn up by the Company in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative

(GRI) - Comprehensive option. The financial statements are also accompanied by the Report on the Remuneration Policy and Compensation Paid, consisting of the Remuneration Policy 2022 ("2021 Policy") and report on compensation paid in 2021.

Tim's separate financial statements and consolidated financial statements 2021 contain the required statements of compliance by the Chief Executive Officer and the Executive responsible for preparing the corporate accounting documents.

The consolidated financial statements of Tim for the financial year 2021 are summarised below:

Revenues	€ 15,316 million
Operating profit (EBIT)	- € 3,529 million
Profit/(Loss) for the year	- € 8,400 million

Adjusted net financial debt as at 31 December 2021 amounted to 22,187 million euros compared to 23,326 million euros on 31 December 2020.

The parent company, Tim S.p.A., closed the year with a loss of 8,314.0 million euros (profit of 7,161 million euros in 2020).

As indicated in the consolidated report on operations, and on the basis of the information received and as a result of the analyses conducted, it emerged that the transactions carried out by the Company in 2021 which have major impact on revenues, finances and assets, including transactions performed through companies in which the Company has a direct or indirect stake, are essentially made up as follows:

FiberCop

The project to broaden optic fibre coverage nationwide aims to make a decisive contribution to reducing the digital divide in Italy, speeding up the process of customers switching from copper to fibre.

This operation is being carried out by FiberCop S.p.A., which was set up through the transfer of a business unit by TIM S.p.A. (58%) and purchase of capital by KKR (via Teemo Bidco Sarl through the purchase of 37.5%) and Fastweb (4.5% through the merger by incorporation of Flash Fiber).

Specifically, the following operations were completed on 31 March 2021:

- transfer of TIM's secondary network;
- transfer of Fastweb's equity investment in Flash Fiber S.r.l., the joint venture owned by TIM (80%) and Fastweb (20%);
- merger of Flash Fiber into FiberCop contributing the fibre optic network already deployed in 29 towns;
- purchase by Teemo Bidco Sarl of 37.5% of FiberCop from TIM.

Specifically, the company's purpose is to design, build and operate infrastructure for the provision of wired access in end-user premises to telecommunications operators, with the aim of reaching 75% of households in the areas referred to as grey and black, by 2025.

Under the Master Service Agreement between Tim and FiberCop, which regulates the provision of mutual services, both parties have made certain commitments: Tim, in particular, has made annual commitments to FiberCop in terms of the minimum purchase of services and migration of the customer base from copper to fibre optic and the implementation of the horizontal FTTH network. With regard to these commitments, the agreements provide for penalties to be paid by each party in the event that they are not observed and rights of Teemo BidCo, as a minority shareholder, to safeguard any failure by Tim to honour the commitments contractually undertaken, all in line with market practices. These penalties for the parties and rights of the minority shareholder, which were assessed during the preparation of the financial statements and are subject to reconsideration at the end of each accounting period, have been monitored by the Board of Statutory Auditors.

Cloud Services

The plan to extend TIM's leadership in cloud services and seize business opportunities in the market, including in terms of overall security, by transferring all the cloud assets and expertise already present in various TIM business functions to Noovle S.p.A.

Specifically, the operation follows on from a collaboration agreement with Google Cloud for the creation of innovative public, private and hybrid cloud services to enrich TIM's range of technological services.

The operation is expected to accelerate cloud sales on the market, ensuring the optimisation of infrastructure and operations, while also enabling further development of cloud expertise and achieving important sustainability goals.

The transactions indicated above are explained in detail in the notes to the consolidated financial statements of the TIM Group and the notes to the separate balance sheet of TIM S.p.A., as well as in the report on operations for the year 2021.

The Board of Statutory Auditors has verified that the above transactions comply with the law, the Company bylaws and the principles of correct administration, and has made sure that they were not manifestly imprudent or hazardous, in conflict with the resolutions adopted by the Shareholders' Meeting or likely to compromise the integrity of the corporate assets.

It is also pointed out that following year end, the following significant events took place:

TIM S.A.

The offer submitted by TIM S.A., the Brazilian subsidiary of the TIM Group, for the purchase of the mobile business of the Oi Group, together with Telefonica Brasil S.A. (VIVO) and Claro S.A., has been approved by the antitrust authority CADE (Conselho Administrativo de Defesa Economica).

This decision follows the decision of the Anatel Regulatory Authority, which, on 1 February 2022, had issued a favourable opinion on the transfer of control of Oi's mobile business.

The completion of this agreement is subject to the achievement of certain conditions set forth in the sales contract.

Realignment of tax values

As at 31 December 2020, TIM has benefited from the possibility of realigning the tax values to the greater value of the assets booked, specifically the value of goodwill, as envisaged by Decree Law 104/2020, Art. 110, subsections 8 and 8 bis.

In its original formulation, from 2021 this rule would have allowed the deduction of the new value recognised for tax purposes over 18 financial years, subject to payment of a 3% substitute tax on the realigned value.

As a result of the above, the Company legitimately recognised deferred tax assets ("DTA") of 6.6 billion euros in the financial statements for the year ended 31 December 2020, so as to reap the benefits in terms of lower IRES and IRAP.

As known, article 1 of Law no. 234 of 30 December 2021 amended the above-mentioned art. 110 of Legislative Decree no. 104/2020, stipulating that "the deduction for the purposes of income tax and regional tax on productive activities of the higher value charged ... is made, in any event, to an extent not exceeding, for each tax period, one fiftieth of said amount", and no longer one eighteenth.

It should be borne in mind that the new provision, alternatively in derogation of the above, allows parties who have benefited from the realignment to waive said realignment (with the right to reimbursement of the first instalment of the substitute tax paid) or maintain the deduction over 18 years, paying a further substitute tax to the extent of that established by article 176, subsection 2-ter, of Presidential Decree no. 917/1986 (up to a maximum of 16%).

Due to the extension of the tax deduction period to 50 years, it became necessary to assess the recoverability of the entire amount recorded as DTA as at 31 December 2020 in the 2021 financial statements. The Company therefore decided to limit the recognition to deferred tax assets relating to the next 25 years only, with a write-down of 2,766 million euros for IRES, equal to 50% of the deferred tax assets recorded in 2020, and 1,059 million euros for the remaining amount of the IRAP deferred tax assets recognised.

Back to Basic

At its meeting on 2 March 2022, the Board of Directors approved a new 2022-2024 industrial plan, prepared by the Company with the assistance of external consultants and submitted to the financial community on 3 March 2022.

KKR Expression of interest

On 13 March 2022 the Board of Directors met to evaluate the indicative and non-binding expression of interest sent to the Company by the US private equity fund "KKR" and unanimously resolved to issue a mandate to the Chairman and the Chief Executive Officer to initiate a formal discussion with KKR, in addition to those already undertaken informally in recent months by the consultants, with a view to achieving maximum value for Tim, also with reference to any other interested parties.

Russia – Ukraine conflict

In February 2022, Russia launched a military operation on Ukrainian territory, the consequences of which on the global political economic balance are currently unmeasurable.

The European Union and many other countries have put in place economic sanctions against Russia and Belarus, which are particularly stringent and others may be decided later.

For the Tim Group, and in particular for Telecom Italia Sparkle S.p.A, there may be repercussions on commercial relations, the collection of trade receivables and assets in the country, the variation of which, although dependent on how the conflict develops, is not currently considered significant by the Company.

The invasion of Ukraine by Russia opens up economic implications which could be extreme in relation to energy supply. The electricity consumed by Tim depends almost entirely on suppliers and the Tim Group is therefore naturally exposed to fluctuations in energy costs that could obstruct the achievement of business targets in terms of reducing margins and cash flows. To mitigate this exposure, among its ongoing actions for the year 2022, Tim has hedged the bulk of its fixed-price requirements.

In relation to the Russia-Ukraine war, Tim, which is acting in coordination with the Agency for National Cyber Security (ACN), has raised the alert level in relation to Cyber risk.

2. Report of any atypical and/or unusual transactions, including intra-group

The Board of Statutory Auditors found the following atypical and/or unusual third party transactions over the financial year 2021:

- provision for a total of 548 million euros relating to the onerous nature of certain media content contracts, mainly referring to the contract signed with DAZN to broadcast football matches from the Italian Serie A Championship for the three football seasons 2021/2022 - 2022/2023 - 2023/2024; the Board of Statutory Auditors' analyses, in agreement with the corporate bodies, led to the conclusion that, due to several specific contractual commitments and some phenomena that have prevented the number of subscribers envisaged in the original investment plan from being reached, the contract is not expected to reach the "break-even" point for the three-year period and cover costs from revenues. Initial analyses carried out by the Internal Audit department reveal inadequate information flows to the decision-making bodies and a consequent anomaly in the decision-making processes during approval of the project;
- contracts for the sale of goods with deferred delivery, effective as of FY 2020. During the fourth quarter of FY 2021, at the instigation of the Board of Statutory Auditors, TIM conducted in-depth reviews and analyses regarding the accounting of the execution of these commercial agreements for such goods with deferred delivery. These analyses resulted in a restatement of the time distribution of revenues and purchases of materials and services starting from FY 2020 up to the third quarter of FY 2021. As a result of the time reallocation, the Company has reversed revenues and related purchase costs related to the first three quarters of FY 2021. For the year 2020, the Company considered these effects to be immaterial; the Independent Auditor did not make any comments.

All the above operations are commented on in the Directors' Report on Operations and the related economic and financial effects can be found in Note 2 to the 2021 Consolidated Annual Financial Report. The Board analysed the above operations and the related agreements, bringing to the attention of the Board of Directors the shortcomings and weaknesses in the decision-making process, the monitoring of the supply chain and the accounting process, as well as the economic rationale and social interest of the entire operation. The above-mentioned shortcomings and weaknesses were also reported by the Board of Statutory Auditors to Consob pursuant to art. 149 of the CLF.

3. Assessment of the adequacy of the information provided in the directors' report on operations concerning atypical and/or unusual transactions, including intra-group and related party transactions.

Having received the binding opinion of the Related Parties Committee and the Board of Statutory Auditors, at the meeting on 23 June 2021 the Board of Directors approved the updated version of the internal regulations on the Management of Related Party Transactions, incorporating the changes made following Consob Resolution no. 21624/2020, which came into force on 1 July 2021.

The Company's financial statements provide information on Related Party transactions and the Board of Statutory Auditors, in carrying out its activities, has not found, at least up to the date of this report, any atypical and/or unusual transactions carried out in FY 2021 with Related Parties (including Group companies). However, it notes that for the operations in question there is a need to strengthen internal controls for an increasingly improved formalization of the agreements stipulated. In this context however, the Board of Statutory Auditors believes that the report on the Company's transactions with related and intra-group parties, provided in the notes to the separate financial statements of TIM S.p.A. and the consolidated financial statements of the TIM Group, should be considered adequate.

The transactions with Directors' interests or with other Related Parties, were subjected to the transparency procedure set out in the applicable regulations.

The Board of Statutory Auditors acknowledges that the information relating to the principal intra-group transactions and transactions with other related parties executed in 2021, and the description of their characteristics and related economic effects, is contained in the notes to the separate financial statements of TIM S.p.A. and to the consolidated financial statements of the TIM Group.

It should be noted that, based on the relative assessments carried out by the Related Parties Committee during the second half of 2021, Cassa Depositi e Prestiti and its subsidiaries were included in the scope of related companies.

Over FY 2021, there were both intra-group and non-intra-group Related Party transactions.

Intra-group transactions analysed by the corporate bodies in 2021, the effects of which are reported in the financial statements, are all ordinary in nature, as they essentially consist of transactions with no significant interests of other non-intra-group Related Parties. These were regulated applying normal conditions determined according to standard parameters, reflecting the actual use of the services and were carried out in the interest of Group Companies, as they were aimed at optimising use of the Group's resources.

The documentation submitted to the company bodies shows that the transactions with Related Parties other than intra-group transactions we examined are also of an ordinary nature (since they fall within the ordinary exercise of operating activities or related financial activities) and/or concluded at conditions equivalent to market or standard conditions and are in the interest of the Company. These transactions have been periodically reported to us by the Company.

Intra-group transactions and Related Party transactions of an ordinary or recurring financial nature are of marginal importance in terms of number and amount.

We attended the meetings of the Related Parties Committee, during which it expressed a favourable opinion on some related party transactions of "lesser importance", having assessed the Company's interest in carrying out the transaction as well as the appropriateness and advantage of the relative conditions.

The Board of Statutory Auditors had no reason to raise objections as to whether all the transactions examined by it during the reporting period were in the Company's interest.

For the sake of completeness, however, it should be noted that analyses of some contracts with Related Parties, and/or counterparties of Related Parties, entered into in 2021 are in progress, for which the Board of Statutory Auditors needs to examine in greater detail certain contractual characteristics and effects.

The effects of all of the above related party transactions for the year 2021 are fully reflected in the financial statements.

We have monitored compliance with the Related Parties Procedure and the correctness of the process followed by the Board and the relevant Committee, on the subject of qualification of Related Parties - agreeing, inter alia, with the assessments expressed by the RPT Committee regarding the qualification of Tim's Related Parties and we have nothing to report.

4. Remarks and proposals on the reporting references and notes contained in the report of the independent auditor.

On 16 March 2022, the independent auditor EY S.p.A. (hereinafter also referred to as “EY”), issued the reports pursuant to art. 14 of Legislative Decree no. 39/2010 and art. 10 of Regulation EU no. 537/2014, attesting that the separate financial statements of TIM S.p.A. and the consolidated financial statements of the TIM Group as at 31 December 2021 provide a truthful and correct representation of the equity and financial position, the economic results and cash flows for the year ended as at that date, in compliance with the International Financial Reporting Standards adopted by the European Union, as well as with the provisions issued in implementation of Article 9 of Legislative Decree no. 38 of 28 February 2005.

In these documents, the auditing firm EY - pursuant to art. 154-ter CLF, as amended by art. 25 of Law no. 238 of 23/12/2021 - also issued its opinion on the compliance of the draft financial statements and the consolidated financial statements, included in the annual financial report, with the provisions of the Delegated Regulation (EU) 2019/815 of the Commission of 17 December 2018, based on the auditing standard (SA Italia 700B).

As part of its general duty to monitor compliance with the law and the Bylaws, the Board notes that the company has complied with the provisions of the said EU Regulation No. 2019/815.

In the report on the consolidated financial statements as at 31 December 2021, the Auditor concludes as follows *"in our opinion, the consolidated financial statements provide a truthful and correct representation of the equity and financial position of the Group as at 31 December 2021, the economic results and cash flows for the year ended as at that date, in compliance with the International Financial Reporting Standards adopted by the European Union, as well as with the provisions issued in implementation of Article 9 of Legislative Decree no. 38 of 28 February 2005"*.

In the report on the separate financial statements as at 31 December 2021, the Auditor concludes as follows *"in our opinion, the annual financial statements provide a truthful and correct representation of the equity and financial position of the Company as at 31 December 2021, the economic results and cash flows for the year ended as at that date, in compliance with the International Financial Reporting Standards adopted by the European Union, as well as with the provisions issued in implementation of Article 9 of Legislative Decree no. 38 of 28 February 2005"*.

On 16 March 2022, EY also issued the additional Report for the Committee for Internal Control and Audit on the results of the external audit of the accounts, which also includes the declaration on the independence of the external auditor.

In short, the findings of the above report were as follows:

- *"In our professional opinion, having performed the relative tasks, we consider the directors' approach of considering that there are no uncertain factors affecting the going concern assumption, such as should be disclosed in the financial statements, consistent with the context of the company and the evidence gathered.*
- *During the course of the audit of the Company's financial statements and the Group's consolidated financial statements for the year ended 31 December 2021, no significant shortcomings in the internal control system for financial reporting and/or the accounting system were identified.*
- *During the audit of the Company’s financial statements and of the Group’s consolidated financial statements closed on 31 December 2021, no significant issues were identified in respect of cases of effective or alleged non-conformity with laws and regulations or statutory provisions.”*
- *As stated in Note 2 to the Consolidated Financial Statements, during the fourth quarter of FY 2021, with reference to certain commercial agreements involving the sale of goods with deferred delivery, the Company restated its revenues and costs for purchases of materials and services during the first, second and third quarters of 2021 as a result of certain accounting revisions. Similar transactions in 2020 had generated non-material economic effects.*

The Board of Statutory Auditors will inform the Company's Board of Directors of the results of the external audit, to this end sending across the additional report complete with any observations.

