USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE REPUBLIC OF SERBIA, 2017

HOUSEHOLDS/INDIVIDUALS
ENTERPRISES

Be`gradY, 201+

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Usage of information and communication technologies in the Republic of Serbia, 2017

INTRODUCTION

Modern society has become "information society" with the development and usage of information and communication technologies, which, as its main characteristic, plays the most important part in production, the economy and all other spheres in the life of individuals and the society as a whole.

Aware of the significance of those technologies, the Statistical Office of the Republic of Serbia carried out in 2004 a pilot survey on the usage of information and communication technologies in organisations dealing with financial and insurance activities. This undertaking was primarily meant to test and prepare the methodologies and instruments for the implementation of similar regular surveys related to households and the economy.

In the previous eleven years, the Statistical Office of the Republic of Serbia conducted two surveys on the usage of information and communication technologies. The first one referred to households and individuals, and the second included also enterprises.

Both surveys were carried out on the territory of the Republic of Serbia also in 2017 based on EUROSTAT methodology. Data for the Republic of Serbia exclude those for AP Kosovo and Metohija.

As for households and individuals, the three months preceeding the telephone interview were taken to be the reference period, which was, for most of the questions asked to enterprises, January 2017, while selected ones referred to the entire 2016.

The survey for households was carried out on a two-stage sample, which was stratified according to the criterion on urban characteristics. The sample was allocated to the territories of Central Serbia (excluding Belgrade), AP Vojvodina and Belgrade, proportionally to the number of households. It included 2800 households and 2800 individuals. The interview was done both by telephone and indirectly (answers given by another person other than the absent one).

The survey for enterprises was carried out on a sample stratified by size classes and activities, through telephone interview. The sample covered 1655 enterprises.

The Statistical Office of the Republic of Serbia is hopeful that this publication will provide the users enough information on the current situation in information and communication technologies, which will serve as the basis for further development.

Introduction

Part I
Usage of information and communication technologies in households/by individuals in the Republic of Serbia, 2017

Part II
Usage of information and communication technologies in enterprises in the Republic of Serbia, 2017

Glossary

GRAPHS

Part I
Usage of information and communication technologies in households/by individuals in the Republic of Serbia, 2017

1.33. How often have you bought/ordered goods or services over the Internet, for private purposes, in the last three months?

1.34. How much have you spent when buying/ordering goods or services over the Internet for private purposes, in the last three months?

1.35. Did you use any of the following cloud services to store information (documents, photos, music and video files): Google drive, Dropbox, Windows Skydrive, iCloud?

1.36. Which of the following computer or mobile device related activities have you carried out in the last 12 months?

1.37. Which ICT activities have you carried out in the last 12 months?

Part II
Usage of information and communication technologies in enterprises in the Republic of Serbia, 2017

2.1. Does your enterprise use computers for business purposes?

2.2. Enterprises by the percentage of employees using a computer at least once a week

2.3. Did your enterprise use open-source operating system Linux?

2.4. Does your enterprise exchange regularly information electronically in supply chain management with its suppliers or customers?

2.5. Does your enterprise have access to the Internet?

2.6. Enterprises by the percentage of employees using the Internet at least once a week

2.7. Broadband Internet connection in enterprises

2.8. What is the maximum contracted speed of the Internet connection in your enterprise?

2.9. Are fixed connection(s) to the Internet sufficient for business needs?

2.10. Does your enterprise use a mobile broadband Internet connection (3G or 4G) using portable devices?

2.11. Enterprises by the percentage of employees using portable devices for business purposes?

2.12. Does your enterprise have a website?

2.13. Does your enterprise provide any of the following services via its website?

2.14. Did your enterprise order goods/services over the Internet?

2.15. Did your enterprise receive orders over the Internet?

2.16. Percentage of the total turnover in 2016 resulting from orders received over the Internet

2.17. Did your enterprise use any of the following social media for business purposes?

2.18. Does your enterprise pay cloud computing services over the Internet?

USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE REPUBLIC OF SERBIA, 2017

HOUSEHOLDS/INDIVIDUALS

1.1. METHODOLOGY

Survey period	• The survey was carried out from 18th of April 2017 to 28th of April 2017
Type of survey	• Telephone interview
Sample size	• 2800 households • 2800 individuals
Target population	• For households: all households with at least one member aged between 16 and 74 • For individuals: all individuals aged between 16 and 74
Type of sample	• Two-stage, stratified sample
Geographic scope	• Territory of the Republic of Serbia (without AP Kosovo and Metohija)

1.2. SAMPLE

The survey on ICT usage in households was conducted on a representative sample of 2800 households on the territory of the Republic of Serbia. The response rate was 98.5% (2759 households).

Households

Sample (households)	Income			Region			Type of households		Total
	Up to 300 euros	300 - 600 euros	More than 600 euros	Central Serbia	Vojvodina	Belgrade	Urban	Other	
Number	1200	813	413	1303	773	683	1719	1040	2759
%	49.5	33.5	17.0	47.2	28.0	24.8	62.3	37.7	100

The same sample was used for persons aged between 16 and 74 living on the territory of the Republic of Serbia. The response rate was 98.5% (2759 persons).

Individuals

Sample (individuals)	Age						Sex		Educational level			Employment situation				Total
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Man	Woman	Lower than secondary	Secondary	Tertiary	Employee	Unemployed	Student	Other	
Number	151	231	329	432	654	962	996	1763	533	1424	802	836	596	81	1246	2759
%	5.5	8.4	11.9	15.7	23.7	34.9	36.1	63.9	19.3	51.6	29.1	30.3	21.6	2.9	45.2	100

1.3. MAIN FINDINGS

1.3.1. Devices available in households

Households were offered to give more than one answers to the question relative to the devices available in households. The survey shows that 99.6% of households have a TV set and 58.4% cable TV.

> 90.5% of households have a mobile phone

There are 43.7% of households that have a laptop, which is an increase of 4.5% and 4.7% in relation to 2016 and 2015, respectively.

Graph 1.1. Devices available in households
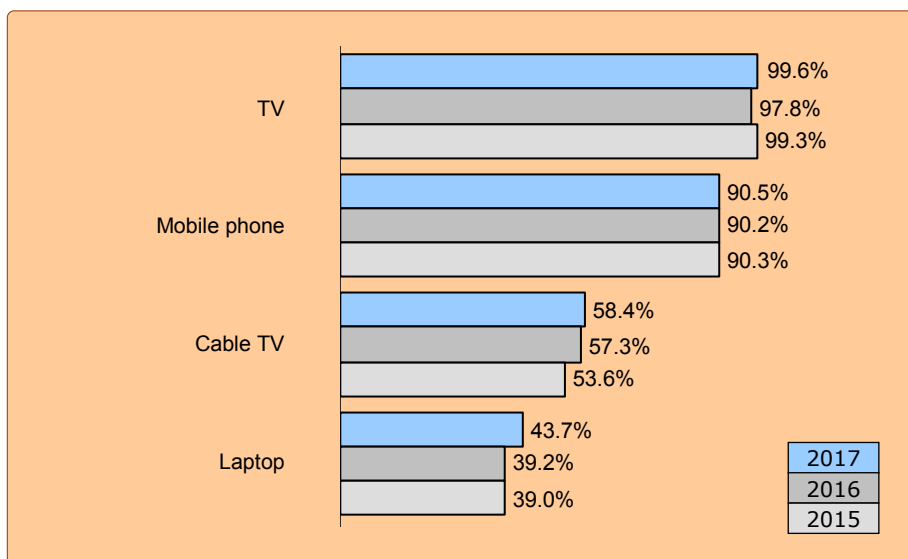
1.3.2. Computers in households

The main findings of the survey show that 68.1% of households in the Republic of Serbia have a computer, which is an increase of 2.3% and 3.7% in relation to 2016 and 2015, respectively. The percentage of computers in households varies as to the territory: in Belgrade it amounts to 77.8%, in Vojvodina 66.2%, and in Central Serbia 65.3%.

> 68.1% of households have a computer

Graph 1.2. Computers in households
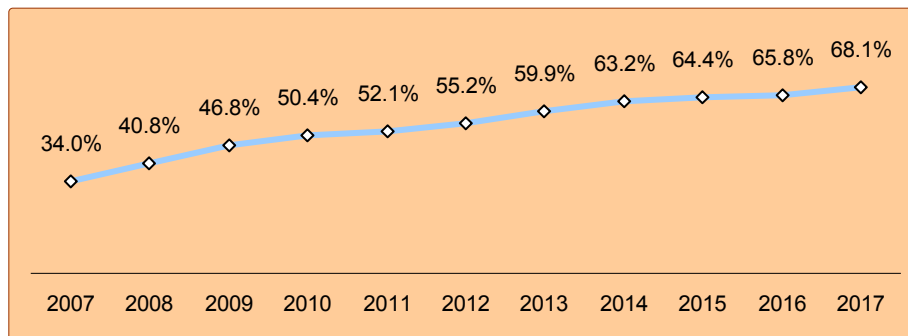
Most of the households have one computer (52.0%), while 45.0% have two computers.

Graph 1.3. Number of computers in households
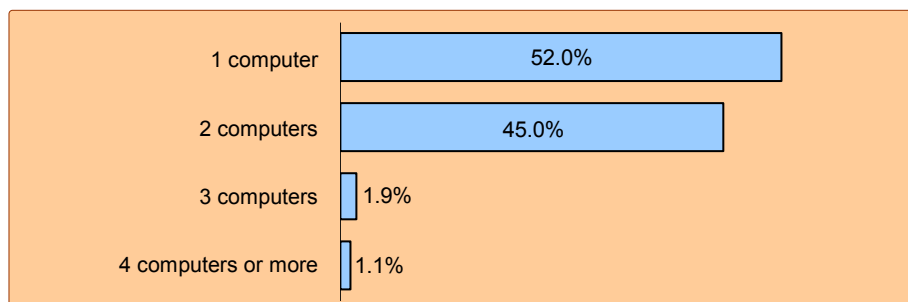
The differences are also visible when comparing the availability of computers in urban and other areas of Serbia: 73.5% versus 60.7%. In relation to 2016, this gap has significantly decreased, which is backed by growth rates of computer availability in urban and other parts of Serbia. The growth rate in the urban part of Serbia is 0.2%, and in the other areas it amounts to 6.7%, when compared to 2016.

Graph 1.4. Percentage of households having a computer, by type of settlement
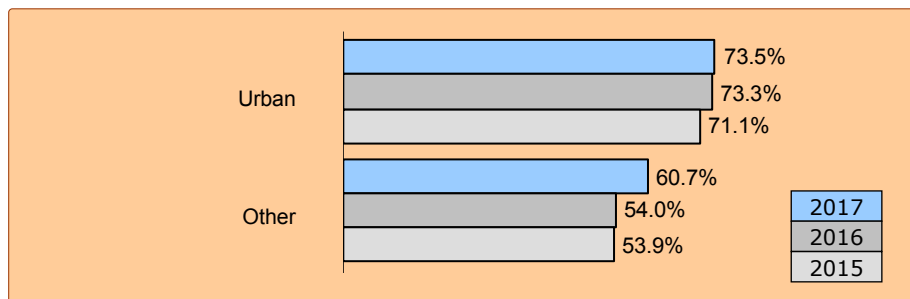
However, the structure of households classified by monthly income is expressive of the greatest gap as to the availability of computers in households. Computers are mostly available in households with a monthly income of more than 600 euros (95.1%) while in households with an income up to 300 euros there are 49.7% of them.