The independent auditor also considers that the report on operations and the information in the Report on corporate governance and share ownership indicated in art. 123-bis, subsection 4 of the CLF are consistent with the TIM S.p.A.’s financial statements for the period and the consolidated financial statements for the TIM Group at 31 December 2021.

5. **Reports on the presence of any complaints pursuant to article 2408 of the italian civil code regarding initiatives undertaken and their outcomes**

From the date of the previous report (10 March 2021) until the date of this Report (16 March 2022), one report was received from Company shareholders, made in accordance with art. 2408, subsection 3 of the Civil Code, more specifically on 15 March 2022. The Board will proceed with the appropriate enquiries. As at the date of this Report, there are no items to report to the Shareholders' Meeting.

6. **Report on the presence of any complaints regarding initiatives undertaken and their outcomes**

A procedure is in place regulating the methods by which reports can be made to the control body. There are instructions on the About Us section of the Company's website (Company Bodies – Board of Statutory Auditors – Role, tasks and responsibilities), for sending such reports - in paper or electronic format - to the Board of Statutory Auditors of the Company.

The Company also has a Whistleblowing Procedure, updated also following the assignment of the role of Supervisory Body to a separate body from the Board, which envisages the institution of information channels able to guarantee the receipt, analysis and processing of reports made relating to internal control problems, corporate information, administrative liability of the Company, fraud or in any case behavioural anomalies in reference to TIM staff or third parties, in violation of laws and regulations and/or non-conformity with the Code of Ethics and the Organisational Model 231, as well as with the system of rules and procedures in force in the TIM Group, submitted by employees, members of company bodies or third parties, even anonymously.

Since the date of the previous report (10 March 2021) and up to the date of this report (16 March 2022), 13 reports (24 in the previous year) have been received, mostly regarding technical problems and shortcomings of a commercial and administrative nature.

The Board of Statutory Auditors investigated all these reports appropriately, with the assistance of the competent Company departments, instructing such departments where necessary to adopt appropriate solutions, but no irregularities to be reported to the Shareholders' Meeting emerged. The Board of Statutory Auditors has welcomed the Company's efforts to promote initiatives aimed at developing a company culture characterised by correct behaviour and has repeatedly indicated to the Board of Directors the importance of focusing on correct behaviour at every stage of Company management, to such purpose promoting specific programmes aimed at its internal structure.

7. **Report on any appointments conferred on the independent auditor and the corresponding costs**

In 2021, the Board of Statutory Auditors, together with the Company departments, verified and monitored the independence of the Auditor as required by the relevant laws and regulations. Specifically, with regard to services other than auditing (so-called "non-audit services") rendered by the Auditor to the Company. The Company procedures, which also extend to its subsidiaries, require that each non-audit assignment be submitted for prior assessment and binding approval by the Company's Board of Statutory Auditors.

During the 2021 financial year TIM S.p.A. appointed EY S.p.A. to undertake various tasks other than audits of financial statements, the fees for which, before VAT and out-of pocket expenses, are summarised below:

EY S.p.A.	(in euro)
Issue of comfort letters connected with the renewal of the Euro Medium Term Notes Programme and relating to the issue of the Sustainability Bond;	80,000.00
Review of the working papers of other independent auditors relating to INWIT S.p.A. on the Consolidated financial report as at 30.06.2021	25,000.00
Verification services related to obtaining specific tax or contribution regimes:	
• relating to the statement of expenses incurred for R&D and technological innovation aimed at obtaining tax credits for TIM S.p.A.;	90,000.00
• for compliance approval pursuant to art. 35 of Legislative Decree no. 241 of 9 July 1997 on the tax return of TIM S.p.A. and the domestic tax consolidation statement;	3,000.00
Other audit services (voluntary appointments):	
• relating to the assurance and assessment of the Non-Financial Statement (carried out according to ISAE 3000 and ISAE 3410);	76,000.00
• for the complete examination of the European Single Electronic Format ("ESEF") disclosure in reference to the consolidated financial statements of TIM S.p.A. as at 31 December 2020 (carried out in accordance with standard ISAE 3000 (Revised))	20,000.00
Miscellaneous certification services: appointment granted in accordance with International Standard on Assurance Engagement 3402 ("ISAE 3402") for the issue of the SOC 1 report to the client Acciaierie d'Italia S.p.A. for the provision of services by TIM	65,000.00
Overall total	**359,000.00**

In addition, during the period between 1 January 2022 and the date of this Report, TIM S.p.A. conferred upon EY S.p.A. the following additional appointments, other than audits of financial statements, the fees for which, before VAT and out-of pocket expenses, are summarised below:

EY S.p.A.	(in euro)
Review of the working papers of other independent auditors relating to INWIT S.p.A. on the Consolidated financial report as at 31/12/2021	45,000.00
Other auditing services: • additional audit activities relating to the technological migration of certain TIM applications and infrastructures relating to Financial Reporting; • additional audit engagement related to the obligation, as of FY 2021, for issuers to prepare their financial reports, in accordance with ESEF (drafting in XHTML format and "tagging" the information included in the ESEF Disclosure using iXBRL language), as required by Directive 2013/50/EU. The Group Auditor's assurance activities are based on Auditing Standard (SA Italia) 700B	142,000.00 20,000.00
Total	**207,000.00**

In accordance with the current "Guidelines for the Conferral of Appointments on Independent Auditors", the conferral of the above appointments had been approved in advance by the Board of Statutory Auditors.

8. Report on any appointments conferred on parties connected by continuing relationships with the independent auditor and the corresponding costs

During FY 2021 TIM S.p.A. did not confer any appointment on subjects bound by continuous relationships with EY S.p.A. and/or companies belonging to the latter's network.

9. Report on the existence of opinions issued pursuant to law during the financial year

The Board of Statutory Auditors expressed its favourable opinion, pursuant to art. 2389, subsection 3 of the Italian Civil Code, with regard to the proposed remuneration package for the Chairman and the Chief Executive Officer, on 16/4/2021 (Board of Statutory Auditors) - 28/4/2021 (Board of Directors).

The Board of Statutory Auditors also expressed a favourable opinion, pursuant to the Company's Corporate Governance Principles, on the following proposals:

- appointment of the Executive responsible for preparing the corporate accounting documents, on 01/04/2021;
- integration of the composition of the Supervisory Board 231, with a member of the Board of Statutory Auditors;
- appointment and remuneration of the Head of the Audit Department, on 16/4/2021 (Board of Statutory Auditors) - 28/4/2021 (Board of Directors);
- activity plans of the Audit, Compliance and IT& Security Compliance departments, on 28/04/2021;
- reorganization of the compliance oversight, on 28/4/2021;
- reorganization of the privacy oversight, on 28/4/2021;
- modification of the MBO score card of the Head of the Compliance Department, dated 23/6/2021;
- remuneration of the LID, on17/12/2021.

In addition, on 1/4/2021 the Board of Statutory Auditors ascertained that its members complied with the legal requirements; on 16/4/2021 and 22/2/2022 it verified the correct application of the criteria and procedures adopted by the Board of Directors to ascertain the Directors' requirements.

In 2021, the Head of the "Internal Audit" department changed, taking office as of 14 June 2021, with the favourable opinion of the Board of Statutory Auditors. Despite this situation of turnover, the Board of Statutory Auditors was able to view and monitor the progress of the Audit plan for the year 2021.

The Head of Internal Audit attended all meetings of the Board of Statutory Auditors on a permanent basis, ensuring a continuous exchange of information on the activities in progress, the related results and the presence of any significant facts for the Company and its organisational structure.

The Board of Statutory Auditors has also reviewed and expressed, pursuant to the Corporate Governance Code, a favourable opinion on the 2022 Audit Plan, and has acknowledged the structure currently in place at the Company as to its adequacy to carry out the aforementioned 2022 Audit Plan in an orderly and appropriate manner.

The Board of Statutory Auditors also examined the Compliance Plan, which is consistent with that of previous years, and the adequacy of the Compliance department.

In the light of the new plans announced by the Company, the Board of Statutory Auditors intends to constantly monitor the adequacy of the Internal Audit and Compliance departments in relation to the new organisational structures.

10. Remuneration policies

The Board of Statutory Auditors examined the document containing the architecture of the incentive system (MBO) 2022, which envisages "entry gates" based on principles of fairness together with group economic indicators, specific department objectives (aligned with 2021) individual objectives and an extension of the ESG objectives (from 10% in 2021 to 22% in 2022), issuing, to the extent necessary and with regard to the remuneration of the Chief Executive Officer, a favourable opinion.

In addition, the Board of Statutory Auditors took note of the "Report on the remuneration policy and the compensation paidprepared pursuant to art. 123-ter of the CLF, containing the terms of the remuneration policy to be submitted to the Shareholders' Meeting called for 7 April 2022 and approved by the Board of Directors during the meeting on 2 March 2022, verifying that the procedure adopted was consistent with Company procedures and the relative regulations, issuing, as far as necessary, its favourable opinions to the Board of Directors.

11. Report on the frequency and number of meetings of the Bod, Executive Committee and Board of Statutory Auditors

In 2021, the Company's Board of Directors held 17 meetings, at which the Board of Statutory Auditors was always present, also in videoconference.

In FY 2021, the Control and Risk Committee met 22 times, the Nomination and Remuneration Committee met 21 times, the Related Parties Committee met 13 times, the Sustainability Committee met 4 times and the Committee for examining the "KKR" expression of interest met 5 times.

The Board of Statutory Auditors attended the meetings of all board committees, also by videoconference, supervising the relevant activities.

During 2021, there were 46 meetings of the Board of Statutory Auditors, 7 of which were held jointly with the Control and Risk Committee.

In 2022 and up to the date of approval of the Report 19 meetings have been held.

The majority of the members of the Board of Statutory Auditors attended (in audio conference) the Shareholders' Meeting held on 31 March 2021 in the manner permitted by the exceptional regulations set out in Decree Law no. 18 of 17 March 2020.

12. Remarks on compliance with the principles of correct administration

The Board of Statutory Auditors supervised compliance with the principles of correct administration, by attendance at the meetings of the Board of Directors and board committees, meetings with the executive responsible for preparing the corporate accounting documents, the Head of the Audit Department, the Group Compliance Officer, the Head of the IT & Security Compliance function and by means of interviews with the Company management and the acquisition of information. In particular, the Board acquired information about the TIM anti-bribery management system for the purposes of standard UNI ISO 37001, which reveals substantive compliance with the requirements indicated by the standard.

From the start of the new term of office, the Board of Statutory Auditors has supervised the proceedings followed in the deliberations of the Board of Directors and has ascertained that the management choices complied to the applicable rules (substantial lawfulness), adopted in the interests of the Company, compatible with the resources and the company's assets and adequately supported by information, analysis and audit processes, including with recourse, when deemed necessary, to advice from committees and external professionals.

In the course of its ordinary and six-monthly meetings with the Chairman of the Board of Directors and the Chief Executive Officer, the Board of Statutory Auditors presented its own assessments of the Company's governance system. In particular, it pointed out that, in relation to the activities carried out and the various feedback received, it believes that the structure-model of Governance adopted by the Company, together with some applications of the same, require further implementation-revision with regard to the Company's operational evolution so as to make it more suitable for controlling compliance with the principles of correct and efficient administration in operational practice.

The Board of Statutory Auditors has thus indicated, inter alia, the need to ensure the completeness and timely provision of the material supporting Board resolutions and the clarity of such material, via standardization of the documentation. This should allow Board members to immediately identify and classify the matters to be discussed, ensure that analysis of the various risks inherent to management choices are always present by constantly involving the Enterprise Risk Management (ERM) department, and organisation of the meetings to ensure an adequate level of concentration is maintained. It has also recommended monitoring of the information flows between the Company Bodies, between the members of the same and the control departments as well as the adoption of systems allowing continuous monitoring over time of the activities and projects subject to resolution by the Board of Directors.

13. Remarks on the adequacy of the organisational structure

The Board of Statutory Auditors has monitored the evolution of the TIM Group's organisational structure (also in accordance with golden power regulations, as per the provisions of the Decrees of the President of the Council of Ministers of 16 October 2017 and 2 November 2017), defined in accordance with, on the one hand, the organisational and managerial autonomy of the Parent Company and its subsidiaries and, on the other, the exercising of direction and coordination by the Company with regard to the direct or indirect subsidiaries.

More specifically, the Board of Statutory Auditors has monitored the principal changes in the organisational structure of the TIM Group through meetings held with the Head of the Human Resources & Organisational Development Department, the Heads of the main corporate structures and by acquiring the organisational communications which had produced an impact on the first and second tiers that report directly to TIM's executive directors or on the macro-organisation of the Group's companies.

The Board of Statutory Auditors notes that, at present, the Company's organisational structure is evolving both as a result of the replacement of some top management tiers and a structural review and reorganisation of the departments. In the light of the analyses carried out during the year, the Board of Statutory Auditors notes the need to adapt and strengthen some company departments so as to ensure they are fully adequate, with particular reference to the management control and procurement departments and the departments responsible for corporate sustainability and drafting of the Non-Financial Statement, in the light of the increasing obligations imposed by current legislation.

14. Remarks on the adequacy of the internal control system, in particular on the activity of the internal control managers, and highlighting of any corrective actions undertaken and/or to be undertaken

The Board of Statutory Auditors has acknowledged the overall assessment of the internal control and risk management system by the new Head of the Audit Department, the conclusions of which are set forth below: *" The results of the analysis can be summarised as follows*:

- *considering the current organisational structure and risk profile of the company, as a whole, TIM's Internal Control and Risk management System is designed and structured consistently with Corporate Governance Code recommendations, and is aligned with the main reference frameworks (i.e. «three line model» and «CoSO framework»), though displaying areas of improvement;*
- *the information reported in the information flows received by the second level control functions and by a selection of other players in the ICRMS of TIM, on which the Audit Department relied for the purposes of this report, do not highlight any critical aspects that could compromise the effectiveness of the system itself;*
- *the audit activities conducted on specific organisation areas during the year (based on the risk-based Audit Plan and risks pointed out by Top Management and Control Bodies) showed areas of improvement for which action plans have been defined by management. The implementation rate for the action plans formulated based on audit activities in the period 2019-2021 is 90% to date and is monitored continuously and TIM Control Bodies are kept informed in the periodical Audit Department reports.*

In the light of the above, the necessary areas of improvement identified are not such as to compromise the overall adequacy of TIM's Internal Control and Risk Management System."

Although the Board of Statutory Auditors agrees with the analyses carried out by the department, it believes that TIM's Internal Control and Risk Management System may currently be considered "*mostly satisfactory*", and therefore that it has achieved a state of adequacy, although this should be completed by implementing the improvement measures suggested by the Audit Department and the Board itself. This is the result of the findings of the Board of Statutory Auditors in its constant monitoring of the System of Internal Controls, analysing as the occasion arises the results of the Audit Reports, Compliance monitoring, as well as the results of its own specific in-depth analyses, including, in the past year, the operations described in Paragraph 2 above, which revealed, among other things, anomalies and shortcomings in terms of the correct flow of information within the company and with the control departments.

The Board of Statutory Auditors notes, however, that following the reports made to the Company's bodies and offices, some corrective action was taken during the FY 2021, in particular in the reporting to the Board of Directors and to the Board Committees and in a more integrated involvement of the ERM and ORM Departments.

For the purposes of the opinion on the internal control system expressed above, the Board of Statutory Auditors has also monitored the work carried out by the main players, also with reference to specific aspects, such as special powers ("golden power"). In particular, insofar as coming under its purview, the Board of Statutory Auditors also monitored the improvements made and action taken to mitigate risks, in some cases requesting specific, additional strengthening of the control measures.

It is also noted that the Company has voluntarily adhered to the Cooperative Compliance regime and that the Board has acquired the draft Report prepared by the Head of the Reporting and Fiscal Monitoring Department, in accordance with art. 4, subsection 2 of Italian Legislative Decree no. 128/2015, the purpose of which was to illustrate to the Board of Directors, as part of the Tax Risk Management and Control System (the so-called

Tax Control Framework) adopted by the Company, the audits carried out in 2021, the findings and remediation measures put in place, and the activities planned for 2022. Said draft report will be finalized and subsequently presented to the Board of Directors once the meeting between the Company and the Office of Cooperative Compliance for formalization of the Notice of Closure of the Proceedings pursuant to point 6.1 of the Provision of the Director of the Italian Revenues Agency Prot. no. 101573 of 26/05/2017, has been held.

The Board of Statutory Auditors has exchanged information with the corresponding control bodies of the major Italian subsidiary companies. It also met with the Audit Committee of Telecom Italia Finance S.A..

The internal control and risk management system also includes the Organisational Model 231, designed to prevent the commission of offences that could result in liability for the Company, pursuant to Legislative Decree No. 231/2001. The Organisational Model 231 has been adopted by domestic subsidiaries of the Group as well as by TIM.

The Board of Statutory Auditors acquired information from the Supervisory Body, which comprises a member of the Board, at specific meetings as well as from an examination of the six-monthly reports prepared by the latter, which indicate an organisational structure that could be improved in certain areas such as procurement.

The latest version of the Organisational Model 231 was approved on 10 November 2020 and transposes the regulatory changes introduced by Legislative Decree No. 75 of 14 July 2020 (implementing the so-called PIF Directive), which led to an expansion of the predicate offences.

With reference to the GDPR system, the Board of Statutory Auditors notes that: (i) in 2021 Tim changed its organisational structure, (ii) a new DPO was appointed, (iii) the DPO's annual report - incorporated in the SCIGR Report and discussed during the Control and Risk Committee meeting of 25/2/2022 - indicates the substantive maintenance and effectiveness of the specific organisational model.

With reference to the cases of data breach detected, which occurred in July and August 2021 and were the subject of notification to the Data Protection Authority, the Board of Statutory Auditors notes and acknowledges that as at the date of this report no sanction has been issued by the former.

In 2021 TIM also launched a "Technology plan" involving the launch of a major IT transformation project, the accounting effects of which are illustrated in the Director's Report on operations and which led to the deactivation of 102 applications and the activation of 33 new applications. At the same time, it has modified the organisational structure of the IT department, which is now part of the compliance area.

In 2021, the Company continued the training programme for its departments on the protection of personal data and the general principles of the GDPR such as data subject rights, data transfer, data breach, governance and individual employee accountability.

The TIM Group has adopted an Enterprise Risk Management Model (ERM) which enables risks to be identified and managed in a homogenous way within the Group companies, highlighting potential synergies between the players involved in the assessment of the internal control and risk management system. The process is managed by the Risk Management Steering Committee, which provides governance of the Group's risk management, aimed at containing the level of exposure within acceptable limits and guaranteeing the operational continuity of the business by monitoring the effectiveness of the countermeasures adopted. The Board of Statutory Auditors has acknowledged that, at its meeting on 2 March 2022, the Board of Directors defined the risk that was acceptable for the Group (Risk Appetite) and the acceptable levels of deviation (Risk Tolerance) under the scope of the new Industrial Plan.

In 2021 the Compliance organisational model was subject to changes aimed at simplifying the information flows towards the Control Bodies; in this perspective the IT & Security Compliance Policy & Design and IT & Security Compliance Assurance departments were merged within the Compliance Department.

Also in 2021, the Board of Statutory Auditors took note of the activities carried out by Compliance, which focused on the following areas: Definition of rules, processes and controls, Communication and training, Monitoring.

These compliance audits, as indicated in the SCIGR report, led to the conclusion that with reference to the specific operating contexts analysed and the initiatives undertaken by the Compliance Department, no elements emerged in 2021 that would lead to non-compliance risk profiles exceeding levels that would affect the adequacy of the internal control system.

Nonetheless, areas for improvement were identified in relation to the Anti-Corruption Management System, Financial Reporting and Gap Analysis 231 both in Tim and its subsidiaries.

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In compliance with Italian Legislative Decree no. 254/2016 (hereinafter the "Decree"), the Company has been required to disclose non-financial information since FY 2018.

The TIM Group NFS contains a description of topics regarding: the corporate management model, corporate governance, stakeholder engagement, the materiality matrix and risk management, the results achieved by the Company on topics relevant to the environment, the value chain and human rights.

On 16 March 2022, the independent auditors issued a report certifying that the information provided in the NFS complies with the requirements of the Decree and the reporting standards used, which reads as *follows "based on the work carried out, no elements have come to our attention that would lead us to believe that the Tim Group's NFS for the financial year ending 31 December 2021 has not been prepared, in all significant aspects, in accordance with the requirements of Articles 3 and 4 of the Decree and the GRI Standards.*

Our conclusions on Tim Group's NFS do not extend to the information contained in the "European Taxonomy" paragraph thereof, which is required by Article 8 of European Regulation 2020/852.".

The Board of Statutory Auditors has obtained regular updates on the conduct of activities prior to preparing the NFS and has monitored observance of the provisions pursuant to the above Decree under the scope of the duties assigned it by the system and, in particular, on the adequacy of the procedures, processes and departments overseeing the production, reporting, measuring and representation of the results and of information of this nature.

As part of its duty to supervise compliance with the law and the Bylaws, the Board notes that the Company, in its NFS, has complied with the provisions of Regulation (EU) 2020/852 of 18 June 2020 on the establishment of a framework to encourage sustainable investments.

Said Regulation requires that, as of 1 January 2022 (NFS referring to FY 2021), information be provided only on climate change mitigation and adaptation.

15. Remarks on the adequacy of the administrative and accounting system and its ability to fairly represent operations

For the purpose of supervising financial reporting processes, the Board of Statutory Auditors (in addition to the above-mentioned in-depth analyses and discussions with the Auditor both with regard to the adequacy of the internal control system and the procedures underlying the preparation of accounting data, for which it did not receive any reports of critical aspects) has periodically met the Executive responsible for measuring accounting and corporate data and drafting the related accounting documents, together with the accounting and risk department. To this end, the Board of Statutory Auditors collected documents and information, including through interviews with the various company control, compliance, legal and commercial departments, as well as with the Supervisory Board.

In order to guarantee compliance with Italian laws, TIM operates a structured and documented model of detection and monitoring of risks connected to financial reporting, which refers to the 2013 CoSo framework. This model, managed with the help of a specific piece of software, regards the internal controls associated with the risks identified on the financial reporting and the consequent assessment activities, with precise attributions of responsibility, in compliance with the principle of accountability. The accounting structure and the related procedures have been defined and organised under the responsibility of the Executive responsible together with the pro tempore Chief Executive Officer, who have certified their adequacy and effectiveness.

The Board also acknowledged the activities carried out pursuant to Law no. 262/05 concerning the Company's 2021 individual and consolidated financial statements, which were submitted to the Board of Directors on 2 March 2021. Consequently, with regard to the administrative-accounting system of the subsidiaries, pursuant to art. 15, subsection 1, letter c, ii) of the Market Regulations (Conditions for the listing of shares of controlling companies and of companies registered in and regulated by the laws of States that are not members of the European Union), the Board of Statutory Auditors has not ascertained facts and circumstances indicating that it is not adequate to ensure that the data on equity and economic data required for the preparation of the consolidated financial statements regularly reaches the management and auditor of the controlling company.

In the course of periodic meetings, the Executive responsible did not point out any shortcomings in the operational and control processes that could affect the judgement of the correctness of company information.

In the course of its supervisory activities, the Board of Statutory Auditors reported certain shortcomings regarding both the organisational structure and the correct representation of some operations, relating mainly to the contracts referred to in paragraph 2 above, which were brought to the attention of the Board of Directors, the control and compliance departments and the Auditor for the necessary measures both in terms of corrective action and in-depth investigation. In this regard, the Board of Directors, at its meeting on 17 December 2021, decided to launch a specific investigation by external consultants, aimed at analysing the reports received in depth.

The Board of Statutory Auditors also monitored the financial reporting process.

With reference to the Company's annual financial statements and consolidated accounts for 2021, the Board of Statutory Auditors acknowledged the statements issued by the Chief Executive Officer and the Executive responsible for preparing the corporate accounting documents of TIM S.p.A. concerning the adequacy in relation to the characteristics of the company and the actual application during 2021 of the administrative and accounting procedures for the preparation of the financial statements and the consolidated financial statements.

The Board of Statutory Auditors notes that, with reference to the goodwill impairment test, this is applied in a consolidated and structured manner, coordinated by the Chief Financial Officer, with the intervention of independent external experts of acknowledged professional expertise. The impairment procedure is revised once a year and the process for *impairment testing* is analysed and discussed in special meetings involving the Control and Risk Committee and Board of Statutory Auditors, that precede the Board of Directors meetings to approve the financial reports to which the *impairment* test must be applied.

The Board of Statutory Auditors has checked that the impairment test procedure applied to the 2021 financial statements was conducted consistently with the procedure approved by the Board of Directors on 21 January 2022 and with the applicable IFRS standards, and structured with various reference documents aimed at verifying the final results.

After the impairment test process, the goodwill of the Domestic CGU was 4,120 million euros less at 31/12/2021, due to the impairment carried out.

For further details, reference is made to the explanations given in the "Goodwill" Note to the consolidated financial statements as of 31 December 2021 of the TIM Group.

Following the events occurring after the date of approval of the 2021 financial statements by the Board of Directors due to the war between Ukraine and Russia, the Board of Statutory Auditors carried out some in-depth studies with both the Company departments and the Auditor regarding the possible effects on interest rates, exchange rates, energy costs, and more generally on the economy at large.

16. Remarks on the adequacy of the instructions imparted by the company to its subsidiaries pursuant to article 114, subsection 2 of legislative decree no. 58/1998

Pursuant to art. 2403 of the Italian Civil Code and art 149 of the CLF, the Board of Statutory Auditors believes that the instructions imparted by TIM to its subsidiaries, pursuant to art. 114, subsection 2 of the CLF, are adequate to comply with the disclosure obligations established by the law

- In this respect it should be noted that the Company regulates the flow of information it receives from its subsidiary companies on transactions of particular impact, with specific procedures
- exchanged periodic information with the Boards of Statutory Auditors of the direct subsidiaries and verified - pursuant to art. 15 of the Consob Market Regulations adopted by resolution no. 20249 of 28 December 2018 (the "Consob Market Regulations") - that the corporate organisation and procedures adopted allow Tim S.p.A. to ascertain that its subsidiaries of significant importance incorporated and governed by the law of non-EU countries have an administrative and accounting system suitable for regularly providing the Company's management and auditor with data on equity and the financial data necessary for the preparation of the consolidated financial statements. As at 31 December 2021, the subsidiaries of significant importance incorporated and governed by the law of non-EU countries pursuant to article 15 of Consob's Market Regulations are: TIM S.A. (telecommunications services - Brazil).

17. Relations with Supervisory Authorities

In 2021 the Board of Statutory Auditors sent a communication to Consob pursuant to art. 149, subsection 3 of the CLF regarding certain organisational profiles observed in the administration and control area during the supervisory activities carried out on the contracts referred to in paragraph 2 above.

In addition, in 2022 the Board of Statutory Auditors responded to a request sent by Consob, pursuant to art. 115 of the CLF, inviting the Board of Statutory Auditors to provide additional information on the content of the aforementioned communication pursuant to art. 149, subsection 3, of the CLF.

It should be noted, moreover, that the Board of Statutory Auditors was promptly informed by the Company with regard to the requests for information, data and documents sent by Consob, pursuant to art. 115 of the CLF, during the year 2021 and that the requests received were promptly answered within the terms set out and/or agreed.

18. Remarks about any relevant aspects that emerged during the meetings held with the auditors pursuant to article 150, subsection 2 of legislative decree no. 58/1998

In 2021, the Board of Statutory Auditors held regular meetings with the external auditor (EY) during which data and significant information was exchanged for the performance of their respective duties.

The Board of Statutory Auditors has analysed the work carried out by the independent auditor, with specific reference to the approach and auditing strategy for FY 2021 and the definition of the audit plan, the scope of work, the materiality and the significant risks for 2021. The key audit matters and the related corporate risks were discussed, and the activities planned by the independent auditor were deemed adequate.

The Board of Statutory Auditors has ascertained, from information obtained from Independent Auditor EY and from the management of the Company, that the IAS/IFRS principles, and the other legal and regulatory provisions that apply to the preparation and presentation of the separate financial statements, the consolidated financial statements and the accompanying report on operations, are complied with.

The exchange of information with the independent auditors covered all the main business processes and their recognition and representation in the accounts. In this perspective, particular attention was paid to the critical aspects emerging from the examination of the contracts indicated in paragraph 2, the accounting of the contractual obligations following the incorporation of FiberCop SpA, the process of measuring revenues related to contracts that provide for separate performance obligations including activation fees, certain commercial agreements concerning the sale of goods with deferred delivery and the system of monitoring and matching the physical and accounting consistency of some categories of fixed assets.

In this context, the Independent Auditor - with whom periodic meetings were held also regarding the provisions of art. 150 of the CLF in order to exchange mutual information - did not report to the Board of Statutory Auditors any reprehensible act or event or any irregularity requiring the formulation of specific notifications pursuant to art. 155 of the CLF.

In compliance with that prescribed by art. 19 of Italian Legislative Decree no. 39/2010, the Board of Statutory Auditors has verified and monitored the independence of the external auditor, particularly as regards the provision of services supplied to the Company, other than auditing.

Taking into account the EY declaration of independence (contained in the Additional Report for the Committee for Internal Control and Audit) and the additional appointments conferred by TIM and the Group companies on EY and the companies belonging to its network, the Board of Statutory Auditors believes that conditions are met for attesting to the independence of the independent audit firm EY.

19. Indication of the adherence or otherwise of the company to the corporate governance code of the committee for the corporate governance of listed companies

The Company's Board of Statutory Auditors performs its functions within a governance framework that envisages information flows within the company, the architecture of which is constantly evolving in relation to Tim's organisational changes and which are therefore currently subject to observation, assessment and monitoring by Internal Audit.

The Board of Statutory Auditors has taken note of the information provided in the Report on Corporate Governance and Share Ownership approved by the Board of Directors at its meeting on 2 March 2022.

The Company adheres to the new Corporate Governance Code and adhered to the previous Corporate Governance Code.

The Board of Statutory Auditors took part in the meetings of the Board of Directors and the Board committees and monitored the procedures for the practical implementation of Tim's corporate governance rules, contained in the Corporate Governance Code. In this perspective, the Board of Statutory Auditors has also taken into account the recommendations of the Corporate Governance Code, intervening where appropriate. In particular, the Board of Statutory Auditors, during the meeting held in the second half of 2021 with the Chairman of the Board of Directors and the Chief Executive Officer - a meeting that it intends to hold on a regular basis in the future - pointed out to them the need to: assure that members of the company bodies are provided with the pre-meeting information sufficiently in advance; are provided with self-explanatory material on the topics to be examined and discussed, organised so as to be functional to the objectives; organise board meetings in a manner functional to the relevance of the single items to be examined; direct individual contributions in an orderly manner; develop a model that facilitates Directors' contributions and discussions aimed at challenging the proposals of the executive directors, all these aspects showing margins for improvement.

At the same time, the Board of Statutory Auditors acknowledges that TIM has adopted the criteria of the Corporate Governance Code for the classification of Directors as independent. Based on the elements made available by the interested parties pursuant to the Code and as per Consob Issuers' Regulations, or in any case available to the Company, the assessment of the requirements was carried out during the first Board meeting following the appointment, and subsequently, most recently on 14 February 2022. Of the current 15 Directors in office, 10 meet the independence requirements: Directors De Meo, Bonomo, Moretti, Romagnoli, Falcone, Sapienza, Ferro Luzzi, Camagni, Carli and Boccardelli.

On 16 February 2022, the Board of Statutory Auditors checked that the criteria and ascertainment procedures adopted by the Board of Directors to assess the independence of its members were correctly applied, deeming that the procedure had been implemented correctly.

The point of reference and coordination for the issues and contributions of the independent Directors and the non-executive Directors in general is the Lead Independent Director, a role held by Paola Sapienza.

The Lead Independent Director is granted the right to use corporate structures to perform the tasks entrusted to him and to convene special meetings of the Independent Directors to discuss issues regarding the functioning of the Board of Directors or the management of the business.

On 16 February 2022, the Board of Statutory Auditors also checked that the requirements of integrity, professionalism and independence were met by each Auditor, in accordance with art. 148, subsection 3 of the CLF and the Corporate Governance Code. At the same time, it takes note of the adequacy of its composition, also given the diversity in terms of skills, competence and experience as well as gender, which ensured an adequate functioning of the body.

See TIM’s 2021 Report on the corporate governance and share ownership for further information on the Corporate Governance of the Company, which the Board of Statutory Auditors evaluates positively.