When comparing with data for 2016, growth rates in certain income classes for 2017 indicate that the above mentioned gap decreased, when compared to the previous year. The growth rate for households with an income of more than 600 euros amounts to 0.1%, while for households with an income of 300 – 600 euros it recorded a decrease of 4.9%, in relation to 2016. The growth rate for households with an income of less than 300 euros amounts to 2.6%.

> 49.7% of households with an income of up to 300 euros have a computer

Graph 1.5. Percentage of households having a computer, by income level
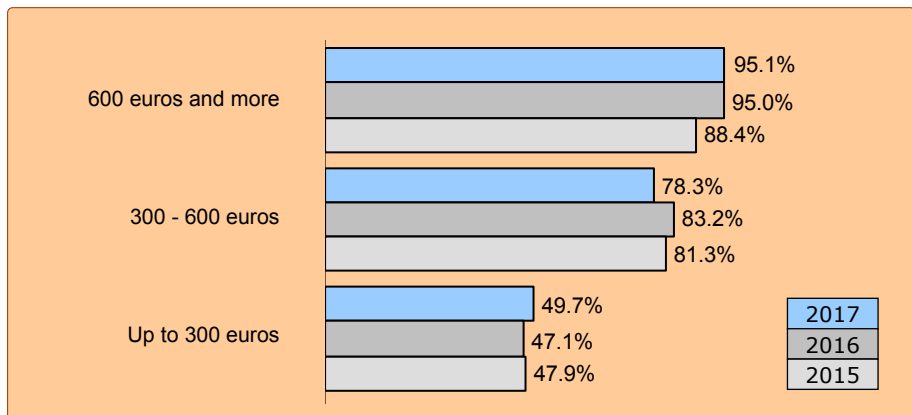
1.3.3. Internet in households

In the Republic of Serbia 68.0% of households have an Internet connection, which is an increase of 3.3% and 4.2%, when compared to 2016 and 2015, respectively.

> 68.0% of households have an Internet connection

Graph 1.6. Does the household have access to the Internet at home?
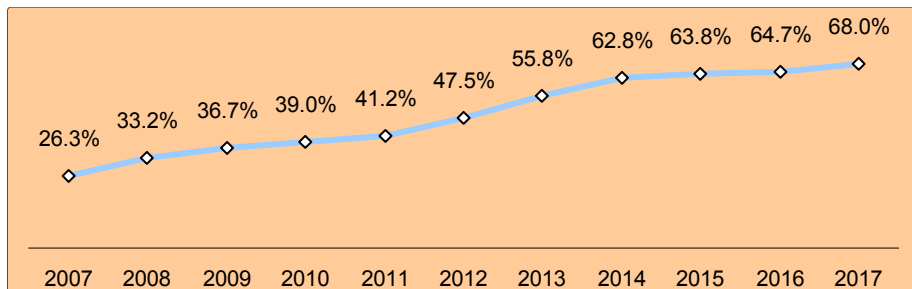
The highest percentage of Internet connection availability was observed in Belgrade (77.5%), in Vojvodina (68.7%), and in Central Serbia (63.8%).

Graph 1.7. Households having an Internet connection, by type of settlement
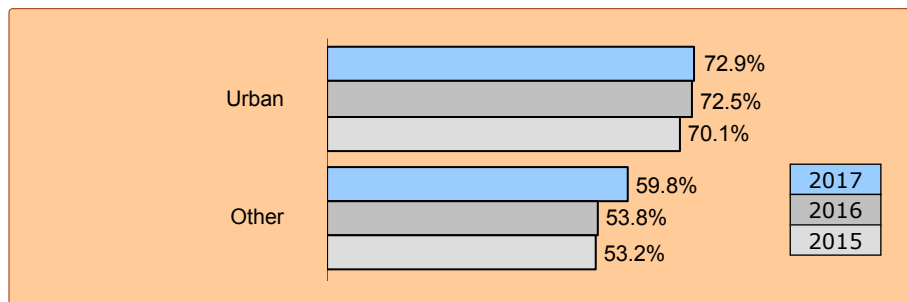
There are also considerable differences as to the percentage of Internet connection in urban and other parts of Serbia: 72.9% versus 59.8%. When compared to 2016, the results indicate that the gap diminished. The growth rate in the urban part of Serbia is 0.4% and in the rural part 6.0%.

In the same way as in computer availability in households, a large gap as regard the Internet connection appears when observing the structure of households according to their monthly income level. The internet connection is mostly used by households whose monthly income exceeds 600 euros (96.8%), while only 48.4% of households with an income under 300 euros are connected to the Internet.

> 48.4% of households with an income up to 300 euros have an Internet connection

Graph 1.8. Households having an Internet connection, by income level
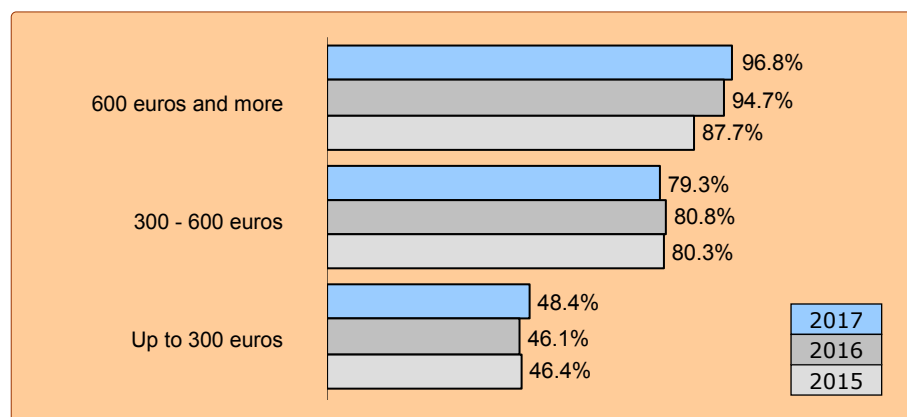
As regard the reasons for not having an Internet connection at home, 70.0% of households said that they don't need the internet, 24.4% indicated that equipment costs were too high, while 22.8% of households mentioned the lack of skills.

Graph 1.9. Reasons of households for not having an Internet connection at home
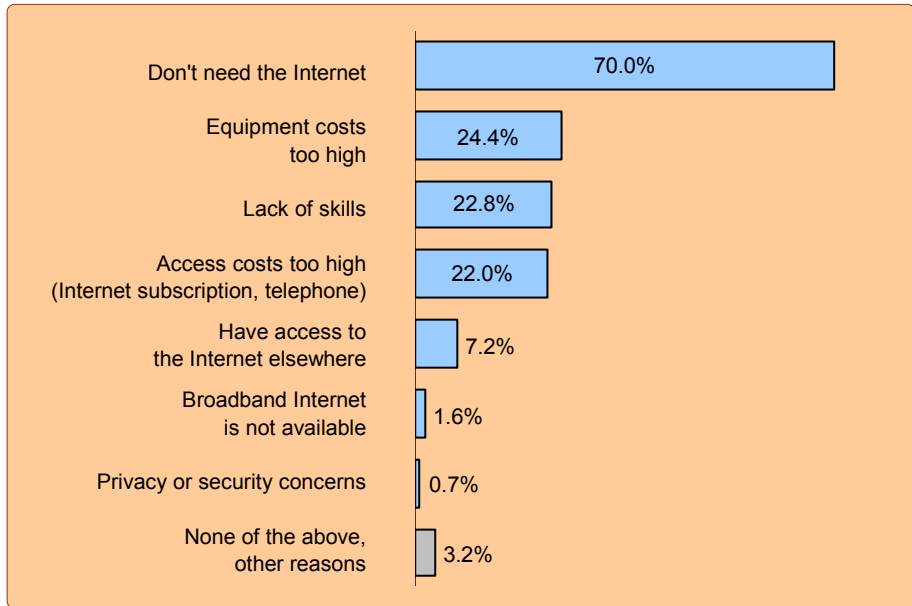
Households were offered several answers to the question relative to the type of connection used to access the Internet. The obtained results show that of the total number of households having an Internet connection, 48.7% have DSL (ADSL), 42.8% cable Internet, and 53.6% use mobile connection via 3G network.

> 48.7% of households having an Internet connection use DSL (ADSL)

The results of the survey indicate that 1.2% of households have a dial-up connection. This is principally the result of an increased use of broadband connections.

Graph 1.10. Type of Internet connection

Mobile phone (Tablet)
(via 3G network)
- 53.6%
- 46.6%
- 18.7%

DSL (ADSL)
- 48.7%
- 45.5%
- 51.3%

Cable Internet
- 42.8%
- 45.3%
- 37.9%

Mobile phone (via GPRS)
- 16.0%
- 11.5%
- 20.4%

Legend: 2017, 2016, 2015
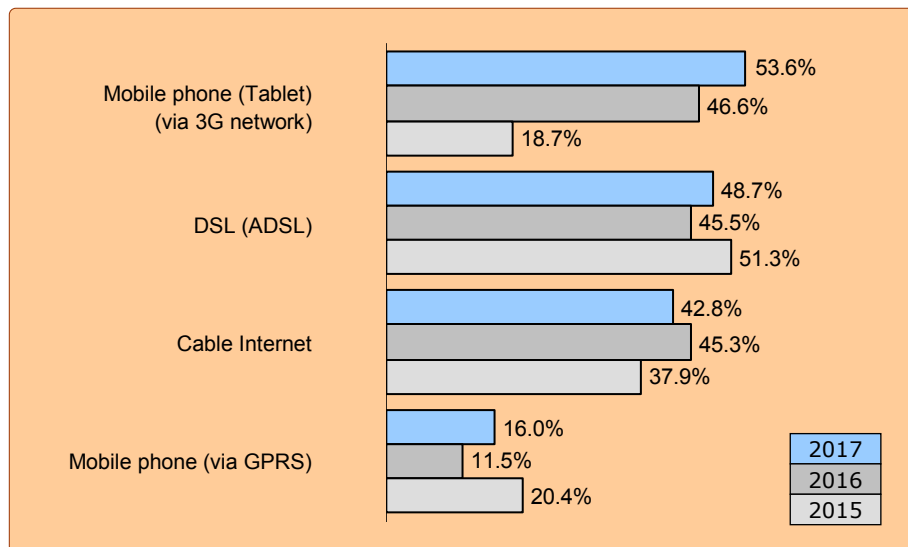
61.9% of households in Serbia have a broadband Internet connection

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The broadband Internet connection, besides providing faster access, changes the entire way of using the Internet since it allows quicker download of information compared to the classic dial-up modem connection. Accordingly, from 2005 the percentage of households having this type of Internet connection is taken to be one of the main indicators of ICT development in the European Union. In Serbia, 61.9% of households have a broadband connection, which is an increase of 4.1% and 5.9% in relation to 2016 and 2015, respectively. This type of Internet connection is most used in Belgrade (72.7%), in Vojvodina (61.1%), and the least in Central Serbia (58.0%).

Graph 1.11. Broadband Internet connection in households

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
15.5%	22.9%	27.6%	31.0%	38.0%	43.4%	55.1%	56.0%	57.8%	61.9%
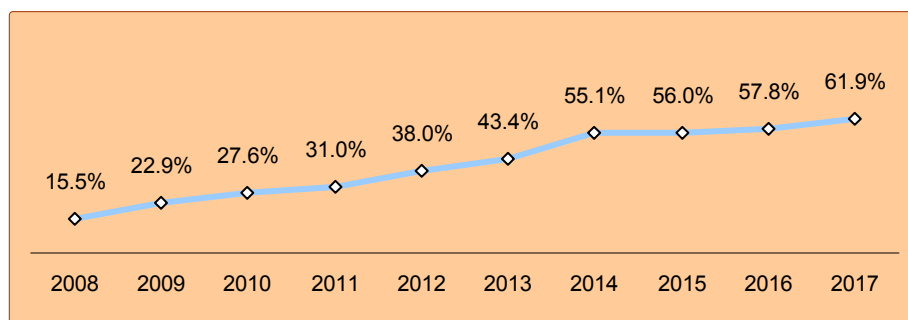
Broadband Internet connection is mostly available in households with a monthly income exceeding 600 euros (90.6%), while the percentage of those with an income under 300 euros is 42.9%.

Large differences are also observed when comparing the use of this type of Internet connection in rural and other parts of Serbia: 67.5% versus 52.3%.

Graph 1.12. Broadband Internet connection in households, by territory
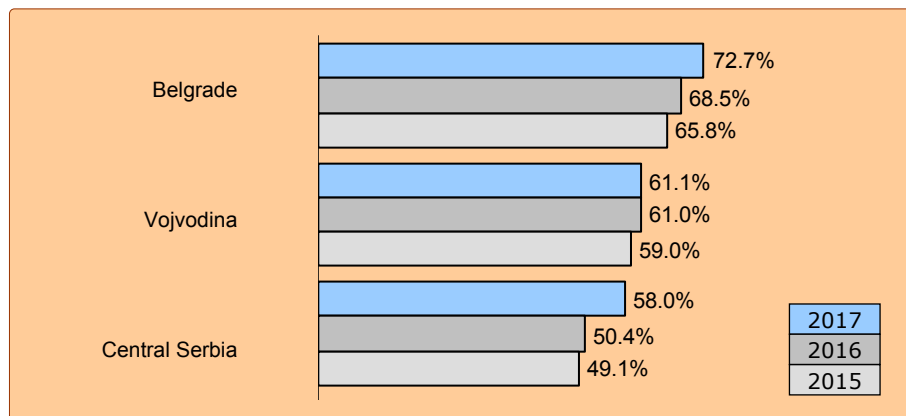
1.3.4. Individuals: use of computers

In the Republic of Serbia, 67.7% of individuals used a computer in the last three months, 1.3% more than three months ago, and 4.9% more than one year ago. There are even 26.1% of individuals who have never used a computer. The number of computer users increased by 1.1%, 2.6% and 3.6% in relation to 2016, 2015 and 2014, respectively.

The number of computer users increased by 1.1% in relation to 2016

When compared with 2016, the number of individuals who have used a computer in the last three months increased by rather 10 000.

More than 3 616 000 persons used a computer in the last three months

The percentage of computer users (in the last three months), according to educational level:

- 88.4% of persons with tertiary educational level;
- 77.5% of persons with secondary educational level;
- 37.7% of persons with lower than secondary educational level.

Graph 1.13. When did you last use a computer?
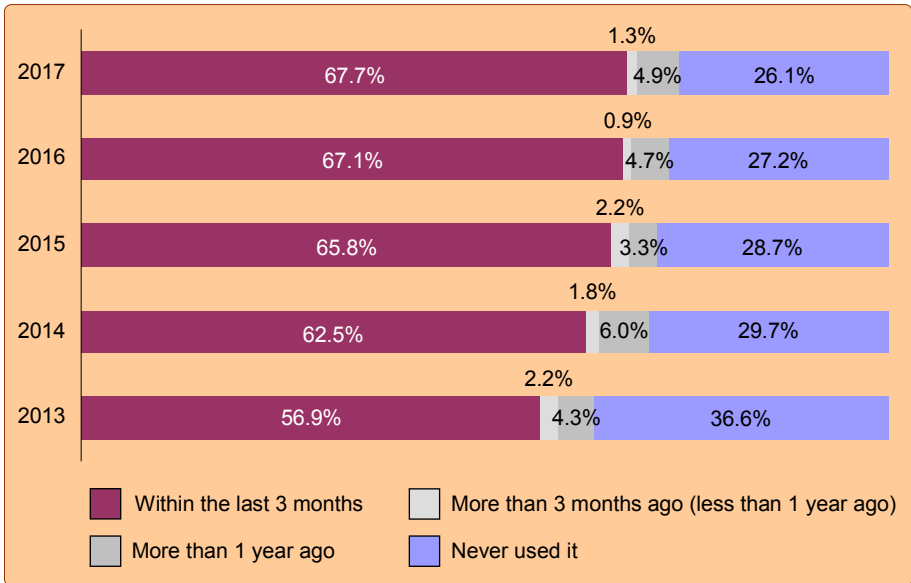
Graph 1.14. Percentage of computer users (in the last three months), by educational level
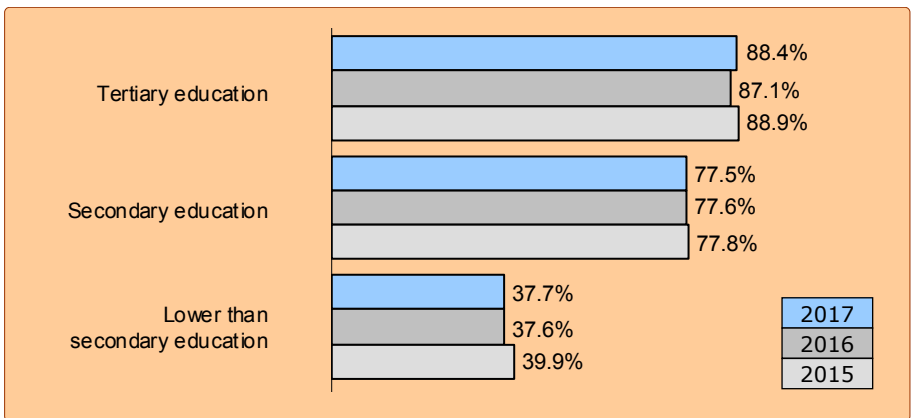
Among computer users, 61.3% have secondary educational level, 16.2% lower than secondary educational level, and 22.5% tertiary educational level.

Graph 1.15. Educational structure of computer users

Lower than secondary education 16.2%

Tertiary education 22.5%

Secondary education 61.3%
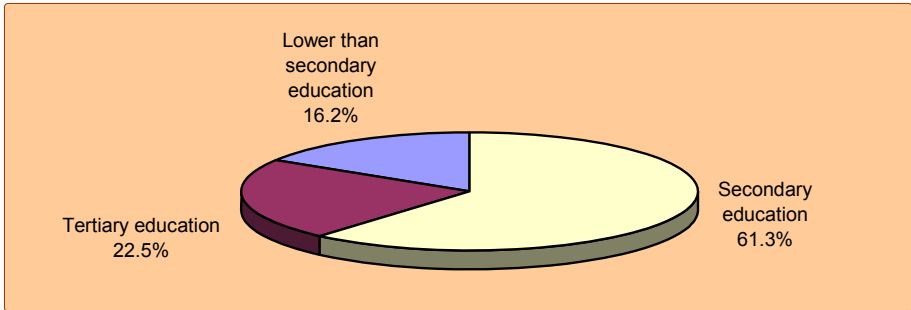
Percentage of computer users (in the last three months), by employment situation:

- 98.1% of students;
- 86.6% of employees;
- 64.9% of unemployed persons;
- 34.3% of others (retired, compulsory military service, etc.).

Graph 1.16. Percentage of computer users (in the last three months), by employment situation

	2017	2016	2015
Student	98.1%	100.0%	99.1%
Employee	86.6%	89.7%	91.3%
Unemployed	64.9%	65.7%	65.3%
Other	34.3%	34.4%	33.2%
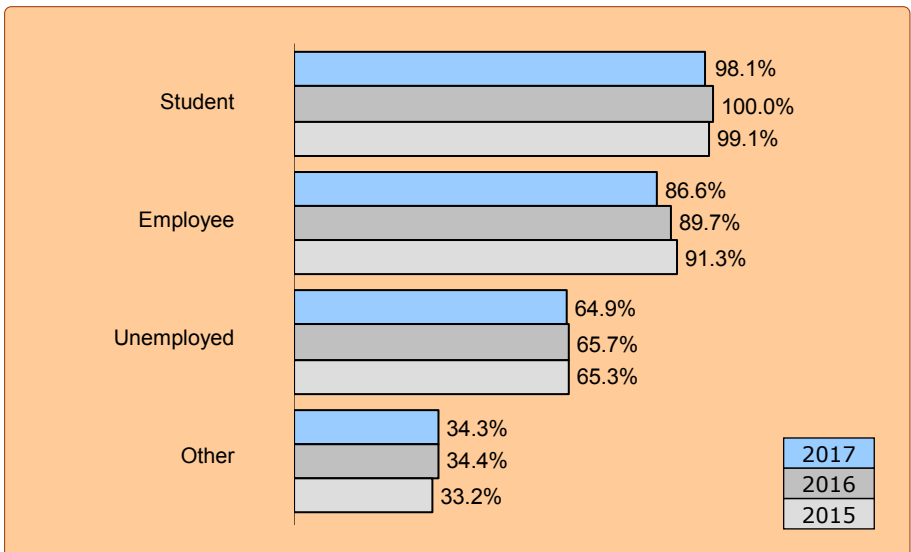
The analysis of the respondents by sex indicates that in the last three months 72.2% of men and 63.4% of women have used a computer.

Graph 1.17. Use of computers (in the last three months), by sex and age
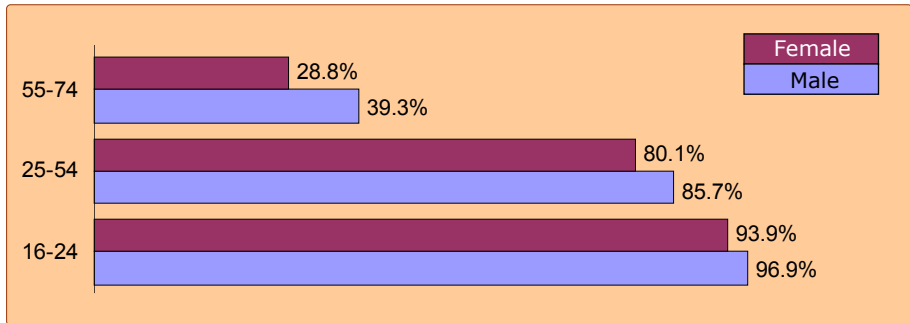
When asked how often, on average, the respondents have used a computer in the last three months, 86.4% said having used a computer every day or almost every day, 7.1% at least once a week, 4.9% at least once a month, and 1.6% less than once a month

More than 3 120 000 persons use a computer every day or almost every day

When compared with 2016, the number of individuals who used a computer every day or almost every day increased by some 50 000.