20. Conclusive assessments of the supervisory activity carried out and of any omissions, misconduct or irregularities noted during the course of this activity

The supervisory and control activities carried out by the Board of Statutory Auditors, with the exception of the matters described in the preceding sections of this report, did not bring to light any reprehensible facts, omissions or irregularities, nor did the Board of Statutory Auditors or the Supervisory Board receive any indications of reprehensible facts or irregularities to be mentioned in the Report to the Shareholders' Meeting.

21. Further activities of the Board of Statutory Auditors

In carrying out its duties, the Board of Statutory Auditors has monitored, as required by Article 149 of the CLF:

- compliance with the law and the Articles of association;
- compliance with the principles of correct administration;
- the procedures for the practical implementation of the corporate governance rules laid down in the codes of conduct with which the Company, by means of public disclosures, has declared that it complies.

It should also be noted that the Directors' Report on operations includes a paragraph describing the main features of the existing internal control and risk management system in relation to the financial reporting process, including consolidated reporting.

The Board of Statutory Auditors takes note that:

- the Directors' Report on operations complies with current legislation, is consistent with the resolutions passed by the Board of Directors and the results of the financial statements, and provides adequate information on the Company's operations during the year and on intra-group transactions. The section containing information on Related Party transactions has been included, in compliance with IFRS standards, in the notes to the financial statements;
- the Notes comply with current legislation, indicating the criteria applied in valuing items in the financial statements and making adjustments, and the Company's separate and consolidated financial statements have been prepared in accordance with the structure and format required by current legislation. In application of Consob regulations, the financial statements expressly indicate the effects of related party transactions on equity and the financial position, the income statement and cash flows;
- the Boards of Directors of the main subsidiaries include directors and/or managers of the Parent Company who guarantee coordinated management and an adequate flow of information, also supported by suitable accounting information.

Furthermore, it should be noted that the Board of Statutory Auditors:

- obtained from the Directors, at least on a quarterly basis, information on the activities carried out and on the most significant strategic, economic, financial and equity operations undertaken by the Company. The Board of Statutory Auditors - without prejudice to the content of paragraph 2 concerning some company transactions approved and/or carried out in 2021 - based on the available information, can reasonably assure that the additional transactions approved and carried out in the period under review comply with the law and the Bylaws and are not clearly imprudent, or risky, or in conflict of interest, or in contrast with the resolutions passed by the Shareholders' Meeting, or such as to compromise the integrity of the corporate assets;
- received from the Supervisory Body, which the Standing Auditor Anna Doro is a member of, information on the results of its control activities, from which it emerges that no anomalies or reprehensible events violating the Organisational Model 231/2001 were found;

- held periodic meetings with representatives of the Independent Auditors in order to exchange data and information relevant to the performance of their duties, as required by art. 150, subsection 3 of the CLF. In this regard, it should be noted that no significant data or information emerged that should be reported herein;
- obtained information from the corresponding bodies of the main subsidiaries with regard to management and control systems and the general performance of company activities (pursuant to subsections 1 and 2 of art. 151 of the CLF).

22. Report of any proposals to be brought to the attention of the shareholders' meeting pursuant to article 153, subsection 2 of legislative decree no. 58/98

Having acknowledged the Company's 2021 financial statements, having taken into account all of the above, having considered the content of the reports drawn up by the Auditor, having acknowledged the certifications issued jointly by the Chief Executive Officer and Executive responsible for preparing the corporate accounting documents, the Board of Statutory Auditors, within its remit, finds no reasons to object to the proposal to approve the Company's separate financial statements as at 31 December 2021 and the proposals formulated by the Board of Directors, as set out in the Directors' Report on operations and available at the Internet address: www.gruppotim.it -

The Board of Statutory Auditors has acknowledged that the Shareholders' Meeting has been convened, in connection with the COVID-19 epidemiological emergency, with procedures consistent with the exceptional rules contained in Decree Law no. 18 of 17 March 2020.

Milan, 16 March 2022

For the Board of Statutory Auditors

The Chairman

Francesco Fallacara

MOTIONS FOR RESOLUTIONS

Shareholders' meeting of TIM S.p.A.

April, 7 2022: shareholders' meeting of TIM S.p.A. – single call

Medium

- Financial statements as at 31 December 2021 – Approval of the financial statements documentation – Coverage of the operating loss
- Report on the remuneration policy and compensation paid - Approval of the first section (remuneration policy) - Non-binding vote on the second section (2021 final balance)
- Determinations following the termination of office of a Director - Appointment of a Director
- 2022-2024 Stock Options Plan - Granting of options to employees, related and consequent resolutions
- 2022-2024 Stock Option Plan - Issue of shares to service the initiative, amendment to Article 5 of the Company Bylaws, related and consequent resolutions
- Use of reserves to cover the loss for the year - permanent reduction excluding the obligation of subsequent reinstatement

Financial statements as at 31 December 2021 – Approval of the financial statements documentation – Coverage of the operating loss

Dear Shareholders,

The 2021 draft financial statements submitted for the approval of the Shareholders' Meeting show a net loss of 8,314,007,998 euros. The reasons for this result are described in the report on operations, to which reference should be made.

Upon approval of the financial statements, the proposal is for the loss for the year to be covered by full use of retained earnings (amounting to 7,357,247,766 euros) and withdrawals from reserves for the amount of 956,760,232 euros, as described below.

In view of the above, the Board of Directors submits for your approval the following:

The Shareholders' Meeting of TIM S.p.A.,

(2) having examined the annual financial report of TIM S.p.A.;

(3) having taken note of the reports by the Board of Statutory Auditors and the independent auditors EY S.p.A.;

resolved

- to approve the 2021 financial statements of TIM S.p.A...
- to cover the loss for the year of TIM S.p.A. (equal to 8,314,007,998 euros)
  - for 7,357,247,766 euros by withdrawal from retained earnings
  - for 956,760,232 euros through use of the Merger Surplus Reserve.

Report on the remuneration policy and compensation paid - Approval of the first section (remuneration policy) - Non-binding vote on the second section (2021 final balance)

Dear Shareholders,

the report on the remuneration policy for financial year 2022 and the remuneration paid in financial year 2021 was prepared on the basis of the applicable regulatory framework.

This document is divided into two sections:

- the first illustrates the Company's policy on the remuneration of Directors, Statutory Auditors and Key Managers with Strategic Responsibilities, and is subject to a binding resolution of the Shareholders' Meeting, with the possibility of derogation in the event of exceptional circumstances, within the limits and under the procedural conditions specified in the same document;
- the second presents the items that make up the remuneration of the persons mentioned above, with an analytical illustration of the 2021 remuneration; indicates how the Company considered the Shareholders'

vote of 31 March 2021 and is subject to a non-binding resolution of the Shareholders' Meeting in favour or against.

All that said, you are called upon to express your views separately on the first and second sections of the report, as described above. For this purpose, the Board of Directors submits the following proposals for your approval:

Proposal 1: approval of the first section of the report on the remuneration policy and compensation paid

The Shareholders' Meeting of TIM S.p.A., having regard to applicable regulations,

resolved

the approval of the first section of the report on the remuneration policy and compensation paid by the Company.

Proposal 2: non-binding vote on the second section of the report on the remuneration policy and compensation paid

The Shareholders' Meeting of TIM S.p.A., having regard to applicable regulations,

resolved

in favour of the second section of the report on the remuneration policy and compensation paid by the Company.

Determinations following the termination of office of a Director - Appointment of a Director

Dear Shareholders,

Following the resignation of Luigi Gubitosi on 17 December 2021, the Board of Directors, at its meeting on 21 January 2022, co-opted Pietro Labriola, who will remain in office as a Director until the next Shareholders' Meeting.

Since the slate voting mechanism does not apply to this case, as the Bylaws only require it for the renewal of the entire board, we propose that you appoint the aforementioned Pietro Labriola (whose the curriculum vitae is available on the Company's website) as a Director of TIM for the remaining duration of the term of office of the serving Board of Directors and therefore until approval of the financial statements for the year ending on 31 December 2023.

In view of the above, the Board of Directors submits for your approval the followingl'Assemblea di TIM S.p.A.,

The Shareholders' Meeting of TIM S.p.A.,

- given that Luigi Gubitosi's has ceased to hold office as a Director (and the removal from office of Pietro Labriola, who had already been co-opted by the Board of Directors to replace Luigi Gubitosi);
- considering that the term of office of the current Board of Directors will expire with approval of the financial statements as at 31 December 2023 (as per the Shareholders' Meeting resolution of 31 March 2021),

resolved

to appoint Pietro Labriola as Director of the Company expiring together with the Directors in office and therefore until the approval of the financial statements at 31 December 2023.

2022-2024 Stock Options Plan - Granting of options to employees, related and consequent resolutions

Dear Shareholders,

Pursuant to art. 114-bis of Legislative Decree 58 of 24 February 1998 (the "CLF"), the Board of Directors submits for your approval a new remuneration tool for management, introduced into the company remuneration policy as illustrated in the first section of the corresponding report, which is also submitted to the Shareholders' Meeting for review.

The 2022-24 stock options plan (the "Plan") is for a part of the Group's management (including the CEO and key managers of TIM), as identified, at its discretion, by the Board of Directors of TIM S.p.A. (the "Company") in due course. The aim of the initiative is to focus management, with organisational positions that are decisive for the company's business or in any case deemed worthy of incentive and retention on the basis of management considerations, on increasing the value of the share by assigning options (the "Options") to subscribe to or purchase TIM ordinary shares at a price of 0.424 euros per share (the "Strike Price").

While you are invited to refer for further details to the information document drawn up according to the chart of Issuer Regulations (adopted by Consob with resolution no. 11971 of 14 May 1999 and as subsequently amended), the essential terms and conditions of the Plan are summarized below, whose regulations will be defined by the Board of Directors, upon the proposal of the Nomination and Remuneration Committee, in compliance with the terms described in the information document (the "Plan Regulations").

The Plan will concern a maximum of 257,763,000 Options, free of charge and non-transferable, which will grant beneficiaries, at the end of the vesting period, the right to subscribe or purchase an equal number of ordinary TIM shares at the Strike Price of 0.424 euros, an amount corresponding to the weighted average of the official listing price of the Company's ordinary and savings shares on the electronic stock market organised and managed by Borsa Italiana S.p.A. in the quarter December 2021-February 2022. The number of exercisable

Options will depend on achievement of the performance parameters, identified in (i) the cumulative reported EBITDA-CAPEX indicator over the period 2022-2024 (weight: 70%); (ii) in the percentage of women in positions of responsibility at the end of 2024 (weight: 15%); (iii) in the ratio between renewable electricity and electricity consumed in the 2024 financial year (weight: 15%), resulting from the targets included in the TIM 2022-2024 business plan. If the minimum threshold of each indicator should not be reached, the Options linked to it will lapse; where this threshold is exceeded, the number of exercisable Options will vary according to the level of performance, up to a maximum of 110% of the Options corresponding to the target.

The Board of Directors will allocate 24,000,000 Options (target allocation) to the CEO and will include, at its discretion, the remaining beneficiaries in three different incentive tiers, related to the contribution and impact of the role held on the company's strategic objectives. Each tier corresponds to a different number of Target Options:

- 6,250,000 Options for first-tier beneficiaries;
- 3,125,000 Options for second-tier beneficiaries;
- 520,000 Options for third-tier beneficiaries,

subject to ratione temporis reproportioning in the event of assignment after 31 August 2022 and subject to an absolute benefit limit (in terms of potential capital gain), with a possible reduction in the number of Options, defined when ascertaining the performance level achieved.

The Options may be exercised for two years from the date on which their maturity is ascertained (by the Board of Directors when the 2024 financial statements are approved), without prejudice to the suspension periods established in Plan Regulations; at the end of the exercise period, unused subscription/purchase rights shall lapse without compensation. The Options shall also lapse without any compensation upon termination of the grantee's employment with TIM, its subsidiaries and/or Successor Companies (meaning any company which is the beneficiary of a demerger of TIM or the transferee of a TIM business unit and its subsidiaries) during the vesting period (i.e. until 31 December 2024). Exceptions are cases of premature death of the beneficiary (with the Options exercisable by the heirs) or interruption of the relationship due to (i) retirement; (ii) termination by mutual consent; (iii) total and permanent disability, provided that the interrupting event occurs after 1 January of the year following the assignment. In these cases, the Options will mature (without acceleration of vesting) in a number reduced in proportion to the period elapsed since the allocation date.

In the event of extraordinary transactions involving the Company, as well as extraordinary situations not envisaged in the Plan Regulations, the Board of Directors shall have the power to make the amendments and additions to the Plan it deems necessary and/or appropriate to keep the essential contents of the Plan (in substantial and economic terms) as unchanged as possible, in compliance with the objectives and purposes pursued by the Plan.

The Plan does not benefit from the support of the special Fund to provide incentives for the employees' shareholdings in the enterprises.

Following the exercising of the vested Options, upon payment of the Strike Price (for which no funding or other advantages are envisaged by the Company) beneficiaries will receive ordinary TIM shares with regular dividend entitlement, free of any restrictions on availability. To service the Plan, a maximum of 257,763,000 newly issued ordinary shares will be issued, for a maximum dilutive effect of 1.19% with respect to total capital and 1.65% with respect to solely the ordinary shares as at 31 December 2021. Where judged appropriate by the Board of Directors, the Options may be fulfilled through the use of treasury shares in the Company's portfolio. The Board of Directors therefore also asks the Shareholders’ Meeting for authorisation to make the aforementioned treasury shares available.

The Board of Directors invites you to refer to the information document for an analytical explanation of the initiative, and submits for your approval the following proposal

The Shareholders’ Meeting of TIM S.p.A.,

- having examined the explanatory report of the Board of Directors,
- having examined the information document made available to the public in accordance with the applicable regulations,

resolved

- to approve the 2022-2024 Stock Options Plan, under the general terms described above and detailed in the information document published in accordance with the applicable regulations;
- to grant the Board of Directors all the powers necessary or appropriate (i) to define Plan regulations and any other documentation accompanying the same, (ii) to implement the Plan itself, proceeding with any activity needed to comply with the regulations in force at the time, (iii) to make any amendments and/or additions needed to the Plan, its regulations and any other documentation, with authorisation to carry out acts to dispose of the ordinary treasury shares held from time to time in the Company portfolio.

2022-2024 Stock Option Plan - Issue of shares to service the initiative, amendment to Article 5 of the Company Bylaws, related and consequent resolutions

Dear Shareholders,

the 2022-2024 Stock Options Plan (the "Plan") was submitted to the Shareholders' Meeting in the ordinary session; for its characteristics, please refer to the information document.

To service the Plan, it is proposed to issue a maximum number of 257,763,000 new ordinary shares without nominal value, regular entitlement, with the exclusion of option rights pursuant to Article 2441, paragraph 8, of the Italian Civil Code, to be reserved for employees of the Company or of companies controlled by it, who are beneficiaries of the Plan.

The issue of the new shares, which will take place during the exercise period (as defined in the information document) in relation to the number of options actually exercised by the individual beneficiaries, may involve a capital increase for a maximum amount of 109,291,512 euros.

In the event of the issue of new shares in the maximum number stated above, the dilution effect on TIM's share capital as at 31 December 2021 would be 1.19% and 1.65% with respect to the ordinary share component only.

It should be noted that a shareholder who does not participate in the approval of the share issue resolution does not have the right of withdrawal. This resolution entails the introduction of a specific paragraph in Article 5 of the Bylaws, following the current text, which remains unchanged.