Graph 1.18. How often, on average, have you used a computer in the last three months?
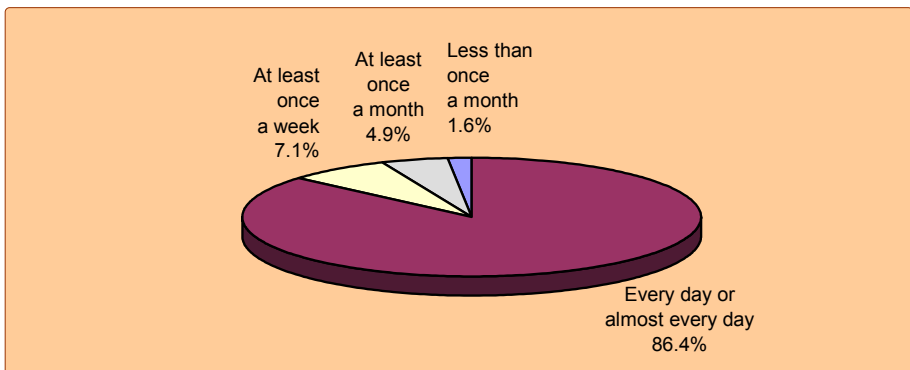
1.3.5. Individuals: use of mobile phones

The survey indicates that 92.6% of individuals use a mobile phone, while in 2016 the percentage was 91.8%.

> More than 4 946 000 persons use a mobile phone

Graph 1.19. Use of mobile phones

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
76.8%	81.0%	82.3%	82.7%	85.3%	85.8%	87.0%	90.6%	91.4%	91.8%	92.6%
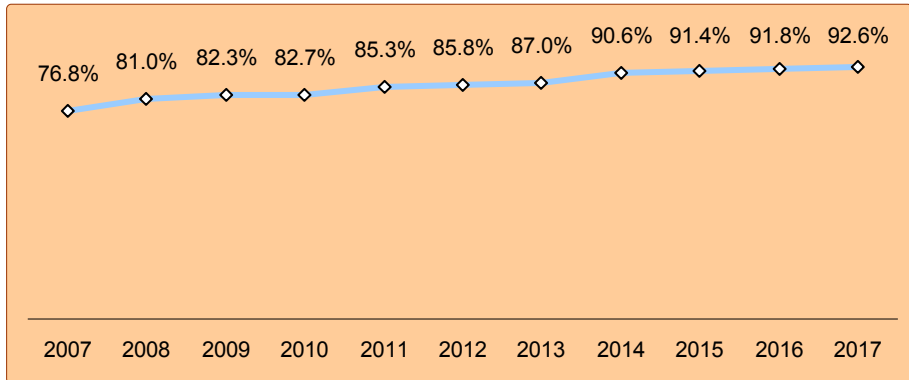
Graph 1.20. Use of mobile phones, by sex and age

Female
Male

	Female	Male
55-74	81.2%	84.2%
25-54	98.4%	97.3%
16-24	97.2%	98.6%

1.3.6. Individuals: use of the Internet

In the Republic of Serbia, 70.5% of persons have used the Internet in the last three months, 1.6% of respondents used the Internet more than 3 months ago, and 2.3% more than one year ago. There were 25.6% of respondents that had never used the Internet.

The number of Internet users increased by 3.6%, 5.0% and 7.5% in relation with 2016, 2015, 2014, respectively.

> The number of Internet users increased by 3.6% in relation to 2016

Graph 1.21. When did you last use the Internet?

	Within the last 3 months	More than 3 months ago (less than 1 year ago)	More than 1 year ago	Never used it
2017	70.5%	1.6%	2.3%	25.6%
2016	67.1%	1.6%	2.2%	29.2%
2015	65.3%	1.0%	3.1%	30.6%
2014	62.1%	1.9%	2.9%	33.1%
2013	53.5%	2.7%	2.3%	41.5%
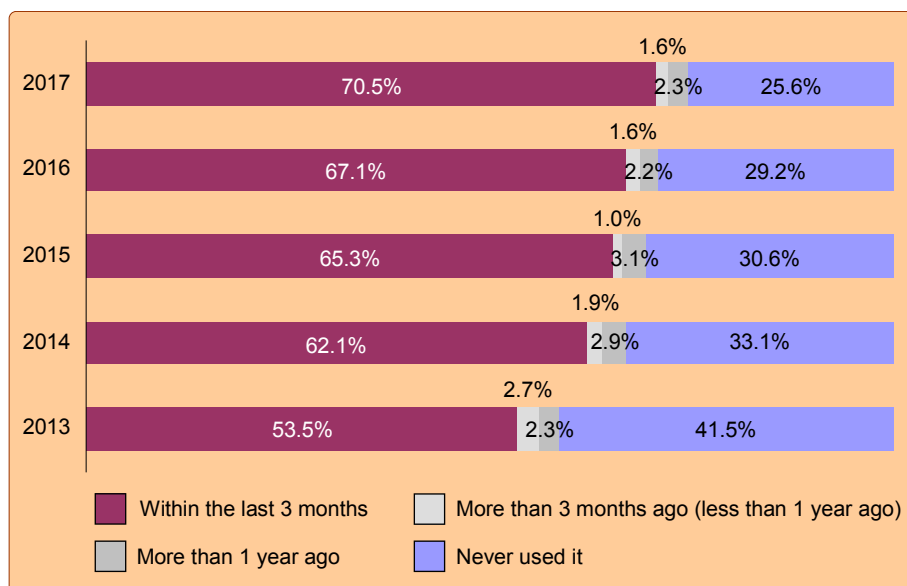
> More than 3 750 000 persons have used the Internet in the last three months

When compared with 2016, the number of persons who have used the Internet in the last three months increased by rather 140 000.

The percentage of Internet users (in the last three months), by educational level:

- 89.9% of persons with tertiary educational level;
- 80.0% of persons with secondary educational level;
- 41.3% of persons with lower than secondary educational level.

**Graph 1.22. Percentage of Internet users (in the last three months),
by educational level**

Tertiary education: 89.9% (2017), 87.5% (2016), 87.8% (2015)

Secondary education: 80.0% (2017), 78.1% (2016), 78.2% (2015)

Lower than secondary education: 41.3% (2017), 36.1% (2016), 38.2% (2015)

2017
2016
2015
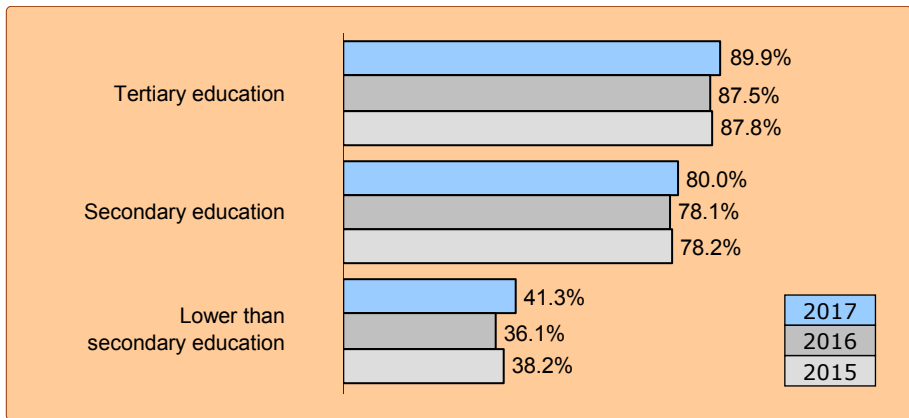
Among Internet users, 61.1% attained secondary educational level, 17.0% of users attained lower than secondary educational level, and 21.9% tertiary educational level

Graph 1.23. Educational structure of Internet users

Tertiary education 21.9%

Lower than secondary education 17.0%

Secondary education 61.1%
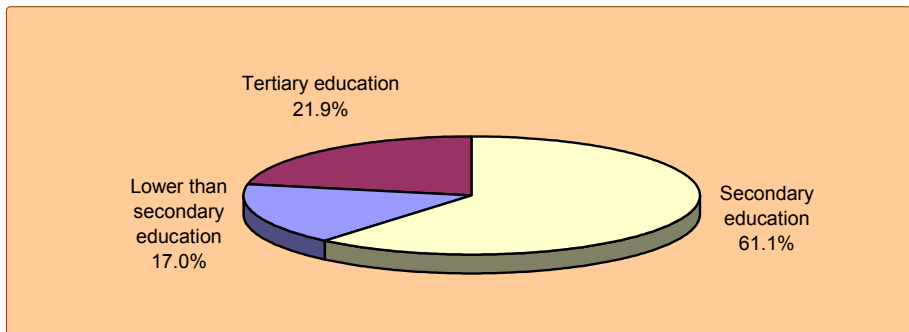
Percentage of Internet users (in the last three months), by employment situation:

- 99.8% of students;
- 89.5% of employees;
- 68.7% of unemployed persons;
- 35.9% of others (retired, compulsory military service, etc.).

**Graph 1.24. Percentage of Internet users (in the last three months),
by employment status**
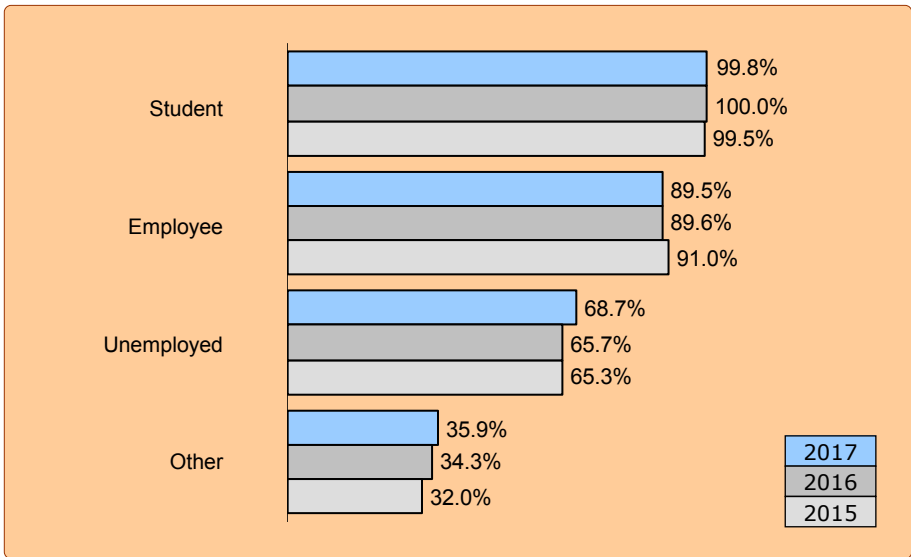
When asked how often on average they have used the Internet in the last three months, 88.2% of respondents said having used it every day or almost every day.

More than 3 300 000 persons use the Internet every day or almost every day

Compared to 2016, the number of persons who used the Internet every day or almost every day increased by some 200 000.