In view of the above, the Board of Directors submits for your approval the following:

The Shareholders' Meeting of TIM S.p.A.,

- given the approval of the 2022-2024 Stock Options Plan;
- having examined the Board of Directors' explanatory report and the information document relating to the 2022-2024 Stock Options Plan;
- given the statement by the Board of Statutory Auditors that the current share capital has been fully paid in;

resolved

- to issue a maximum of 257,763,000 ordinary shares without nominal value by the deadline of 30 June 2025, in several tranches with the same characteristics as the ordinary shares in circulation at the time, regular dividend rights, with the exclusion of option rights pursuant to Article 2441, subsection 8, of the Italian Civil Code, at the subscription price of 0.424 euros per share - fully allocated to share capital and thus to approve the capital increase, in tranches, for a maximum amount of 109,291,512 euros - to be reserved for Company employees or those of its subsidiaries who are beneficiaries of the 2022-2024 Stock Options Plan, under the terms, conditions and procedures set forth in its regulations;
- to grant the Board of Directors all the powers necessary or appropriate to execute the individual tranches of the share issue referred to in the preceding point and therefore, up to a maximum amount of 109,291,512 euros, subject to the terms, conditions and procedures laid down in the regulations;
- to amend Article 5 of the Bylaws by introducing the following paragraph to follow the current text:

  "Once the 2022-2024 Stock Options Plan had been approved and in service thereof, the Shareholders' Meeting of 7 April 2022 resolved to issue a maximum of 257,763,000 new ordinary shares without nominal value in one or more tranches, by the deadline of 30 June 2025; at a unit price of 0.424 euros per share, fully allocated to share capital (and so by means of a capital increase, in tranches, for a maximum amount of 109,291,512 euros), with the same characteristics as the ordinary shares in circulation at the time, regular dividend rights, with the exclusion of option rights pursuant to Article 2441, subsection 8, of the Italian Civil Code, to be reserved for the beneficiaries of the 2022-2024 Stock Options Plan, in accordance with the terms, conditions and procedures provided for in its regulations";
- to confer on the Board of Directors – and on behalf thereof on the pro tempore legal representatives of the Company, jointly or severally – all the powers necessary to:
  - to make the changes on a case by case basis to article 5 of the company Bylaws that are consequent on the execution and completion of the share issue as approved above, and to that end to fulfil all the obligations and publish all information required by the regulations;
  - to complete all the necessary formalities for the adopted resolutions to be entered in the Business Register, accepting and introducing into said resolutions the amendments, additions or deletions of a non-substantial nature that might be requested by the competent authorities, as well as all the powers necessary for legal and regulatory compliance deriving from the resolutions adopted.

Use of reserves to cover the loss for the year - permanent reduction excluding the obligation of subsequent reinstatement

Dear Shareholders,

the Ordinary Shareholders' Meeting was asked to cover the loss for year 2021 by using retained earnings and the merger surplus reserve for a total of 8,314,007,998 euros, equity items already subject to a tax suspension restriction, as a result of the tax realignment of the goodwill value pursuant to Article 110, subsection 8 of Decree-Law No. 104/2020, recognised in the financial statements as at 31 December 2020.

For all intents and purposes, the proposal is that the reduction to the reserves by withdrawal of the above mentioned amount should be regarded as final, excluding any obligation for subsequent replenishment from future profits. On this point, the Shareholders are called on to resolve in an extraordinary session, pursuant to Article 13, subsection 2 of Law No. 342 of 21 November 2000, to the extent applicable.

In view of the above, the Board of Directors submits for your approval the following:

The Shareholders' Meeting of TIM S.p.A.,

- having regard to the resolution to cover the loss for financial year 2021 through the use of retained earnings and other tax-suspension reserves for a total of 8,314,007,998 euros;

resolved

the permanent reduction of the corresponding equity items, excluding their subsequent reconstitution.

GLOSSARY

The following explanations are not intended as strict definitions, but to assist readers to understand certain terms as used in this Annual Report.

2G (second-generation Mobile System)

Second-generation mobile systems using digital encoding and including GSM, D-AMPS (TDMA) and CDMA. 2G networks are in current use all over Europe and other parts of the world. These systems support voice and limited data communications, as well as auxiliary services such as fax and SMS.

3G (third-generation Mobile System)

Third-generation wireless system, designed to provide high data speeds, always-on data access, and greater voice capacity. 3G networks allow the transfer of both traditional communication services (telephony, messaging) and data (such as downloading Internet information, exchanging email, and instant messaging). The high data speeds, measured in Mbps, are significantly higher than 2G. 3G networks technology enable mobile video, high-speed Internet access. The standards of the 3G technology include UMTS, based on WCDMA technology (quite often the two terms are often used interchangeably) and CDMA2000.

3GSO (Third Generation Switch Off)

Activity aimed at switching off 3G already implemented by various operators around the world. TIM will execute it in 2022. The frequencies used can be made available to newer systems such as 5G to ensure greater coverage and capacity while respecting electromagnetic limits.

4G (fourth-generation Mobile System)

Fourth-generation systems are designed to provide, in addition to legacy services, mobile broadband Internet access to several kinds of devices such as laptops with wireless modems, smartphones, tablets, and other mobile devices. Current and future applications include mobile web access, IP telephony, gaming services, high-definition mobile video, video conferencing, Internet of Things and cloud computing applications. 4G standards include LTE e LTE-A (LTE-Advanced). LTE offers a higher spectral efficiency in bits per Hertz and download bandwidth up to 150 Mbit/s per cell reducing the latency time. LTE enables services that require high interactivity (e.g. gaming, video conferencing). A further development of LTE, called “LTE Advanced,” is being implemented and will allow reaching even higher bitrates in download.

5G (fifth-generation Mobile System)

The term 5G indicates the set of technologies whose standards define the fifth generation of mobile telephony with a significant evolution compared to 4G / IMT-Advanced technology. Its global distribution started in 2019. The main elements of the 5G network are:

- Gbit-rate significantly higher than 4G in larger spectrum bandwidth (up to tens of Gbit/s over hundreds of MHz) to ensure greater quality of service, for innovative services such as video download and live streaming;
- ultra-low latency in the order of milliseconds;
- possibility of connecting simultaneously hundreds of thousands of objects (Internet of Things): wearable technologies, automatic systems for traffic control, assisted driving for vehicles, home automation;
- ability to connect moving vehicles at higher speeds.

5G NR (5G New Radio)

It is the new 5G Radio Access Technology (RAT). See 5G SA and NSA.

5G NSA

The non-standalone (NSA) mode refers to a 5G deployment option where NR works in cooperation with an LTE access.

5G SA

The standalone (SA) mode refers to a 5G deployment option based only on one 5G RAT (i.e. NR or LTE) without cooperation with another RAT), connected to a 5G Core Network.

ADS (American Depositary Shares)/ ADR (American Depositary Receipt)

Instruments used for the listing on the NYSE (The New York Stock Exchange).

ADSL (Asymmetric Digital Subscriber Line)

Technology that transforms through a modem the traditional copper fixed line into a high-speed digital connection for the transfer of multimedia data. ADSL is an asymmetrical technology used to achieve broadband transmission.

Agile

In software engineering, the expression Agile (or agile software development) refers to a set of software development methods that are opposed to traditional models such as cascade models (e.g. waterfall model); Agile methods propose a less structured approach focused on the objective of delivering to the customer quickly and frequently software that is functional and with best quality. Among the practices promoted by agile methods, today in general referred to the Project Management of products (not exclusively software), there are: the setup of small, poly-functional and self-organized development teams, iterative and incremental development, adaptive planning, and the direct and continuous involvement of the customer in the product development process.

AI (Artificial Intelligence)

Ability of a technological system to solve problems and carry out tasks and activities typical of the mind and human behavior. In the computer science field, it is the discipline that deals with creating machines (hardware and software) able to "act" autonomously (solve problems, perform actions, etc.).

AON (Active Optical Network)

Optical distribution network based on active equipment. Used for the first optical networks in the 2000s and then replaced by PON.

API (Application Programming Interface)

An API is a set of procedures used to interact with other programs and expand their functionalities. APIs are software libraries available for a given programming language that extend some functionality of the platforms making them interoperable and open to different implementations.

ATM (Asynchronous Transfer Mode)

A network protocol through which the transfer of data is achieved using the encapsulation of fixed length (53 bytes) data units, called cells, instead of variable-length packets as is the case in packet-switched networks.

Automation

This term identifies technologies for automated equipment, systems and processes automation, reducing the need for human intervention and simplifying network setup and maintenance activities.

Backbone

Portion of the telecommunication network that supports long-distance connections and aggregates large amount of traffic and from which the connections for serving specific local areas depart.

Backhauling

It refers to the interface between the radio access node and the core network.

Big Data

Big data is a term used to describe the set of technologies and methods for massive data analysis. The term indicates the ability to extrapolate, analyze and relate a huge amount of heterogeneous, structured and unstructured data, to discover the links between different phenomena and predict the future ones.

Bit-stream access

Wholesale interconnection services which consist in the supply by a dominant telecommunications operator (incumbent) of access transmission capacity between an end customer and an interconnection point of another operator (OLO).

Blockchain

The Blockchain represents an innovative technology for structuring data and information with sharing on the network; a blockchain system is like a distributed database or virtual register, structured as a chain of blocks (hence the term blockchain) containing the transactions, and whose validation is entrusted to a consensus mechanism distributed on all the nodes of the network participating to the chain. The main characteristics of blockchain are the immutability of the registry, the traceability of transactions and the security based on advanced cryptographic techniques. Blockchain technologies are currently used to support global supply chains, financial transactions (e.g. BitCoin), accounting assets and distributed social networks.

BRAS (Broadband Access Server) - BNG (Broadband Network Gateway)

Also named BNG, it is an equipment that handles the access sessions of fixed broadband users. It authenticates the users, terminates the logical links originated at users' premises, produces user accounting data, may apply policies and QoS techniques.

Broadcast

Simultaneous transmission of the same information to all nodes and terminal equipment of a network.

BSC (Base Station Controller)

Control node of the 2G radio access network and interface with the MSC switching node. It has the task of supervising and controlling radio resources, for both call or data setup and maintenance.

BSS (Business Support System)

The system used by network operators to manage business operations such as billing, sales management, customer-service management and customer databases.

BTS (Base Transceiver Station)

Radio base station transmitting and receiving the GSM radio signal to cover an area , split in one or more cells) by using one or more radio transceivers (TRX). BTS performs also GSM communications ciphering/deciphering.

Bundle

Commercial offer including multiple telecommunications services (voice, broadband internet, IPTV, other) by an operator under the same commercial brand. Dual Play bundle includes fixed telecommunication services and broadband Internet; Triple Play bundle is the "dual play bundle" integrated with IPTV; Quadruple Play bundle is the "bundle triple play" integrated with mobile telecommunication services.

Bypass

Opposite of COLT; these are Central Offices that don't contain active equipments for NGA customers; in long term plans will be released, not before migrating all legacy services.

CaaS (Container as a service)

Through a Cloud CaaS (Container as a Service) offer, a consumer acquires in a flexible and dynamic way from a Cloud Provider an environment typically based on Kubernetes technology in which it is possible to execute containers. The CaaS environment will manage the life cycle of the container and the related scaling-up and upgrade needs in line with the shared policies

Caching

Web contents caching (videos, HTML pages, images, etc.) is a technology that allows to reduce bandwidth usage and content access time. A cache stores copies of documents requested by users in location closer to the users than the originating sites, so that subsequent requests can be satisfied by the cache itself, under appropriate conditions.

Carrier

Telecommunication services operator, providing a transport of communication services by means of its physical telecommunication network.

Carrier Aggregation

Technology used to aggregate more radio carriers to increase the transmission speed over a wireless network.

CCA (Current Cost Accounting)

A method of accounting that values assets at their current replacement cost rather than their original cost.

CDMA (Code Division Multiple Access)

CDMA is a channel multiple access method used in radio communication. First radio systems based on CDMA were developed by Qualcomm, and commercially introduced in 1995. It enables the simultaneous transmission on the same channel of multiple signals, each of which is uniquely coded to distinguish it from the other messages.

CDN (Content Delivery Network)

Content Delivery Networks), are content distribution systems (especially large multimedia contents, such as IPTV) managed by a Service Provider for the provision of audio streaming services and video, with better quality towards customers.

CDP (Carbon Disclosure Project)

International initiative that encourages companies to focus on the management of the risks and opportunities emerging from climate change.

Cell

Geographical portion of territory illuminated by a radio base station.

Central Office

A building where the copper wires or optical fibers that make up the access network, reaching the customers, originate from. It hosts equipment for telephony services ('Stadio di Linea' in TIM terms), broadband services (DSLAM) and possibly ultrabroadband services (OLT). Some COs also host equipment of higher hierarchical rank (SGU for telephony, router for data services), and those COs also collect traffic from the other COs which are not so equipped.

Central Unit (CU)

It is a logical node hosting PDCP, RRC and SDAP protocol layers and other control functions based on a higher layer functional split.

Channel

The portion of a communications system that connects a source to one or more destinations by means of transmission media and optical, electric, electromagnetic signals.

Closed User Group

Group of customers who can make and receive calls or messages within the group at special conditions (restricted access, dedicated pricing).

Cloud

The term Cloud is used as an abbreviation of the concept of "Cloud Computing, i.e. a model of consumption of processing resources (for example networks, servers, memory, applications and services) through the network; with the Cloud, the end customer, otherwise defined as cloud consumer, is allowed to access, widespread, easy and on-demand to a shared and configurable set of resources that can be quickly acquired and released with minimal management or interactions with the service provider. The Cloud model is made up of five essential features: 1) Self Service on customer request, 2) broad-network access, 3) resource sharing, 4) elasticity/automation in resource demand, 5) certified SLAs, three service models (see also SaaS, PaaS and IaaS) and four distribution/deployment models (private, public, hybrid and communities).

Cloud Continuum

A cloud composed by a set of point of presence spanning from central to edge locations working as a single cloud.

Cloud native

Cloud native refers to an approach to build applications in a way that allows the full exploitation of the cloud paradigm (see Cloud).

CNF (Cloud Native Function)

Virtualized network functionality on COTS (Commercial Off The Shelf) HW, hosted on Telco Data Center or Public Cloud, flexible and dynamic capacity, use of Containers and Micro Services, automated LCM.

Cogeneration

Cogeneration is the combined production of electrical (or mechanical) energy and useful heat from the same primary source. By using the same fuel for two different purposes, cogeneration aims at a more efficient use of primary energy, with associated cost savings especially in production processes where there is a strong overlap between the use of electricity and heating.

Cognitive Computing

Advanced artificial intelligence system in which the machines have part of the typical functions of a human brain. Cognitive computing technologies are able to process enormous amounts of information, learn autonomously, interact in human language and reproduce human thought models.

COLT (Central Office Long Term)

It refers to Central Offices that remain also for long term plans, connecting NGA customers with Fiber Optic.

Community

A group of people who have some interests in common and communicate via Internet (i.e. via social network).

Connected Cars

A connected car is a vehicle with an internet access and sensors for sending and receiving signals, perceiving the surrounding environment and to get in touch with other vehicles and services.

Co-siting

Agreements to share technological sites (for Telecommunications, specifically, sites of access to the network and passive infrastructure) by several operators in order to achieve a more efficient use of network infrastructure in urban and rural areas.

CO_2 - Carbon Dioxide

Carbon dioxide is one of the major greenhouse gases. It is linked to industrial processes and is the product of combustion especially as the result of the use of fossil fuels.

Container

A container is an abstract unit of software that is executable and self-contained, with everything needed to run an application: code, runtime, tools, and system libraries. Containers have defined parameters and can run a specific program, workload, or task. Each container that runs is reproducible. Containers allow you to decouple applications from the infrastructure of the host on which they run. This approach makes it easier to deploy on different clouds or operating systems.

CPE (Customer Premise Equipment)

The Customer Premise Equipment is an electronic device (terminal, telephone, modem) for telecommunications used on the user's side that is able to connect directly to the geographic transmission network through appropriate interfaces. The connection between the CPE and the network can be realized on physical carrier (optical fiber, telephone twisted pair) or on radio (wireless) carrier.

CPS (Carrier Pre-selection)

Within the framework of the Equal Access policy guaranteed to all operators, the CPS (Carrier Pre-Selection) is a feature of the telephone network that allows to permanently specify the call routing to the chosen operator. This function must be implemented by the access operators in their own plants.

C-RAN

It refers to a Centralized Cloud RAN, a paradigm addressing centralized processing, collaborative radio, real-time cloud computing, and power efficient infrastructure. It is an architecture that aggregates Base Stations computational resources into a central pool by enabling improved radio coordination. C-RAN exploits software-defined networking (SDN) and Network Functions Virtualization (NFV) techniques as well as data center processing capabilities to enable the separation of the control and data planes and to achieve high flexibility by allowing network resource sharing in a dynamic way.

Cybersecurity

It deals with the analysis of threats, vulnerabilities and the risk associated to internet-connected systems, including hardware, software and data, to protect them from the attempt to expose, alter, disable, destroy, steal or gain unauthorized access or make unauthorized use of an asset.

DAS (Distributed Antenna System)

It is a network of distributed antennas connected to a signal source in order to provide wireless services in a geographical area or indoor. The Radiofrequency signal is combined and distributed through an antenna system.

Data Center

The Data Center is the department of a company that hosts and manages back-end IT systems and data repositories: so, its mainframes, servers, databases, etc. In the past, this type of management and control was in a single physical place, hence the name of data center. The development of new distributed computing technologies has inaugurated new management criteria that see more data centers located/distributed at both a physical and virtual level.

DCC (Digital Contact Center)

It is a set of platforms used to connect customers to most appropriate human and virtual Customer Care agents, via different channels (voice, web, apps, mail, chat, sms) and to support agents in the interaction with customers (e.g. Verbal Ordering, Back Office).

DDoS (Distributed Denial of Service)

A distributed denial-of-service (DDoS) is an attack to a target, such as a server, website or other network resource, and cause a denial of service for users of the targeted resource. A flood of incoming messages, connection requests or malformed packets to the target system forces it to slow down or even crash and shut down, thereby denying service to users or systems.

Decommissioning

The term decommissioning means the disposal of the oldest technological solutions (legacy or obsolete) in order to rationalize and simplify the current Telecommunication networks with the aim of optimizing investments and improving the quality and time-to-market of services.

DevOps

In computer science, with DevOps (from the English contraction of Development and Operations) we mean an agile method of software development that aims at communication, collaboration and integration between developers and operations operators. DevOps is therefore an approach to the development and implementation of applications in a company, that has as its objective the release of the product, the testing of the software, the evolution and maintenance (correction of bugs and minor releases) to increase reliability and security and speed up development and release cycles.

Digital divide

The gap between people with effective access to digital and information technology and those with very limited or no access at all. The term encompasses among other things: gaps in ownership of or regular access to a computer, or internet access due to being located in geographical areas with no broadband connectivity.

Distributed Unit (DU)

It is a logical node hosting RLC/MAC/High-PHY protocol layers based on a lower layer functional split.

DLA (Data Layered Architecture)

It is an architecture for real-time management of user data in telecoms networks (such as user profiles, etc.). It introduces a separation between a logically centralized data storage layer, taking care of data consistency and availability, and a front-end layer which handles requests coming from network elements.

DNS
The register containing the numeric IP addresses (for example 123.456.789.0) associated with the alphanumeric addresses (name.surname@dominio.com) commonly used to identify a website or e-mail address.

DPI (Deep Packet Inspection)

It is a technology for analysis of live traffic packets which looks 'deeply' into packets payload, i.e. up to application level, rather than just at IP/TCP/UDP headers level. It enables advanced traffic management.

Dsl Network (Digital Subscriber Line Network)

It is a network technology family that provides wide bandwidth digital transmission at short distances, through the traditional twisted copper pairs from the first switching office to the end user.

DSLAM (Digital Subscriber Line Access Multiplexer)

DSLAM denotes equipment multiplier of digital access lines able to process digital signals of various clients with xDSL lines and multipliy them in a high rate data link to the nodes of the Internet.

DTT (Digital Terrestrial TV)

Digital Terrestrial Television Broadcasting is a type of broadcasting technology that provides a more effective way of transmitting television services (in terms of number of channels and images quality) using a digital system.

DVB-H (Digital Video Broadcasting-Handheld)

DVB-H was a standard for the transmission of digital video optimized for mobile networks and handheld devices such as smartphones and cellular phones.

DWDM (Dense Wavelength Division Multiplexing)

It is a technology for multiplying and transmitting at the same time optical signals with different wavelengths in a single optical fiber in order to increase the available amount of bandwidth.

EDGE (Enhanced Data for GSM Evolution)

It is a technology that increases the speed of data transmission of the GPRS the standard from 30-40 Kbit /s to 400 Kbit / s in the best radio transmission condition.

Edge (Network Edge)

It is a segment of the network lying between access and core, wherein service functions are located (such as, e.g. those performed by BRAS). Depending on the context, it may be quite distributed e.g. to the level of mobile Base Station, or less distributed e.g. at the edge of the backbone.

Edge cloud.

It refers to a cloud infrastructure deployed at the network edge. An Edge Cloud architecture is used to decentralize (processing) power to the edges (clients/devices) of the network.

EEB (Energy Efficiency in Buildings)

International initiative promoted by the WBCSD (World Business Council for Sustainable Development) for research in energy efficiency in buildings in order to reduce the environmental impact and the energy costs.

EFFC (Extraction Full Free Cooling)

A cooling system for the reduction of consumption without the use of greenhouse gases. The EFFC is based on the principle of free cooling (forced ventilation without the use of air-conditioning), combined with a system to extract the hot air produced by the apparatus and further cooling (adiabatic) of incoming air obtained by exploiting a zone with a high concentration of nebulized water.

eMBB (Enhanced Mobile Broadband)

Mobile broadband data service over LTE-A, 5G network

EMF limits (ElectroMagnetic Field limits)

Electromagnetic fields are present everywhere and are generated both by natural sources (thunderstorms, earth magnetism) and human-made ones such as power lines, TV antennas, mobile base stations, microwave ovens. They are known to affect human body in ways that depend on their frequency. For radiofrequency fields, such as those produced by mobile base stations and mobile handsets, the major biological effect is heating of the body tissues. The current view of scientific community, as outlined by World Health Organization, is that while exposure to high levels of EMF are harmful to health, there is no evidence that prolonged exposure to low levels of EMF might be harmful. The definition of what is meant to be a level low enough to be harmless is left to individual Countries, however guidelines have been defined by the International Commission on Non-Ionizing Radiation Protection (ICNIRP).

Regarding Italy, the exposure limit is 20 V/m. Moreover, in homes, schools, playgrounds and places where people may stay for longer than 4 hours per day, an 'attention value' of 6 V/m is applied and averaged over any 24 hour period.

EMS (Environmental Management Systems)

Environmental management systems contribute to the sustainable management of production and support processes and are a stimulus to the continual improvement of environmental performance as they are tools to ensure effective management, prevention and the continuous reduction of the environmental impact in work processes.

eNB (Evolved Node B)

It is the Radio Base Station in 4G technology, which implements LTE radio interface and manages its radio resources.

EPC (Evolved Packet Core)

It is the core segment of a 4G network. It performs management of user mobility, routing of traffic (which in 4G is only packet traffic), policy enforcement, production of accounting data, interconnection with IP networks.

EPC NSA (EPC Non Standalone)

Mobile 4G Core Network capable of supporting LTE and New Radio accesses connected in dual connectivity.

EPON (Ethernet PON)

EPON also known as Gigabit Ethernet PON or GEPON, is a type of pure optical fiber that uses a symmetrical pattern in both downstream and upstream and can reach a maximum of 10 Gigabits per second of transmission. IEEE standardized solution

EPS (External Power Supplies)

External power supplies of equipment.

eSIM (embedded SIM)

It represents the evolution of the SIM: it is an integrated circuit embedded directly inside a device and consequently not extractable and not replaceable, but remotely managed through the functionality of the device itself.

Ethernet

Family of computer networking technologies for local area networks (LANs) and metropolitan area networks (MANs).

EuP (Energy-using Products)

The Eco-Design Directive for Energy-using Products (2005/32/EC) establishes a regulatory framework that manufacturers of energy-using products (EuPs) must follow, from the design phase onward, to increase energy efficiency and reduce the negative environmental impact of products.

Feeder

Carrier class IP routers that perform the function of collecting and concentrating fixed and mobile network traffic as well as commercial one, originating from a basin of Central Office Areas. The traffic collected by the Feeders is delivered in double homing to the Metro nodes on physically diversified routes.

FFC – Full Free Cooling

Cooling system based on the use of forced ventilation to reduce energy consumption.

Fronthaul

In the functional split of a Base Station, it refers to the interface between the Remote Unit (RU) and the Distributed Unit (DU).

FSC (Forest Stewardship Council)

The Forest Stewardship Council is an international non-profit NGO. The FSC represents an internationally recognized forest certification system. The purpose of certification is correct forest management and traceability of forestry products. The FSC logo guarantees that a product has been made with raw materials deriving from forests correctly managed according to the principles of the two main standards: forest management and chain of custody. FSC certification is an independent, third-party scheme.

FTTx (Fiber To The x)

It is the term used to indicate any network architecture that uses fiber optic cabling in telecommunications access networks to replace, partially or totally, traditional copper cables. The various technological solutions differ in the point of the distribution network where the fiber connection is made, with respect to the end-user's location. In the case of FTTC (Fiber to the Cabinet) the fiber connection reaches the equipment (distribution cabinet) located on the sidewalk, from where copper connections are run to the customer; in the case of FTTB (Fiber to the Building) the fiber arrives at the base of the building to a distribution box from where the vertical copper connection starts; in the case of FTTH (Fiber to the Home), the fiber connection terminates inside the customer premises. In the case of FTTO (Fiber to the Office), we mean a solution towards the Office, while FTTR (Fiber To The Room), we intend to arrive with the fiber in different rooms of the house.

FWA (Fixed Wireless Access)

Fixed Wireless Access refers to a set of transmission systems developed to exploit specific frequencies of the radio spectrum in order to provide fixed broadband connectivity services (with nominal connection speeds equal to 1 Gbps).

Gateway

An interconnection node between networks. A Gateway node may be used to separate networks belonging to different Domains or make functionally different networks interwork through protocol interworking.

G-FAST

G.FAST (Fast Access to Subscriber Terminal, group "G" of the ITU-T recommendations) is a DSL standard, fourth generation on copper, adopted by ITU-T starting from 2014 that allows to reach aggregate Downstream speeds + Up Stream of about 500 Mbit / s up to 100m and about 800-900 Mbit / s up to 50m.

It is therefore a technology with a speed higher than VDSL2 and eVDSL but, being optimized for very short distances, it requires the network devices to be positioned even closer to the customer than the cabinets line, or rather in distribution boxes at or at the base of buildings.

GPRS (General Packet Radio System)

Packet switched system to efficiently transmit data over 2G cellular networks.

GPON (Gigabit capable Passive Optical Network)

A passive optical network (PON) is a network architecture that brings fiber cabling to the customer's home using a point-to-multipoint scheme, based on passive optical splitters, to serve multiple rooms with a single optical fiber. GPON is part of a set of PON standards (defined in ITU), which differ according to the maximum overall speed achievable within each optical shaft, a structure often shared with 64 users. In the case of GPON, the maximum speed is about 2.5 Gbps downstream and 1.25 Gbps upstream, shared with a predetermined number of users, which can reach up to 128. Each of the connected lines will then have a maximum nominal speed set by the operator, for example 1 Gbps in download. The other types of GPON standards are:

- XG-PON 10 Gbit/s downstream and 2,5 Gbit/s upstream
- XGS-PON maximum speed 10 Gbit/s downstream and 10 Gbit/s upstream
- NG PON2 maximum speed 40 Gbit/s downstream and 10 Gbit/s in upstream .

GRX (GPRS Roaming eXchange for Mobile Operators)

The GRX service allows Mobile Operators to globally interconnect GPRS networks around the world enabling global GPRS roaming coverage.

GRI (Global Reporting Initiative)

The Global Reporting Initiative (GRI) is a leading organization in the field of sustainability. GRI promotes sustainability reporting as a way for organizations to become more sustainable and contribute to sustainable development.

GSM (Global System for Mobile Communication)

A worldwide standard for digital cellular telephony working on the 900MHz and 1800MHz bands. It belongs to the Second Generation (2G) of mobile systems.

HCFC (Hydrochlorofluorocarbons)

Chemical compounds used mainly in cooling systems to replace chlorofluorocarbons (CFCs) which were banned by the Montreal Protocol. They have a more limited effect in depleting the ozone layer (approximately 10% of the ozone-depleting potential of CFCs).

HCP (Hyperscale Cloud Provider)

Cloud infrastructure provider able to massive scale resources on large number of servers distributed on a global scale

HFC (Hydrofluorocarbons)

Compounds used in cooling systems. They belong to the family of greenhouse gases. They do not harm the ozone layer.

HDSL (High-bit-rate Digital Subscriber Line)

Technology of xDSL family, standardized in 1994. It provides up to 8 Mb/s symmetrical over copper.

HLR (Home Location Register)

Database where customer data are recorded. It is part of 2G and 3G systems.

Home Access Gateway – Access Gateway – Home Gateway – Residential Gateway

Home networking device that is used to concentrate voice/data/video traffic of customers for private TLC networks and to connect devices in the home to the Internet or other WAN.

Hybrid Cloud

A Cloud solution composed by both private and public resources

Housing

Leasing of physical space to customers, which is managed within a data center for the installation of their own equipment or servers.

HSPA (High Speed Packet Access)

Evolution of UMTS, which enables broadband mobile data both in Downstream (HSDPA) and Uplink (HSUPA), up to 42 Mb/s and 5.76 Mb/s, respectively.

IaaS (Infrastructure as a Service)

Through a Cloud IaaS offer (Infrastructure as a Service, see also Cloud models), a consumer acquires from a Cloud Provider in a flexible and dynamic way computing, memory, network resources and other fundamental calculation resources, through which the customer can develop and run arbitrary software, including operating systems and applications. The consumer does not manage or control the underlying Cloud infrastructure, but controls operating systems, memory, applications and possibly, in a limited way, some network components (e.g. firewalls).

ICT (Information and communication(s) technology)

Broad area concerned with information technology, telecommunications networks and services and other aspects of managing and processing information, especially in large organizations.

IEEE (Institute of Electrical and Electronics Engineers)

An organization of professional scientists aiming at promoting technology science and research in the field of electrical and electronics engineering and related fields. IEEE also works as a publishing house and standardization body.

IMS (IP Multimedia Subystem)

It is the architecture for providing IP Multimedia services, i.e. voice/video/text/etc communications over IP networks. It comprises all the network elements related to signaling and media flow handling.

IMSI (International Mobile Subscriber Identity)

The International Mobile Subscriber Identity is a unique identifier associated with a SIM card in cellular networks.

Interconnection

Interconnection refers to the physical and logical connection among public telecommunication networks belonging to different operators, in order to enable users of an operator to communicate with users of the same or a different operator, or to access services provided by another operator.

Internet

Global network for networks interconnection based on a common protocol suite, i.e. TCP/IP, which is the language by which connected equipment (hots) are able to communicate.

Internet of Things

The Internet of Things refers to the extension of Internet to the world of objects (devices, equipment, systems,..), which become recognizable and acquire intelligence thanks to the fact that they can communicate data about themselves and access aggregate information from part of others. There are many fields of applicability: from industrial applications (production processes), logistics and infomobility, to energy efficiency, remote assistance and environmental protection.

IP (Internet Protocol)

A connectionless data routing protocol, used for data transmission on both public and private networks, in particular over the Internet.

IPCC (IP Contact Center)

See DCC.

IP/MPLS (Internet Protocol/Multi Protocol Label Switching)

A packet switching protocol to optimize network behaviors of mapping Layer3 (IP) end-to-end data flow to Layer2 traffic between adjacent network nodes.

IPTV (Internet Protocol Television)

A system that utilizes the Internet Protocol infrastructure to transmit digital television content over a network and deliver it via a broadband Internet connection.

ISDN (Integrated Services Digital Network)

A narrowband system in which several services (e.g., voice and data) may be simultaneously transmitted end to end in digital form.

ISPs (Internet Service Provider)

A vendor who provides access to the Internet and World Wide Web.

ITU (International Telecommunication Union)

An international organization that aims to set telecommunications standards and in the use of radio waves. Founded in 1865 in Paris, it is one of the specialized agencies of the United Nations and its head office is in Geneva.

Jitter

In electronics and telecommunications jitter indicates the variation of one or more characteristics of a signal such as, amplitude, frequency, phase, transmission delay. The causes leading to jitter must be kept at the center of the design of electronic systems and components in which signal integrity is a strict constraint.

KVAR (kilovolt–amperes reactive)

Measurement system, expressed in kilovolt, of electric current lost in an AC electrical system.

LAN (Local Area Network)

A private network that covers a local geographic area and provides telecommunications services as well as interconnection between personal computers.

Lambda

Represents the single optical channel on which a signal is transmitted in fiber-optic networks.

Latency

The latency of a system can be defined as the time interval between the time the input arrives to the system and the time when its output is available. In other words, latency is nothing more than a measure of the speed of response of a system.

LCA (Life Cycle Analysis)

Analysis methodology for the evaluation and quantification of environmental impacts associated with a product/process/activity along the entire life cycle from the extraction and acquisition of raw materials to the end of its life.

LLU (Local Loop Unbundling)

Service by which operators other than TIM can lease the local loop, i.e., the wire connection between the TIM local exchange and the customer's premises.

Local Aggregator

Carrier class IP router that perform the function of collecting and concentrating fixed and mobile network traffic as well as commercial one, for a single Central Office Area. The traffic collected by the Remote Feeders is delivered in double homing to the Feeder nodes, possibly on physically diversified routes.