**Graph 1.25. How often, on average, have you used the Internet
in the last three months?**
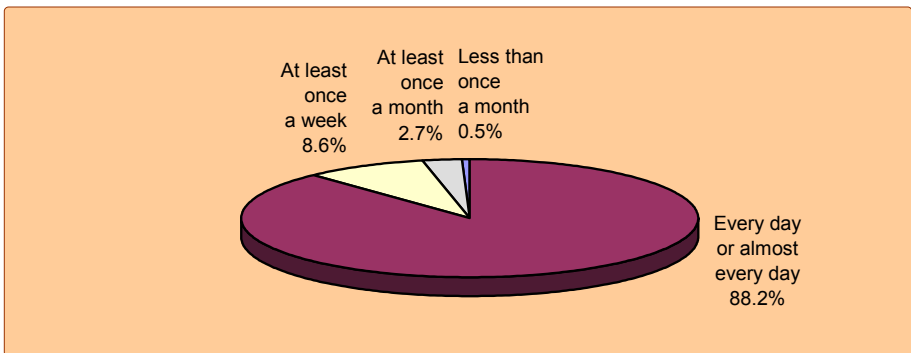
Graph 1.26. Use of the Internet (in the last three months), by sex and age
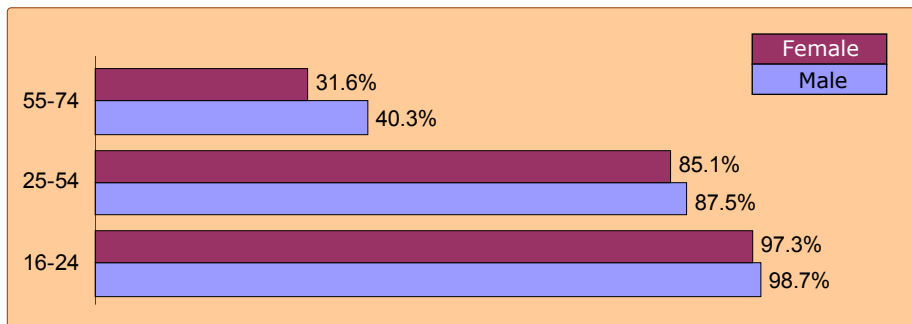
The analysis of respondents by sex indicates that 73.7% of men and 67.4% of women have used the Internet in the last three months.

In the last three months the respondents have used the Internet mostly for reading online newspapers and news magazines (75.6%), finding information about goods or services (75.5%) as well as for participating in social networks such as Facebook and Twitter (67.8%).

Graph 1.27. Types of Internet use (for private purposes) in the last three months
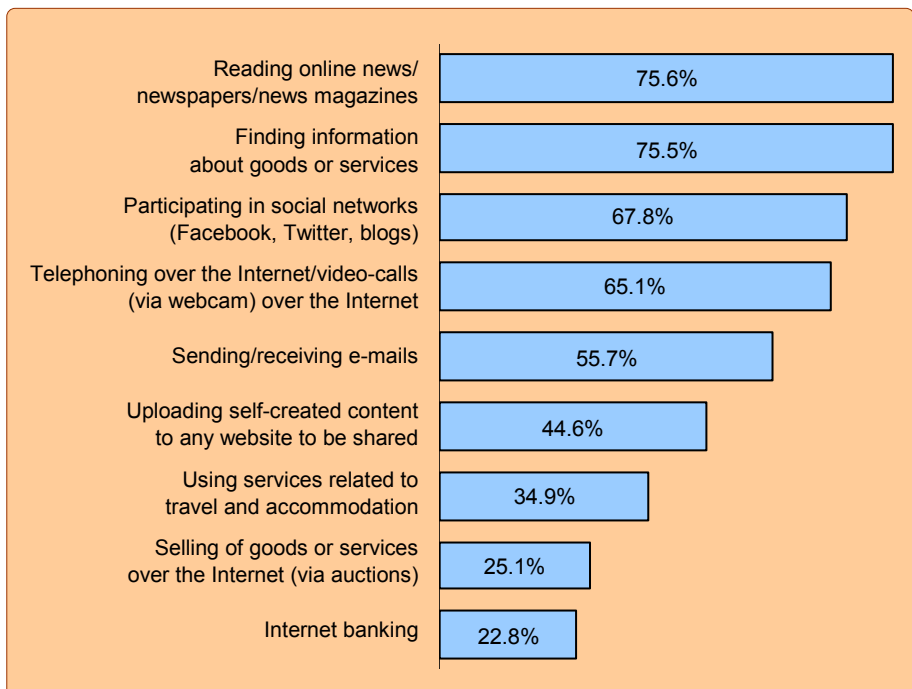
90.6% of Internet population aged from 16 to 24 have an account on social networks (Facebook,Twitter)

Graph 1.28. Do you use any of the following mobile devices to access the Internet away from home or place of work?

Device	Percentage
Mobile phone (smartphone)	73.7%
Mobile phone via wireless network (WiFi)	61.6%
Mobile phone via GPRS or 3G network	54.5%
Potable computer (laptop ili tablet)	21.7%
Laptop or tablet via wireless network (WiFi)	20.1%
Laptop or tablet via USB key or SIM card	6.7%
Other devices	3.3%
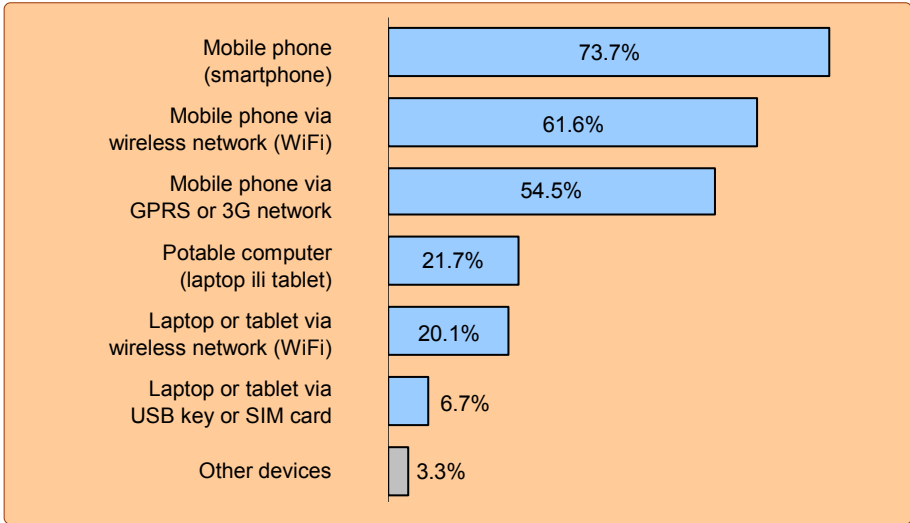
1.3.7. e-government

The survey indicates that 32.0% of Internet users use the Internet instead of personal contacts or visits to public authorities.

> More than 1 270 000 persons use public authorities' electronic services

Graph 1.29. For which of the following public authorities' services did you use the Internet?

Service	Percentage
Obtaining information from websites of public institutions	31.3%
Downloading	20.2%
Submitting completed forms	16.8%
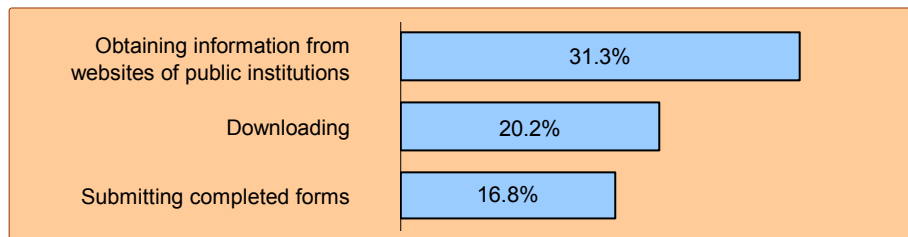
The survey indicates that 31.3% of Internet users who used public authorities' services over the Internet for obtaining information from public authorities' websites, and 20.2% to download official forms.

Graph 1.30. Reasons for not having submitted completed forms to public authorities over the Internet

Reason	Percentage
No need to submit completed forms	74.0%
Lack of skills	6.8%
Another person did it on my behalf	4.8%
Concerns about security and protection of personal data	4.3%
There were no such services on the website	1.8%
Lack of electronic signature or identification	0.7%
Other reasons	9.1%
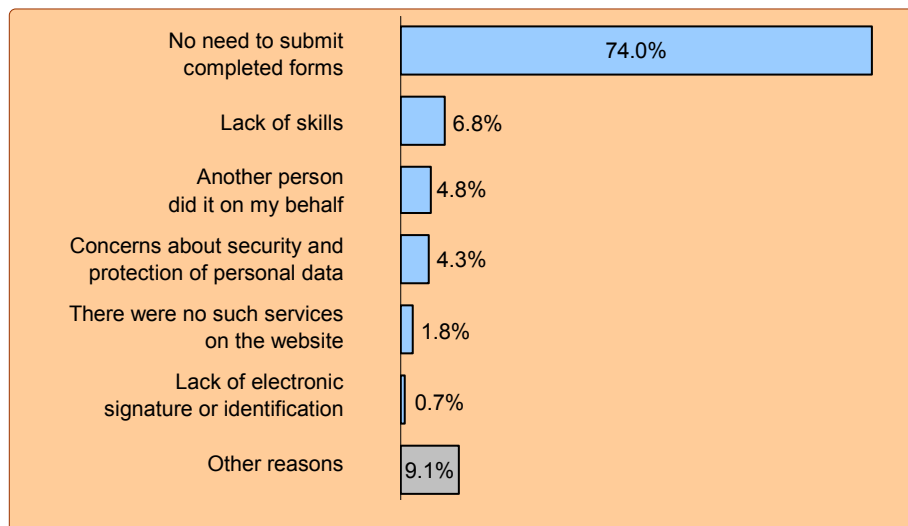
1.3.8. e-commerce

As regard the period when Internet users have bought/ordered goods or services via the Internet, 28.3% of users have bought/ordered goods/services in the last three months, 13.0% did it more than three months ago, and 8.8% more than a year ago.

49.9% of Internet users have never bought/ordered goods or services over the Internet.

> More than 1 630 000 persons have bought or ordered goods/services over the Internet in the last 12 months

Graph 1.31. When did you last (for private purposes) buy/order goods or services over the Internet?
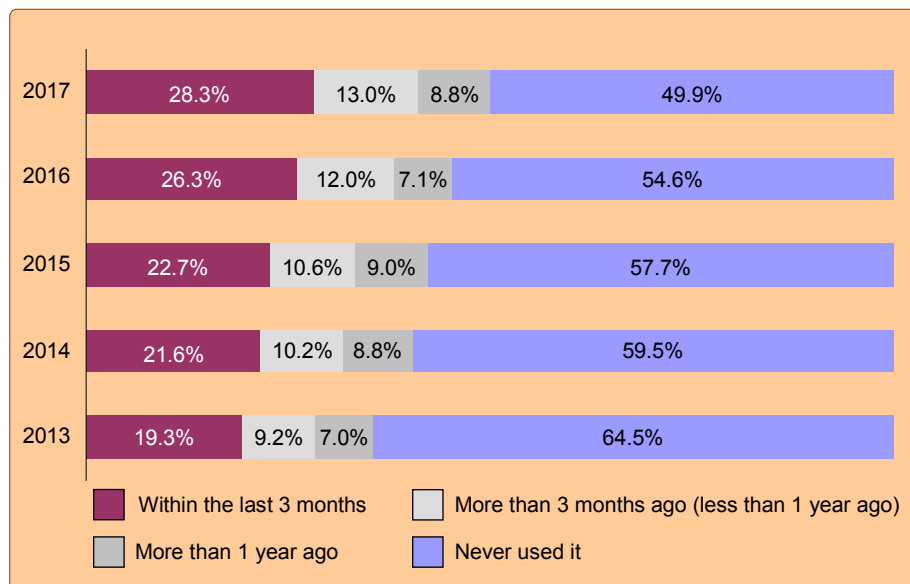
Compared to 2016, the number of individuals that bought or ordered goods/services over the Internet increased by some 180 000.

Graph 1.32. Which of the following goods or services have you ordered (for private purposes) over the Internet in the last 12 months?