Local Loop (Twisted Pair)

Twisted pair of copper wires through which the telephone connection reaches users; it is the foundation of traditional telephone lines and it is often called the “last mile”.

LTE (Long Term Evolution)

See 4G.

Machine Learning

It is the ability of computers to learn without having been explicitly and preventively programmed.

MBB (Mobile Broadband)

Mobile broadband data service on 3G / 4G-LTE network

mMTC (Massive machine type communication)

mMTC, also known as massive machine communication (MMC) or massive Machine to Machine communication, is a type of communication between huge number of machines over wireless networks where data generation, information exchange and actuation takes place with minimal or no intervention from humans.

MEMS (Micro-Electro-Mechanical Systems)

MEMS are miniaturized devices ranging in size from a few micrometers to a few millimeters, which execute one or more monitoring, processing or actuation functions by deploying a combination of electronic, mechanical, optical, chemical or biological components integrated on a usually silicon hybrid circuit.

Metro (M)

Carrier class IP routers that perform the function of collecting and concentrating fixed and mobile network traffic as well as of commercial origin relating to their MAN area.

MGCP (Media Gateway Control Protocol)

An Internet Engineering Task Force (IETF) signaling protocol allowing a bridge between classic telephone networks and Internet (i.e., IP-based) infrastructures.

MGW (Media GateWay)

Equipment that processes voice and video traffic adapting codings between different technologies (e.g. from circuit to packet).

Microservices

In the development of modern software applications, when the term micro-services is used, a specific architectural model for the development of a single application as a suite of small services is indicated; each micro-service is identified as a specialized processing process (e.g. a web server, a storage application, etc.) and is able to communicate with fast and lean mechanisms, often based on API interfaces for the description of HTTP resources. These services provide capabilities for the development of a company's business and are particularly suitable for the creation of software products according to agile methodologies; each micro-service can be implemented and managed independently using fully automated implementation algorithms, thus ensuring maximum flexibility in the development and maintenance of applications.

Midhauling

In the functional split of a Base Station, it refers to the interface between the Distributed Unit (DU) and the Central Unit (CU).

MIMO (Multiple Input Multiple Output)

It is a set of techniques aimed to increase the overall bitrate of radio access through simultaneous transmission of two (or more) different data signals on two (or more) colocated antennas, using the same frequency resources. The receiving side, also equipped with two or more antennas, is able to discriminate the different data signals by exploiting the differences in time and direction of arrival of the simultaneous signals that are caused by multipath propagation. Actually, multipath propagation i.e. the fact that a signal from A reaches a point B via multiple paths due to reflection and scattering from objects (such as buildings, trees) is a natural phenomenon affecting radio communications, which used to be seen as an impairment. Conversely, MIMO techniques exploit (using suitable signal coding) this multiplicity of paths to increase capacity.

MSC (Mobile Switching Center)

Executes functions such as controlling calls, switching traffic, billing, controlling and authentication and acts as an interface with other networks.

Multimedia

A service involving two or more communications media (e.g., voice, video, text, etc.) and hybrid services created through their interaction.

Multicast ABR (Multicast Adaptive Bit Rate)

Technology that encodes the video multicast traffic in different streams at different bitrates, used according to the channel conditions, allowing to optimize the use experience the use of network resources.

MVNO (Mobile Virtual Network Operator)

MVNO is a mobile communications service provider that does not own the radio spectrum or wireless network infrastructure over which the MVNO provides services to its customers.

NaaS (Network as a Service)

The term NaaS (Network as a Service) refers to the provision of virtual network services by a Network Provider to a third party, such as a Service Provider not equipped with geographically networked resources, or a medium/large customer that requires basic or advanced connectivity resources on a public or shared network infrastructure. Some examples of services that refer to the NaaS model are VPNs (Virtual Private Networks, Dynamic Bandwidth Services (BoD, Bandwidth on Demand) and Mobile Network Virtualization. Today, the spread of NaaS offers is increasingly supported by flexible network virtualization models and the use of network programming and automation technologies, such as Software Defined Networking (SDN).

Naked

A digital subscriber line without an analog or ISDN telephony service. It is a line dedicated to data services.

NB IoT (NarrowBand Internet of Things)

It is a 3GPP specification enabling the Internet of Things, based on the optimization of narrowband radio access aimed at the application of LTE technology to sensor networks: few and small messages per day, high coverage range (e.g. to reach the counters in the basements), very high battery life (target 10 years), high number of connections per cell (tens of thousands) and very low cost of the modules.

Net Neutrality

Net neutrality is the principle that Internet service providers should treat all data equally and not discriminate or charge differently based on user, content, website, platform, application, type of equipment, or method of communication.

Network

An interconnected system of elements. In a telephone network, these consist of switches connected to each other and to customer equipment. The transmission equipment may be based on fiber optic or metallic cables or radio connections.

Network cap

See Price cap.

Network Slicing

Network Slicing referred to 5G. Creation of multiple ad hoc logical networks segregated from each other on the same physical network infrastructure. Each network slice is an isolated end-to-end network tailored to fulfil different requirements requested by a particular application.

NFV (Network Function Virtualization)

The NFV paradigm allows both fixed and mobile network functions to become software applications, called VNF (Virtual Network Function), which the operator can instantiate on commercial servers, exploiting virtualization technologies, separating the link between hardware and software present in the current network devices.

NGAN (New Generation Access Network)

It can be realized with different technological solutions, typically fiber optic and VDSL pairs.

NGDC (Next Generation Data Center)

A major rethink of the IT and Data Center architecture through the physical concentration and virtualization of servers to reduce the costs of maintenance/management and energy consumption, and to improve efficiency.

NGN (Next Generation Network)

New generation network created by TIM to meet the demands of corporations, public administrations and citizens. The new network architecture guarantees an infrastructure designed to cover multiple offers by increasing customization levels and bandwidth availability, removing bandwidth limits and providing a huge capacity along with a wide selection of access systems.

NGNs (Non-Geographic Numbers)

Non-geographic numbers are unique as they are by definition not associated with any particular geographic location (e.g. premium rate services, toll free, directory assistance services).

Node

Topological network junction, commonly a switching center or station.

Node B (similar to BTS in GSM)

This is the Radio Base Station in UMTS technology which, via an antenna, sends the UMTS radio signal that creates cell coverage (typically 3 cells for Node B). It also performs functions that are strictly linked to managing the radio connection.

Nodal Optical Center- (Centro Nodale Ottico, CNO)

It is the point of flexibility in the PON architecture and separates the primary optical network from the secondary optical network. The CNO houses the optical divider and the splitters connected to the passive fiber optic network.

N-play offering

Offerings to customers which bundle two or more of the following mobile and fixed services: voice, broadband and ultrabroadband data, video and TV, mobile.

NYSE

The New York Stock Exchange.

OAO (Other Authorised Operator)

Operators other than the incumbent one that provide services to their customers exploiting the fixed access network of the incumbent.

ODF (Optical Distribution Frame)

ODF is a frame used to provide cable interconnections between communication facilities, which can integrate fiber splicing, fiber termination, fiber optic adapters & connectors and cable connections together in a single unit.

OHSAS (Occupational Health and Safety Assessment Series)

International Standard that sets the requirements that a management system for the protection of workers' health and safety must meet.

OLOs (Other Licensed Operators)

Companies other than the incumbent operator that operate telecommunications systems in a national market.

OLT (Optical Line Termination)

Optical element of the PON network (Passive Optical Network) that acts as an interface between the PON itself and the Backbone network. OLT is located in the central office.

ONT (Optical Network Termination)

Optical element of the PON (Passive Optical Network) network that performs the function of interface between the access gateway at the customer's home and the OLT equipment in the Central Office. OLT is located at the customer's site, is powered, receives and decrypts (and vice versa) the optical signal, and converts it into an electrical signal (via an Ethernet output), suitable for the access gateway.

ONU (Optical Network Unit)

Optical element of the PON network (Passive Optical Network) which acts as an interface with the user access device or the distribution network to users. ONU is located in the distribution cabinet.

OPC (Optical Packet Core)

It is the multiservice IP backbone for national transport (formerly named OPB, Optical Packet Backbone). It is made up of interconnected nodes which are called OPC (formerly OPB) nodes, and of the very high capacity connections existing between them.

OPM (Optical Packet Metro)

It is a metro-regional network that provides Ethernet and IP connectivity for fixed and mobile network traffic, as well as for Retail or Wholesale customers. It consists of IP routers distributed on three hierarchical aggregation levels: Remote Feeder, Feeder and Metro, interconnected in double homing by physically diversified (where possible) double-way links.

Open Source

Open Source is a computer software in which source code is released under a license in which the copyright holder grants users the rights to study, change, and distribute the software to anyone and for any purpose. Open-source software may be developed in a collaborative public manner.

Optical fiber

Thin glass, silica or plastic wires, building the base infrastructure for data transmission. An optical fiber cable contains several individual fibers, and each of them is capable of delivering a signal (light impulse) at almost unlimited bandwidth. Optical fibers are usually employed for long-distance communication: they can transfer "heavy" data loads protected from possible disturbances along the way. The driving capacity of optical fibers is higher than the traditional cable and copper twister-pair lines.

Optical Splitter

It is a passive element of the optical network used to create point-to-multipoint optical networks. The optical splitter receives a single optical fiber input (OLT side) and produces N signals on N optical fibers (splitting factor 1:N). In the downstream direction (from OLT to ONT) the splitter "copies" the incoming light on the output optical fibers, thus dividing the light power by N. In the upstream direction (from ONT to OLT) the splitter takes care of adding the light contributions brought by the N optical fibers.

ORAN

It refers to Open RAN, an architecture for building the virtualized RAN on open hardware, with embedded AI-powered radio control. Such an architecture is based on well-defined, standardized interfaces to enable an open, interoperable supply chain ecosystem in full support of and complimentary to standards promoted by 3GPP and other industry standards organizations.

OSS (Operations Support System)

Methods and procedures (whether automatized or not) that directly support the daily operation of the telecommunications infrastructure.

OTB (Optical Termination Box)

Passive optical equipment of the PON (Passive Optical Network) that plays the role of splitter of an optical fiber entering the network, in several fibers leaving to the households or plays the role of distributor of incoming and outgoing fibers to give flexibility to the optical network. It is installed a few meters from the households: very often it is located in the counter room of the building, but it can also be mounted on an external wall, or buried or inserted in a cloister.

OTN (Optical Transport Network)

It is a technology designed to enable multiplexing of digital signals for transport over WDM links, and to achieve OAM capabilities for these signals similar to those available in SDH.

This allows a better utilization of WDM links, since it allows to fill lambdas with high rate signals (e.g. 100 Gb/s), which may contain several lower rate signals (e.g. 10 Gb/s), rather than devoting a lambda for each lower rate signal.

OTT (Over the Top) players

Operators offering contents and services on the Internet without owning the proprietary TLC network infrastructure.

Outsourcing

Entrusting an external party carrying out services and business operations. For example, it can be outsourced the planning, construction and hosting services of a telecommunications management system and, ultimately, the management of the entire telecommunications system.

PaaS (Platform as a Service)

The PaaS (Platform as a Service) represents one of the three Cloud offer service models; through a PaaS offer of a Cloud Provider, the consumer is given the opportunity to distribute applications created on their own, or acquired by third parties on the cloud infrastructure, using programming languages, libraries, services and tools supported by the supplier. The consumer does not manage or control the underlying cloud infrastructure, including network, servers, operating systems, memory, but has control over the applications and possibly the configurations of the environment that hosts them.

Packet-Switched Services

Telecommunications services provided by telcos and long-distance carriers that route packets of data between local area networks (LANs) in different geographical locations to form a wide area network (WAN). Packet-switching services are used to connect multiple LANs into a point-to-multipoint configuration, usually called a multipoint WAN.

Pay-Per-View or PPV

A system by which the viewer pays to see a single program (such as a sporting event, film or concert) at the moment at which it is transmitted or broadcast.

Pay TV

Subscription TV channels. To receive Pay TV or Pay-Per-View programs, a decoder must be connected to the television set, and a conditional access system is needed.

PCS (Personal Communications Services)

Set of wireless communications functionalities, voice and/or data, which provide similar services such as mobile ones.

Peering

Peering is the voluntary interconnection of Internet networks, that refer to different Internet Service Providers, which allows users to exchange traffic between different networks.

Penetration (market penetration)

It represents the number of people (or subscriber) who acquires goods / services of a particular brand or a particular category, divided by the population where the service is available.

PNF (Physical Network Function)

Network functionality on physical HW, hosted in Telco offices, static capacity, management via Element Manager.

Platform

It's an execution environment that includes hardware, software, application servers and other supporting tools, for the execution of programs.

PON

PON stands for "passive optical network" referring to the optical network composed by non-active components in all stages between the origin (local exchange) and the external sides (subscriber or clients).

POP (Point Of Presence)

The POP is a point of access to the network (router), provided by an Internet Service Provider (ISP), able to route traffic to end users connected to POP.

POTS (Plain Old Telephone Service)

Refers to the basic telephony service, (single-line telephones, fixed-line services and access to public voice telephony network).

Price-cap

Identifies the maximum price limit set by a regulator at which a service /product can be sold.

PSTN (Public Switched Telephone Network)

PSTN, also known as the Public Switched Telephone Network, is the first-generation telephone network and provides basic telephone service.

PTN (Packet Transport Network)

It is a class of equipment that implement natively both SDH and Ethernet technologies, i.e. it is able to transport and switch separately both kinds of traffic. It is used to connect smaller, peripheral Central Offices to larger ones, that is a use case where aside packet traffic (e.g. backhauling of broadband access and mobile sites) also legacy circuit traffic (e.g. voice, 2G backhauling) may be found.

QKD (Quantum Key Distribution) - QKE (Quantum Key Exchange)

Quantum key distribution (QKD in acronym, from English: Quantum key distribution) is a system of quantum mechanics to ensure secure communications. It enables two parties to produce and share a random secret key only between themselves which they can use to encrypt and decrypt their messages. This exchange takes place by exploiting the quantum properties of photons. An important and unique property of quantum distribution is the ability of the two communicating users to detect the presence of a third party attempting to obtain information about the key, due to the fact that a measurement process in a quantum system in general disturbs the system.

RAN (Radio Access Network)

It is the part of mobile network that implements the radio technologies, comprising data transport functions over air interface and control functions.

RAN Sharing

Is the most comprehensive form of access network sharing. It involves the sharing of all access network equipment, including the antenna, tower and backhaul equipment. Each of the RAN access networks is incorporated into a single network, which is then split into separate networks at the point of connection to the core.

Reliability (or Availability) (A)

Is the probability of an object to perform a required function under certain operating conditions and at a given instant of time

Refarming

Reassignment of frequency band of an operator of mobile networks from one technology to another for optimization reasons (examples: UMTS900 instead of GSM900 or LTE1800 instead of GSM1800).

Remote Unit (RU)

It is a logical node hosting Low-PHY protocol layer and RF processing based on a lower layer functional split.

RNC (Radio Network Controller—counterpart of BSC in GSM)

RNC is the equipment (or node) for the control and aggregation of 3G network.

ROADM

A ROADM (Reconfigurable Optical Add-Drop Multiplexer) is a remotely reconfigurable optical multiplexer capable of switching traffic in a WDM (Wavelength-Division Multiplexing) system. Its use in a transmission network increases the efficiency of the transport allowing to transmit up to over 90 high bitrate channels (today up to 200Gbit/s) on a single pair of fibers.

Roaming

Agreement among two or more Mobile Operators from different Countries, under which Users can use the mobile network of other Operators participating in the agreement.

The roaming service is activated for example when the terminal is used overseas and enables a mobile user to access a different network from the one to which he subscribes.

RoHS (Restriction of Hazardous Substances)

European Directive No. 95/2002 that regulates the use of hazardous substances in electrical and electronic equipment, in order to contribute to the protection of human health and environment.

RTG (Rete Telefonica Generale)

RTG, also known as the Public Switched Telephone Network, is the first-generation telephone network and provides basic telephone service.

SaaS (Software as a Service)

As part of the Cloud offer service models (see also Cloud entry), the SaaS (Software as a Service) model expresses the faculty provided to the consumer to use a supplier's applications and services, operating on a cloud infrastructure. The applications are accessible from different devices through a light interface (e.g. a thin client), such as an email application on a browser, or from programs with a specific interface. The consumer does not manage or control the underlying cloud infrastructure, including network, servers, operating systems, memory, and even the capabilities of individual applications, except for limited configurations intended for him.