Category	Percentage
Clothes, sports goods	58.2%
Household goods (furniture, toys...)	21.7%
Electronic equipment (incl. cameras)	20.1%
Computer hardware	12.4%
Games and upgrades	12.0%
Other travel arrangements (transport tickets, car hire...)	8.5%
Holiday accommodation (hotel...)	7.9%
Pharmaceutical products	6.6%
Tickets for cultural events	4.7%
Books/magazines/newspapers	2.0%
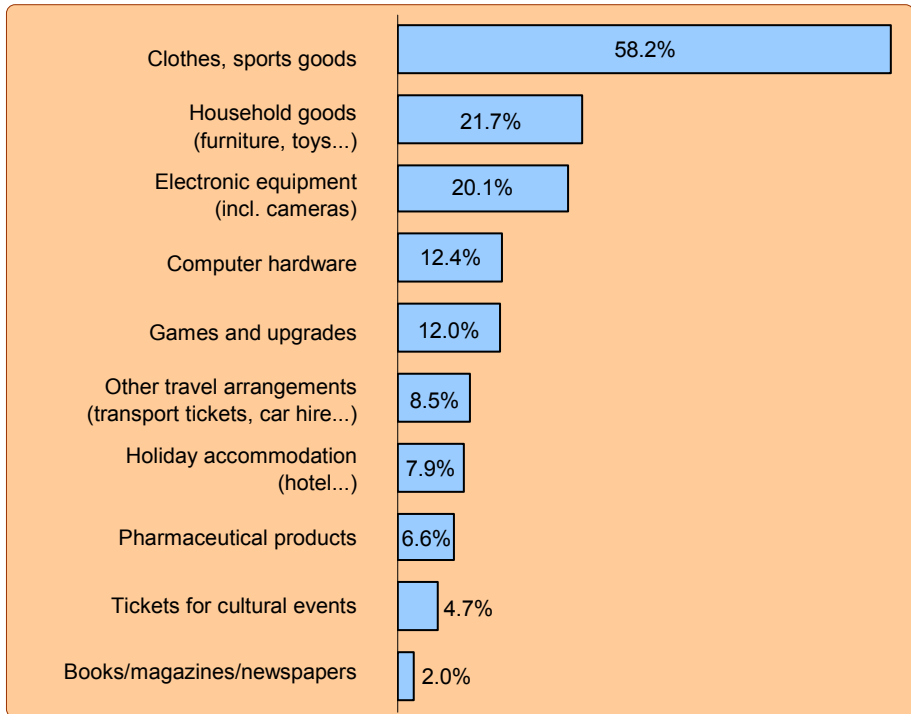
Most of the Internet users bought/ordered clothes and sport goods (58.2%) and household goods (21.7%).

Graph 1.33. How often have you bought/ordered goods or services over the Internet, for private purposes, in the last three months?

- More than 10 times 5.1%
- 6-10 times 5.6%
- 3-5 times 31.6%
- 1-2 times 57.7%

Graph 1.34. How much have you spent when buying/ordering goods or services over the Internet for private purposes, in the last three months?

Category	Percentage
Less than 50 euros	47.7%
From 50 to 100 euros	25.3%
From 100 to 500 euros	17.2%
From 500 to 1000 euros	3.2%
More than 1000 euros	2.6%
Don't know	4.0%
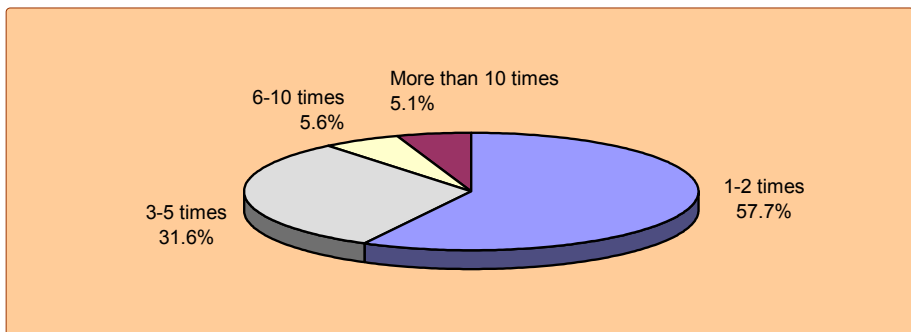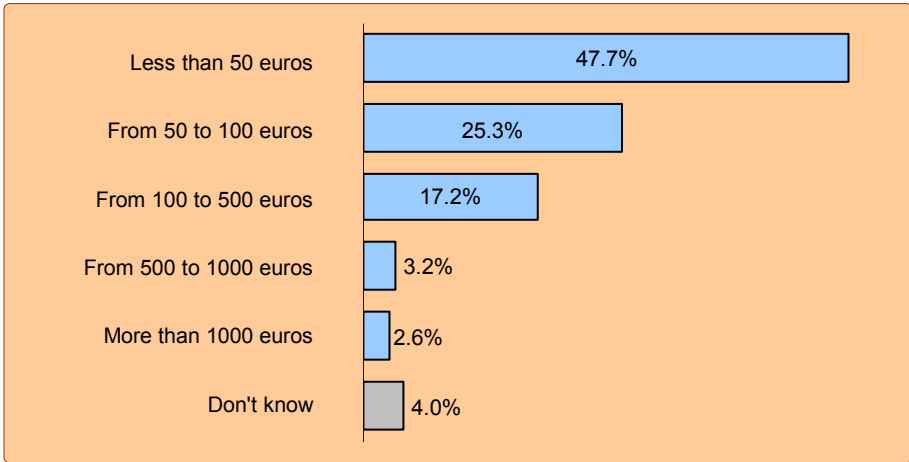
1.3.9. Use of cloud services

The survey indicates that 19.5% of Internet population used cloud services to store or share information.

Graph 1.35. Did you use any of the following cloud services to store information (documents, photos, music and video files): Google drive, Dropbox, Windows Skydrive, iCloud?

	YES	NO
January	19.5%	80.5%
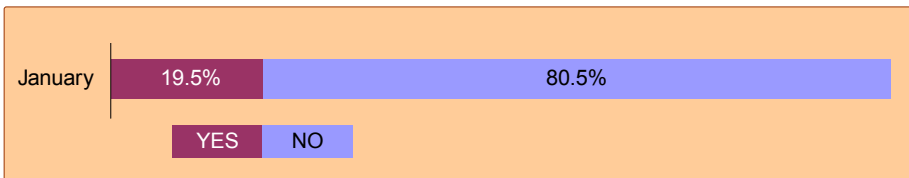
1.3.10. e-skills

As regard computer or mobile device related activities carried out in the last 12 months, 52.3% of Internet users said having transferred files between computers or other devices, and 38.5% used them to install software applications.

Graph 1.36. Which of the following computer or mobile device related activities have you carried out in the last 12 months?

Activity	Percentage
Transferring files between computers or other devices	52.3%
Installing software or applications	38.5%
Changing the settings of software, including operating system or security	35.9%

Graph 1.37. Which ICT activities have you carried out in the last 12 months?

Activity	Percentage
Copying or moving files or folders	74.5%
Use of word processing software	54.5%
Creating presentations or documents integrating text, pictures, tables or charts	35.0%
Using spread sheet software	34.2%
Using software to edit photos, video or audio files	25.7%
Using advanced functions to organise and analyse data (formulas, graphs, ...)	14.8%
Writing code in a programming language	5.8%

1.4. SURVEY RESULTS

MODULE 1.A: Access to information and communciation technologies

In percentages

Answer (households)	Income			Region			Type of households		Total
	Up to 300 euros	300 - 600 euros	More than 600 euros	Central Serbia	Vojvodina	Belgrade	Urban	Other	
A1: Devices available in households (tick all that apply)									
Desktop	49.7	78.3	95.1	65.3	66.2	77.8	73.5	60.7	68.1
Laptop	27.2	48.8	74.8	40.0	40.7	54.1	48.0	36.4	43.7
TV	99.6	99.7	99.5	99.8	99.3	99.5	99.5	99.6	99.6
Cable TV	50.8	62.2	69.5	49.0	56.0	78.8	69.7	39.1	58.4
Mobile phone telefon	82.7	96.7	99.0	88.6	89.3	94.3	92.2	87.7	90.5
A2: Do you or anyone in your household have access to the Internet at home?									
Yes	48.4	79.3	96.8	63.8	68.7	77.5	72.9	59.8	68.0
No	51.6	20.7	3.2	36.2	31.3	22.5	27.1	40.2	32.0
A3: Type of Internet connection(s) (tick all that apply)[1]									
DSL (ADSL)	46.5	50.6	50.1	58.9	42.5	39.1	45.6	55.0	48.7
Cable Internet	42.3	41.1	45.1	32.6	45.9	55.4	47.6	32.8	42.8
Mobile phone (tablet, USB) (via 3G network)	47.3	55.3	58.1	52.8	49.6	58.7	56.1	48.3	53.6
Dial-up access over telephone line or ISDN	1.5	1.6	1.0	1.8	1.2	0.5	1.3	1.0	1.2
Mobile phone (via GPRS)	16.4	15.8	17.5	19.7	13.8	12.3	14.2	19.7	16.0

[1] The data refer to households that answered YES in question A2.

MODULE 1.A: Access to information and communciation technologies

In percentages

Answer (households)	Income			Region			Type of households		Total
	Up to 300 euros	300 - 600 euros	More than 600 euros	Central Serbia	Vojvodina	Belgrade	Urban	Other	
A4: What are the reasons for not having access to the Internet at home? (tick all that apply)[2]									
Have access to the Internet elsewhere	5.6	10.7	6.7	6.0	10.9	4.1	6.8	7.6	7.2
Don't need the Internet	69.5	73.5	76.6	66.0	74.3	75.1	72.1	67.6	70.0
Equipment costs too high	28.0	16.2	15.4	28.0	18.0	24.1	21.9	27.2	24.4
Access costs too high (Internet subscription, telephone)	24.7	15.4	15.4	23.6	16.7	26.1	19.6	24.7	22.0
Lack of skills	25.2	17.7	23.5	24.5	12.6	35.2	19.7	26.3	22.8
Privacy or security concerns	0.5	1.2	0.0	0.9	0.4	0.6	0.6	0.7	0.7
Broadband Internet is not available	1.6	1.6	8.1	2.7	0.4	0.0	0.1	3.2	1.6
None of the above; other reasons	3.3	3.2	8.6	1.9	4.9	4.2	4.6	1.6	3.2

[2] The data refer to households that answered YES in question A2.