SAR (Specific Absorption Rate)

SAR is a measure of the percentage of electromagnetic energy absorbed by the human body when it is exposed to the action of an electromagnetic field at radio frequency (RF). See also EMF limits.

SDH Standard (Synchronous Digital Hierarchy)

The European standard for high-speed digital transmission.

It’s a protocol of the physical layer used for multiplexing in time division and the subsequent digital transmission of telephony and data, in geographic networks on optical fiber, electric cable or radio link.

SDN (Software Defined Networking)

Software Defined Networking is a paradigm based on network virtualization whose aim is to transform traditional networks into flexible and intelligent platforms to satisfy in real time the bandwidth requirements and the dynamic nature of digital applications.

SD WAN (Software Defined WAN)

In Networking topic, the SD-WAN (Software Defined WAN) solutions are an innovation of the traditional Wide Area Network solutions and of the Edges IP Networking, developed to offer advanced connectivity services addressed to Business customers. SD-WAN solutions work agnostically with respect to the access technology, the WAN transport network, they use dynamic routing of data on an application basis and in strong integration with Multi-Cloud solutions, to link connectivity to some added-value services such as WAN optimization, application monitoring and advanced security.

Service Exposure

The Service Exposure is an infrastructure to expose functionalities, called API (Application Programming Interface), both to Third Parties (eg Business Partner), both for internal use.

Service Orchestration

Service orchestration means a single centralized business process that can be performed by an orchestrator (e.g. a SW platform) that coordinates the interaction between various services and is responsible for their invocation and composition, as well as the management of transactions between the individual services. Service orchestration is often compared to Service Choreography, which instead makes a decentralized approach to the composition of services, where each of the services participating in the choreography implements a self-consistent process / workflow.

Service Provider

The Service Provider offers to the Users (Residential or Business) that subscribe his offer, a range of contents and services.

SGU (Local exchange interconnection level for telephone traffic)

Local Exchange for telephone traffic carriage, routing and transmission. See also Central Office.

SIP Trunking

Session Initiation Protocol (SIP) Trunking is a service offered by a communications service provider that uses the protocol to provision voice over IP (VoIP) connectivity between an on-premises phone system and the public switched telephone network (PSTN). SIP is used for call establishment, management and teardown.

SL (Distribution Frame level for telephone traffic)

See Central Office.

Shared Access

Shared access to the user's twisted pair with another TLC service provider by using separately voice and non-voice band frequency spectrum. This mode allows keeping voice telephony with an Operator (TIM or others) and ADSL service on the proprietary network of the shared access operator (i.e. not passing over the TIM network but directly through the DSLAM of the operator).

SLA (Service Level Agreement)

Service Level Agreements are contractual instruments through which service metrics are defined (eg quality of service) that must be respected by a service provider (provider) towards their customers / users.

SLU (Sub Loop Unbundling)

It consists in providing access to the local sub-section of the Operator copper network, in particular the section of the network between the user site and the distribution cabinet or an intermediate concentration point.

Small Cells

Small cells are low energy consumption access nodes to the radio spectrum. . Smaller than the antennas, Small Cells are usually used in mobile telephony, both for the coverage of outdoor areas (squares, pedestrian streets, etc.) and for the coverage of indoor hot spots (airports, stadiums, shopping centers, stations, hospitals, university campuses, etc.).

SME (Small Medium Enterprise)

Market segment of small- and medium-size enterprises (from 3 to 50 employees).

SMART CITY

The term Smart City refers to an urban area that uses integrated ICT technologies to optimize resources in key areas: mobility, communication, economy, work, environment, administration and construction. From an infrastructural point of view, the use of available resources on the web improves economic and political efficiency and can allow social, cultural and urban development.

Smartphone

Electronic device that combines the functions of a mobile phone and a handheld computer equipped with a complete operating system.

SMART TV

The term Smart TV identifies the new generation of televisions which allows us to enjoy multimedia audio-video content (movies, TV series, music videos, gaming,..) through an internet connection.

SMS (Short Message Service)

Short text messages that can be received and sent through GSM-network connected cellular phones. The maximum text length is 160 alpha-numerical characters.

SOHO (Small Office / Home Office)

Market segment consisting of businesses that use telephone lines to connect to the Internet, as opposed to dedicated lines, and is made up of small businesses, generally with one or two employees, and businesses conducted out of the home.

SON (Self-Organizing Network)

It is a set of technologies and architectures that allows Operators to introduce, in the context of radio-mobile networks, the technological enablers for the automation of network configuration, optimization and assurance processes.

Switch

- (Telephone switch) Synonymous of Telephone Exchange, i.e. network equipment used to set up and route telephone calls to the number called possibly through other switches. They may also record information for billing and control purposes;
- (Network switch) Data networking equipment able to receive and forward packets using information at layer 2 of OSI (Open Systems Interconnection) model (i.e. hardware addresses of other equipment).

Synchronous

Type of data transmission in which there is permanent synchronization between the transmitter and receiver.

STB (Set-Top Box)

It is a customer device able to receive TV signals from a communication network (such as broadband/ultrabroadband access network, terrestrial broadcast, satellite broadcast, etc) and output them to TVs and other display devices (monitors, projectors, etc.). It may include Conditional Access functions to handle paid content.

Tablet

Portable computer with compact dimensions whose screen can be used to write or give commands with the touch of your fingers or using a specially designed stylus.

TAL (Tele Alimentation for Remote Power Feeding)

Technique for power feeding roadside network equipment (such as ultrabroadband equipment located in street cabinets in Fiber to the Cabinet architecture) from the local exchange.

TCO (Total Cost of Ownership)

The TCO represents the global cost of an asset (eg an IT equipment) during its life cycle. The TCO takes into account both direct costs (hardware costs, network infrastructure, licenses) and indirect costs (management, maintenance, energy consumption).

TDMA (Time Division Multiple Access)

A technology for digital transmission of radio signals between, for example, a mobile phone and a radio base station. TDMA breaks signals into sequential pieces of defined length, places each piece into an information channel at specific intervals and then reconstructs the pieces at the end of the channel.

ToIP (Telephony over IP)

The term is often used as synonymous of VoIP, however it has a wider meaning since it includes advanced telephony services (such as video, messaging, possibly some call handling, etc) beyond the basic voice communication.

TRX

Radio transceivers located in BTS.

UltraBroadBand

Includes all network technologies that offer connectivity from 30Mbit/s to over 1Gbit/s, referring in particular to the peak rate and not to the average available. The definition is related to the characteristics of the fixed and mobile access network. By increasing the capacity and the speed, Ultra Broadband technologies allow quicker access from multiple users to the content available on the net, also on the move, and to take advantage of high quality video up to Ultra HD and interactive gaming.

- Fixed ultra-broadband: includes access technologies that involve the use of optical fiber, known as FTTx.
- Mobile ultra-broadband: refers to the use of the HSPA mobile network (evolution of the 3G network), LTE and its evolutions and the 5G network.

URLLC (Ultra-Reliable Low-Latency Communication)

URLLC is a set of features that provide low latency and ultra-high reliability for mission critical applications such as industrial internet, smart grids, remote surgery and intelligent transportation systems.

UMTS (Universal Mobile Telecommunications System)

See 3G.

Unavailability (U)

is the probability of an object not being able to perform a required function under certain operating conditions and at a given instant of time.

Unbundling

It is the service offered by the incumbent to the alternative operator which consists of the rental of the local loop i.e. the wire connection between the local exchange and the customer's premises, so that the alternative operator is able to connect the twisted pair from the customer to its own equipment.

Universal Service

The obligation to supply basic service at an affordable price, or at special rates solely for subsidized users.

UPS (Uninterruptible Power Supply)

Electrical equipment that provides continuous powering to users in case of power outage.

VAS (Value-Added Services)

Value Added Services provide a higher level of functionality than the basic transmission services offered by a telecommunications network. In PSTN and first generation mobile networks the basic service was telephony (switched voice calls, initially analog and later digital ones) while VAS could include data and fax transmission services, as well as call handling features such as call waiting, call forwarding, etc..

As time passed VAS based on call handling grew with further features such as toll free calling, voice virtual private networks, etc. A new class of VAS also developed in mobile networks, including message handling services such as SMS and MMS. In parallel, development of data networks turned data transmission services (initially X25, then Frame Relay, ATM, Ethernet, IP) into basic services of those networks, on top of which there may be VAS such as address translation, data virtual lines and virtual networks, traffic priority, encryption, etc..

A further category of VAS is those based on contents of Service Providers linked to the network, beginning with contents provided on telephony network, going on with contents delivered via SMS (news, meteo, etc) and contents provided via browsing from mobile and fixed terminals, and arriving to video streaming contents.

VDSL (Very - high – data – rate Digital Subscriber Line)

Access technology that allows providers to give clients, by means of an apparatus installed in their homes, access to voice and TV services on the traditional telephone line with speeds of up to 50 Mbps in downstream.

VDSL2 (Very - high – data – rate Digital Subscriber Line 2)

“2nd generation” VDSL, able to achieve downstream speed in the range of hundreds of Mbps. Actual data rate however is largely dependent upon the distance between customer equipment and network equipment, e.g. for distances of some hundred meters the achievable rate is about 100 Mbps. For this reason, network equipment is typically located in street cabinets, so to be closer to customers. A VDSL2 evolution named eVDSL (enhanced VDSL) yields achievable rates around 200 Mbps; it has been recently deployed in TIM network.

Vectoring

Transmission technology that removes mutual interference (crosstalk) between copper lines bundled in the same cable. Of particular interest is the use on VDSL / VDSL2 / eVDSL lines in view of the growing penetration of ultrabroadband services, which would make interference more perceptible. In this perspective, the use of vectoring allows to maintain the typical performances of the aforementioned technologies. The technology is placed in the ONU apparatus where to be effective it is applied on all the lines of a cable; this means that in case of SLU (Sub Loop Unbundling), that is the presence of ONUs of several operators serving the lines of the same cable, a more complex implementation is required, the MOV (Multi-Operator Vectoring) that coordinates the vectoring of the different ONUs.

Virtualization

An approach to implementation of functionality resorting only to software running on general purpose hardware generally not dedicated, as opposed to approaches resorting also to special purpose and/or dedicated hardware.

Virtual machine (VM)

Is an isolated, digital instance of a computer—its operating system, applications, and memory— without the underlying hardware that allows organizations to scale compute power, test malware, and develop software.

VNF Virtual Network Function

Virtualized network functionality on HW COTS (Commercial Off The Shelf), hosted on Telco Data Center, flexible capacity, use of Virtual Machine and manual or automatic Life Cycle Management.

VOD (Video On Demand)

TV-program offering on user’s request, with payment of a fee for each purchased program (a movie, a soccer match, etc.). Broadcast specifically for cable and satellite TV.

VoIP (Voice Over IP)

A technology that allows transmission of voice communication over an Internet connection or another dedicated network using the Internet Protocol (IP) data networks (such as IP-based LANs, Intranets or the Internet) instead of a conventional phone line.

VoLTE/ViLTE (Voice over LTE / Video over LTE)

A service providing voice and video calls over IP via LTE radio access, controlled by standard ToIP architecture named IMS (IP Multimedia Subsystem). The mated naming VoLTE/ViLTE is used since the service is essentially the same for voice and video, differing only in the type of media streams that are set up. Since it is standard based, it achieves interoperability among user terminals and between terminals and networks.

VoNR (Voice over New Radio)

Service that provides voice calls over IP via New Radio radio access.

VPN (Virtual Private Network)

A network designed for a business customer or government agency, using the infrastructures of a carrier and providing customized services, and which operates in such a manner as to appear dedicated to the user thereof.

VRAN (Virtual Radio Access Network)

It is an architecture applied in 4G/5G networks which implies a split of the Base Station between a Centralized Unit and a Remote or Distributed Unit. The CU is typically placed in a more centralized site than antennas and deals with baseband signal processing, so also the terminology BBU (BaseBand Unit) is used, while the Remote Unit is left at antenna sites to provide radio coverage and is also termed RRU (Remote Radio Unit). Given this split the CUs may be implemented as Virtual Network Functions on a suitable hardware infrastructure, from which the ‘virtual’ title.

For the viability of the architecture a key issue is the choice of the partition of Base Station functions between CUs and DUs, which affects the requirements on communication links CU-DU (referred to as midhaul). In the 5G development efforts this issue has been addressed by identifying split options that are candidate for standardization.

VULA (Virtual Unbundling Local Access)

A wholesale service provided by incumbent providers to alternative operators, where the incumbent provides – over its broadband access network – the transport of data traffic (a 'bitstream') between the end customer and an interconnection point where the alternative operator receives said traffic. In TIM's case, the interconnection point is located at local exchange level, aside the OLT (Optical Line Termination) i.e. the head end of optical access network.

WAN (Wide Area Network)

A private network that covers a wide geographic area using public telecommunications services.

WEEE (Waste Electrical and Electronic Equipment)

Waste from electrical and electronic equipment which the holder intends to dispose of as it is faulty, unused or obsolete.

White, gray and black areas

The distinction between white, gray and black areas is relevant for the assessment of state aid to support the development of ultrabroadband networks, in terms of the compatibility of the aid with respect to Community legislation. This classification is contained in the European Union Guidelines:

- white areas are areas without ultrabroadband (UBB) networks (connectivity), where private investors do not intend to invest in the next three years;
- gray areas are areas in which an ultrabroadband (UBB) network (connectivity) is present or will be developed in the next three years by a single private operator;
- black areas are areas in which at least two ultrabroadband (UBB) networks (connectivity) of different operators are present or will be developed over the next three years.

Wi-Fi

Wireless technology enabling data links in a limited area, generally in some hundred meters range, with speed up to tens of Mbps. Typical applications are in homes and offices as alternative to wired LAN, as well as in public services for Internet access, and also to create link between devices (e.g. between a laptop and a smartphone linked to Internet).

Wi – Max (Worldwide Interoperability for Microwave Access)

A technology that allows wireless access to broadband telecommunications networks, initially defined in order to work on ranges up to tens of kilometers and speed in the tens of Mbps.. It was defined by the Wi—MAX Forum, a global consortium formed in 2001 that brings together major companies in the field of fixed and mobile telecommunications and whose purpose is to develop, test and promote the interoperability of systems based on IEEE standards.

WDM (Wavelenght Division Multiplexing)

Technology by means of which it is possible to transport on a single optical fiber different flows of information which correspond to distinct and separable wavelengths.

WLL (Wireless Local Loop)

The means of providing a local loop equivalent (e.g. connection from customer premises to local exchange) without the use of wiring, resorting instead to wireless technologies.

WLR (Wholesale Line Rental)

It is a telephony only wholesale service provided by the incumbent to alternative operators, whereby the alternative operator gets an ULL-like service without the need to physically deploy equipment at local exchange sites. It is technically similar to Carrier PreSelection (CPS),and differs from CPS on the commercial side since the end customer is not subscribed to the incumbent's access service, nor billed for it; in this way alternative operators are able to provide to customers both access and traffic services and to produce a single bill covering both services.

WTTX (Wireless To The X)

WTTx is a 4G and 4.5G-based broadband access solution, which uses wireless to provide fiber-like broadband access for household.

xDSL (Digital Subscriber Line)

It is a technology that makes use of standard telephone lines and it includes different categories including ADSL (Asymmetric DSL), HDSL (High-data-rate DSL), VDSL (Very high bit rate DSL) and eVDSL (enhanced Very high bit rate DSL). This technology uses a digital signal at very high frequencies in order to achieve high data transfer rates.

XGS-PON

XGS-PON is an updated standard for Passive Optical Networks (PON) that can support higher speed 10 Gbps symmetrical data transfer and is part of the family of standards known as Gigabit-capable PON, or G-PON.

USEFUL INFORMATION

The 2021 Annual Financial Report is available online at gruppotim.it/report/ita and gruppotim.it/report/eng gruppotim.it/report.

The Annual Corporate Governance Report and the Remuneration Report can be viewed by respectively accessing: gruppotim.it/governance/il-sistema/relazione-annuale e gruppotim.it/governance/remunerazione/relazione-remunerazione.

Information on TIM is also available at
gruppotim.it and information on products and services at tim.it.

Finally, the following numbers are available:

Free Number 800.020.220 (for calls from Italy) or +39 011 2293603 (for calls from abroad) available for information and assistance to shareholders

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