MODULE 1.B: Use of

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Man	Woman
B1: When did you last								
Within the last 3 months	95.4	96.1	83.1	69.9	46.2	16.7	72.2	63.4
More than 3 months ago (less than 1 year)	0.5	0.6	2.5	1.4	1.9	0.1	0.9	1.6
More than 1 year ago	2.9	1.4	4.8	5.7	8.2	5.8	4.9	5.0
Never used it	1.1	1.9	9.7	23.1	43.7	77.4	22.0	30.0
B2: How often, on average,								
Every day or almost every day	86.7	83.0	87.8	90.7	85.8	78.8	88.1	84.5
At least once a week	9.6	6.3	6.5	4.6	8.5	11.2	7.3	6.8
At least once a month	3.0	6.7	4.8	4.2	4.3	7.7	3.5	6.4
Less than once a month	0.7	4.0	0.9	0.5	1.4	2.3	1.1	2.3

[1] The data refer to individuals who answered "Within the last 3 months" in question B1.

computers

In percentages

Education level			Employment situation					Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employee	Unemployed	Student	Other	Total	
use a computer?								
37.7	77.5	88.4	86.6	64.9	98.1	34.3	67.7	Within the last 3 months
1.5	1.1	0.8	0.8	2.8	0.0	0.6	1.3	More than 3 months ago (less than 1 year)
4.7	5.3	3.9	2.9	6.5	1.8	7.1	4.9	More than 1 year ago
56.1	16.1	6.9	9.7	25.9	0.2	58.1	26.1	Never used it
have you used a computer in the last 3 months?[1]								
70.7	87.6	94.3	89.2	82.7	90.5	80.4	86.4	Every day or almost every day
16.4	6.3	2.5	4.3	10.1	6.9	11.1	7.1	At least once a week
8.9	4.7	2.4	5.2	4.7	1.3	6.8	4.9	At least once a month
4.0	1.4	0.8	1.2	2.5	1.3	1.7	1.7	Less than once a month

MODULE 1.C: Use of

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Man	Woman
C1: When did you last								
Within the last 3 months	98.0	97.0	88.6	73.5	49.1	17.2	73.7	67.4
More than 3 months ago (less than 1 year)	0.0	1.8	1.7	1.1	3.7	0.5	1.6	1.6
More than 1 year ago	2.0	0.4	2.2	2.6	3.7	2.5	2.2	2.4
Never used it	0.0	0.8	7.4	22.8	43.5	79.8	22.5	28.6
C2: How often, on average, have you used								
Every day or almost every day	93.5	94.7	86.9	85.4	80.2	70.0	91.0	85.1
At least once a week	5.9	3.0	9.8	8.9	15.6	24.8	6.9	10.5
At least once a month	0.6	2.3	2.4	5.7	2.5	4.2	1.6	3.9
Less than once a month	0.0	0.0	0.9	0.0	1.8	1.0	0.4	0.6
C3: Which of the following mobile devices did you use								
Mobile phone or smartphone	86.6	87.2	78.5	61.4	50.8	40.4	76.5	70.7
Mobile phone or smartphone via GPRS or 3G network	63.1	68.9	58.4	43.2	33.7	29.3	60.2	48.5
Mobile phone or smartphone via wireless network (WiFi)	74.3	72.0	68.2	49.3	41.3	28.5	63.7	59.5
Portable computer (laptop or tablet)	20.1	27.0	23.4	21.9	13.0	14.6	23.7	19.5
Via mobile phone network, USB key or SIM card	5.8	9.5	6.9	5.7	4.0	7.5	7.5	5.9
Via wireless network (WiFi)	19.6	24.8	22.5	20.3	11.4	10.4	22.1	18.1
Other devices (media or video games, e-book reader, smartwatch)	7.7	3.6	2.7	1.2	1.5	0.9	3.9	2.7
I did not have access to the Internet via mobile devices away from home or work	12.3	12.3	19.3	35.6	46.5	55.6	21.7	27.3

[1] The data refer to individuals who answered "Within the last 3 months" in question C1.

the Internet

In percetages

Educational level			Employment situation					Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employee	Unemployed	Student	Other	Total	
use the Internet?								
41.3	80.0	89.9	89.5	68.7	99.8	35.9	70.5	Within the last 3 months
1.9	1.8	0.6	1.0	2.7	0.0	1.7	1.6	More than 3 months ago (less than 1 year)
1.7	2.7	1.9	1.0	3.1	0.0	3.8	2.3	More than 1 year ago
55.1	15.4	7.7	8.4	25.4	0.2	58.6	25.6	Never used it
the Internet in the last 3 months?[1]								
76.2	89.1	94.5	89.9	86.3	98.6	77.7	88.1	Every day or almost every day
15.7	8.1	4.6	6.4	10.9	1.4	17.5	8.6	At least once a week
7.3	2.2	0.6	3.3	2.7	0.0	2.9	2.7	At least once a month
0.8	0.5	0.2	0.4	0.1	0.0	1.9	0.5	Less than once a month
to access the Internet outside of home? (tick all that apply)[1]								
62.3	74.9	79.1	80.2	66.8	89.4	53.0	73.7	Mobile phone or smartphone
40.6	56.4	59.9	61.7	46.1	74.0	32.1	54.5	Mobile phone or smartphone via GPRS or 3G network
56.9	60.9	67.4	68.0	55.0	71.7	45.1	61.6	Mobile phone or smartphone via wireless network (WiFi)
18.0	19.4	30.7	26.2	15.5	24.4	16.4	21.7	Portable computer (laptop or tablet)
4.7	6.7	8.5	10.0	1.9	5.8	6.2	6.7	Via mobile phone network, USB key or SIM card
17.5	17.6	29.2	24.4	14.3	23.3	14.9	20.1	Via wireless network (WiFi)
5.2	1.7	6.3	2.4	2.1	8.5	5.6	3.3	Other devices (media or video games, e-book reader, smartwatch)
35.2	23.5	18.5	18.6	30.6	10.6	42.7	24.4	I did not have access to the Internet via mobile devices away from home or work

MODULE 1.C: Use of

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Man	Woman
C4: Which of the following activities have you performed over the Internet								
Sending/receiving e-mails	61.0	65.8	54.8	51.5	44.0	35.1	59.6	51.6
Telephoning over the Iternet/video-calls (via webcam) over the Internet	71.5	70.9	65.9	56.5	56.7	66.3	62.5	67.9
Participating in social networks (*Facebook, Twitter*)	90.6	82.1	72.1	50.1	41.2	24.4	68.1	67.5
Uploading self-created content (text, photos, music, videos, software...)	71.7	53.3	46.1	29.0	21.8	10.0	45.3	43.8
Reading online news/ newspapers/news magazines	69.0	81.2	74.8	78.3	74.4	67.4	77.4	73.7
Seeking health-related information (injuries, diseases, nutrition, improving health...)	69.4	75.2	76.6	78.1	72.2	59.1	68.4	80.0
Finding information about goods or services	69.3	77.7	78.9	80.2	73.4	54.8	75.4	75.7
Looking for job or sending a job application	26.2	28.4	24.3	11.5	9.2	3.3	19.7	21.2
Participating in professional networks (creating profile, posting messages)	11.8	24.6	20.5	8.4	6.2	3.2	15.3	15.0
Using services related to travel and accommodation	36.4	41.2	35.4	34.2	26.3	17.5	34.5	35.3
Selling goods or services over the Internet (via auctions)	22.5	36.0	26.1	23.4	14.0	9.2	29.3	20.5
Internet banking	12.0	29.3	25.2	24.8	21.2	12.5	24.5	21.0
C5: Have you used cloud services for the storage of Google drive , Dropbox , Windows Skydrive,								
Yes	34.7	20.9	18.1	15.2	8.9	6.3	18.7	20.3
No	65.3	79.1	81.9	84.8	91.1	93.7	81.3	79.7

[1] The data refer to individuals who answered "Within the last 3 months" in question C1.

the Internet

In percetages

Educational level			Employment situation					Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employee	Unemployed	Student	Other	Total	
for private purposes in the last 3 months? (tick all that apply)[1]								
31.6	54.2	78.7	63.5	43.4	78.4	37.3	55.7	Sending/receiving e-mails
62.4	63.4	72.0	64.5	64.6	72.7	62.6	65.1	Telephoning over the Iternet/video-calls (via webcam) over the Internet
68.2	69.1	64.0	67.2	67.8	91.3	52.4	67.8	Participating in social networks (*Facebook, Twitter*)
41.6	47.4	38.9	42.7	44.4	72.0	31.7	44.6	Uploading self-created content (text, photos, music, videos, software...)
58.2	76.5	86.7	78.6	72.3	79.2	69.3	75.6	Reading online news/ newspapers/news magazines
65.9	74.0	80.6	75.3	75.9	70.4	67.9	74.1	Seeking health-related information (injuries, diseases, nutrition, improving health...)
60.6	77.2	82.4	79.6	74.8	70.8	65.4	75.5	Finding information about goods or services
7.6	22.3	25.5	20.0	26.5	21.9	7.5	20.5	Looking for job or sending a job application
9.3	13.6	24.1	20.0	11.7	13.8	5.7	15.2	Participating in professional networks (creating profile, posting messages)
18.9	33.0	52.7	39.4	29.9	41.8	23.7	34.9	Using services related to travel and accommodation
20.5	26.7	24.0	26.9	26.0	24.6	16.2	25.1	Selling goods or services over the Internet (via auctions)
2.9	20.5	44.7	32.5	14.0	18.1	9.6	22.8	Internet banking
information (documents, pictures, music or video files): iCloud , Amazon cloud drive... ?								
15.4	17.0	29.6	19.9	17.2	34.0	12.5	19.5	Yes
84.6	83.0	70.4	80.1	82.8	66.0	87.5	80.5	No

MODULE 1.C: Use of

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Man	Woman
C6: Which of the following learning activities have you performed in the last 3 months:								
Doing an online course (from any field)	11.4	11.1	4.2	7.3	4.5	1.3	6.7	8.5
Looking for information on the Internet for learning purposes (audio-visual materials, online learning software, electronic textbooks...)	47.7	35.3	29.2	30.7	19.7	17.3	31.1	33.9
Chatting or discussing on online forum	23.9	20.7	16.5	9.9	5.4	3.1	19.2	11.8
Other	43.5	59.7	63.8	63.8	77.5	80.3	60.5	62.9
C7: Have you used any website or application to book an accommodation								
Yes, dedicated websites or applications (such as *AIRBNB*, *Booking*)	12.8	13.7	15.9	11.5	7.6	6.2	13.8	11.1
Yes, other websites and applications (including social networks)	2.1	8.4	6.1	5.6	3.7	2.9	5.2	5.6
No, I have not	85.6	78.5	78.8	84.9	89.9	91.6	81.8	84.5
C8: Have you used any website or application to arrange a transport services								
Yes, dedicated website or application (such as *UBER*)	4.5	4.2	5.9	5.0	2.8	2.3	4.5	4.6
Yes, other websites and applications (including social networks)	4.3	4.7	2.7	5.1	3.6	2.8	4.5	3.4
No, I have not	91.9	91.5	91.9	91.3	94.2	95.0	91.6	92.7

the Internet

In percetages

Educational level			Employment situation					Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employee	Unemployed	Student	Other	Total	
over the Internet for personal or professional purposes (tick all that apply)								
2.5	7.1	13.0	8.3	4.7	16.1	5.2	7.6	Doing an online course (from any field)
23.4	31.3	42.9	30.9	30.1	53.7	28.5	32.5	Looking for information on the Internet for learning purposes (audio-visual materials, online learning software, electronic textbooks...)
14.6	16.0	15.2	14.6	15.6	28.7	9.7	15.6	Chatting or discussing on online forum
68.2	63.2	52.3	63.1	65.3	36.5	66.2	61.7	Other
(room, apartment, house, holiday cottage)? (tick all that apply)								
2.9	10.5	26.0	14.7	8.9	24.0	4.8	12.5	Yes, dedicated websites or applications (such as *AIRBNB*, *Booking*)
0.0	5.7	8.8	7.2	3.9	3.6	3.2	5.4	Yes, other websites and applications (including social networks)
97.1	84.3	68.5	79.5	87.8	72.4	93.0	83.1	No, I have not
(by car) from another person in the last 12 months? (tick all that apply)								
2.0	3.2	10.4	5.3	3.9	7.3	1.2	4.5	Yes, dedicated website or application (such as *UBER*)
2.1	3.4	7.3	3.9	3.4	9.2	1.9	4.0	Yes, other websites and applications (including social networks)
95.9	93.8	84.2	91.5	93.3	84.8	97.0	92.1	No, I have not

MODULE 1.D: Use of

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Man	Woman
D1: In the last 12 months, have you used public purposes for the following								
Obtaining information from websites of public institutions	20.6	36.2	33.9	34.8	30.0	22.8	33.3	29.2
Downloading official forms	13.1	23.4	21.0	23.4	19.8	14.8	21.6	18.8
Submitting completed forms	7.5	19.8	18.0	20.0	18.4	13.6	18.0	15.6
D2: What are the reasons for not submitting completed								
No need for submitting completed forms	77.0	79.2	75.7	70.3	67.2	59.6	75.4	72.5
There were no such services on the website	0.7	3.1	0.5	1.9	2.9	3.5	1.7	1.9
Lack of skills	2.2	1.0	9.1	10.8	10.0	20.1	6.4	7.3
Concerns about security and protection of personal data	5.6	4.7	3.8	3.2	4.2	3.0	3.3	5.2
Lack of electronic signature or identification	0.7	0.3	1.5	0.0	0.9	0.0	1.1	0.2
Another person did it on my behalf	9.8	0.8	3.8	4.9	4.8	8.9	4.0	5.6
Other reasons	4.6	11.5	9.0	10.0	11.0	8.0	9.5	8.8

[1] The data refer to individuals who answered "Within the last 3 months" or "More than 3 months ago (less than 1 year)" in question C1.

[2] The data refer to individual who did not answer in question D1 "Submitting completed forms".

e-government [1)]

In percentages

Educational level			Employment situation					Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employee	Unemployed	Student	Other	Total	
authorities' services or public services over the Internet for private activities? (tick all that apply)[1)]								
11.8	29.4	52.7	36.9	29.1	26.3	19.5	31.3	Obtaining information from websites of public institutions
5.1	18.5	37.7	26.1	14.4	19.6	12.7	20.2	Downloading official forms
3.6	14.9	33.1	22.9	12.2	10.0	10.0	16.8	Submitting completed forms
forms to public authorities over the Internet in the last 12 months? [2)]								
77.0	74.2	69.7	75.1	75.1	79.0	64.6	74.0	No need for submitting completed forms
0.0	1.8	4.1	1.5	2.3	0.0	2.9	1.8	There were no such services on the website
9.8	6.4	4.7	6.7	7.9	1.0	8.9	6.8	Lack of skills
3.3	4.7	4.0	3.9	3.4	3.7	7.6	4.3	Concerns about security and protection of personal data
0.0	0.7	1.3	0.8	0.2	0.0	1.8	0.7	Lack of electronic signature or identification
6.4	4.4	4.5	2.6	4.1	10.5	9.3	4.8	Another person did it on my behalf
3.9	9.9	12.5	11.0	8.1	5.7	8.1	9.1	Other reasons

MODULE 1.E:

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Man	Woman
E1: When did you last buy/order goods								
Within the last 3 months	33.0	41.4	27.8	22.6	16.3	7.0	31.6	24.8
More than 3 months ago (less than 1 year)	19.3	15.4	12.2	10.4	8.7	5.7	11.3	14.9
More than 1 year ago	9.4	9.7	10.5	9.4	4.7	3.5	8.7	8.9
Never used it	38.3	33.5	49.5	57.6	70.3	83.8	48.5	51.5
E2: What types of goods or services have you ordered/bought over								
Food or groceries	1.9	2.5	3.6	2.8	2.2	4.7	2.3	3.0
Household goods (furniture, toys...)	9.5	23.6	24.2	26.1	29.2	38.4	19.8	23.8
Pharmceutical products	7.5	4.4	6.2	9.3	8.7	9.7	3.4	10.2
Clothes, sports goods	64.6	60.1	55.9	58.9	43.6	36.0	49.7	67.7
Computer hardware	13.3	11.3	11.0	16.1	10.9	18.9	16.4	7.9
Electronic equipment (incl. cameras)	10.3	22.8	25.6	20.8	17.8	33.4	28.7	10.4
Telecommunication services (broadband subscription, uploading money on prepaid phone cards...)	3.2	1.4	3.9	7.0	6.2	8.6	4.3	3.0
Purchase of shares, insurance policies and other financial services	3.8	6.6	11.7	12.6	10.9	8.1	7.9	9.0
Holiday accommodation (hotel, etc.)	5.5	6.3	12.6	8.9	6.6	1.7	7.7	8.1
Other travel arrangements (transport tickets, car hire...)	11.2	7.3	8.6	7.8	7.9	4.7	10.2	6.6
Tickets for cultural events	7.1	4.6	5.1	3.3	0.9	0.0	6.3	2.8
Films, music	11.1	10.5	16.4	13.2	10.3	2.9	11.8	12.8
Books/magazines/newspapers	2.5	0.8	0.4	4.2	5.4	0.0	2.4	1.5
e-learning materials	9.4	6.5	7.1	4.0	2.7	4.7	9.6	3.0
Video games and upgrades	10.9	12.7	11.8	12.6	11.0	17.8	16.9	6.5
Other								

[1] The data refer to individuals who did not answer in question C1 "Never used it".

[2] The data refer to individuals who answered in question E1 "Within the last 3 months" or "More than 3 months ago (less than 1 year)".

e-Commerce[1)]

In percentages

Educational level			Employment situation					Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employee	Unemployed	Student	Other	Total	
or services over the Internet for private use?								
21.1	29.1	31.8	30.4	27.2	44.0	13.7	28.3	Within the last 3 months
10.4	13.8	13.0	14.1	11.5	17.0	10.3	13.0	More than 3 months ago (less than 1 year)
6.8	9.4	8.6	8.9	8.4	12.8	6.7	8.8	More than 1 year ago
61.6	47.7	46.6	46.7	53.0	26.2	69.2	49.9	Never used it
the Internet in the last 12 months, for private purposes? (tick all that apply)[2)]								
0.0	1.7	6.9	3.4	1.4	3.0	1.3	2.6	Food or groceries
22.2	20.6	24.5	22.2	24.8	6.5	32.1	21.7	Household goods (furniture, toys...)
4.9	6.5	8.1	6.4	6.8	5.6	9.0	6.6	Pharmceutical products
70.9	57.8	51.7	56.7	59.1	64.8	53.3	58.2	Clothes, sports goods
13.5	10.8	16.3	14.3	9.0	10.6	15.1	12.4	Computer hardware
7.9	22.3	21.0	24.1	19.8	12.9	7.6	20.1	Electronic equipment (incl. cameras)
5.2	2.0	7.6	3.5	3.2	0.0	12.8	3.7	Telecommunication services (broadband subscription, uploading money on prepaid phone cards...)
0.0	6.0	20.1	11.6	6.2	3.9	3.5	8.4	Purchase of shares, insurance policies and other financial services
0.0	6.3	16.8	9.6	7.9	5.4	1.6	7.9	Holiday accommodation (hotel, etc.)
10.3	4.8	17.6	10.0	3.9	16.6	2.3	8.5	Other travel arrangements (transport tickets, car hire...)
5.7	4.2	5.4	4.9	3.4	9.4	0.0	4.7	Tickets for cultural events
4.6	10.6	21.2	14.3	8.7	17.3	3.4	12.2	Films, music
2.3	1.2	4.0	2.0	2.7	1.8	0.0	2.0	Books/magazines/newspapers
9.4	5.8	6.9	6.3	6.0	6.3	9.9	6.5	e-learning materials
12.9	12.6	9.8	10.3	16.0	9.2	13.1	12.0	Video games and upgrades
								Other

MODULE 1.E:

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Man	Woman
E3: Were any of the following products that you bought or ordered from websites or applications								
Films, music	54.9	38.9	61.8	48.4	68.9	100.0	52.1	48.1
e-books	10.7	46.3	43.8	71.7	31.1	0.0	37.6	39.5
e-magazines/newspapers	26.5	26.2	29.3	30.1	0.0	0.0	23.5	33.4
Computer software, games and upgrades	49.1	57.5	44.0	28.6	31.3	100.0	60.2	24.5
E4: From whom have you bought/ordered goods or services								
From national sellers	77.5	84.8	89.3	87.2	84.6	85.6	85.2	83.9
From sellers from EU countries	12.2	13.9	12.7	12.2	11.1	18.0	12.4	13.3
From sellers from the rest of the world	14.2	9.8	12.8	12.0	17.2	22.6	14.6	10.3
Unknown country or origin of sellers is not known	5.8	0.7	0.8	0.0	1.7	0.0	0.2	3.7
E5: Which type of goods or services have you bought/ordered or from the rest of the world in the last								
Physical goods (electronics, clothes, toys, food, books, CD/DVD)	100.0	87.4	73.8	84.3	81.0	100.0	85.1	88.1
Digital content downloaded from websites or web application (films, music, e-books, e-newspapers, games, paid applications)	0.0	26.8	11.1	19.9	12.4	9.4	18.7	10.1
Travel accommodation or holiday arrangements (tickets and documents received by e-mail or printed by yourself)	0.0	8.1	31.7	17.2	13.2	14.6	8.3	19.5
Services (tickets for cultural events, transport services, insurance)	6.6	4.8	9.7	8.5	6.7	0.0	5.6	8.4

[1] The data refer to individuals who did not anwser in question C1 "Never used it".

[2] The data refer to individuals who answered in question E1 "Within the last 3 months" or "More than 3 months ago (less than 1 year)".

e-Commerce[1)]

In percentages

Educational level			Employment situation					Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employee	Unemployed	Student	Other	Total	
over the Internet for private use downloaded or accessed in the last 12 months? (tick all that apply)								
77.2	38.4	62.5	45.0	57.3	48.5	100.0	50.8	Films, music
22.6	31.2	57.7	54.4	38.6	0.0	0.0	38.2	e-books
22.6	25.1	31.6	31.1	34.7	11.4	0.0	26.8	e-magazines/newspapers
45.0	53.9	39.3	48.7	37.8	53.5	73.9	48.3	Computer software, games and upgrades
over the Internet in the last 12 months? (tick all that apply)[2)]								
80.2	86.8	80.8	84.3	91.3	71.9	82.8	84.5	From national sellers
15.2	9.7	20.0	13.9	9.4	20.5	5.6	12.8	From sellers from EU countries
8.0	10.5	20.9	15.2	5.4	18.3	12.3	12.6	From sellers from the rest of the world
3.3	1.9	0.8	1.0	0.8	4.6	6.1	1.8	Unknown country or origin of sellers is not known
for private purpose from sellers from other EU countries 12 months (tick all that apply)								
100.0	87.3	80.7	83.6	77.1	100.0	95.9	86.4	Physical goods (electronics, clothes, toys, food, books, CD/DVD)
0.0	15.9	18.6	22.0	12.8	0.0	2.9	15.0	Digital content downloaded from websites or web application (films, music, e-books, e-newspapers, games, paid applications)
0.0	8.4	24.4	14.3	26.9	0.0	5.6	13.1	Travel accommodation or holiday arrangements (tickets and documents received by e-mail or printed by yourself)
11.8	3.2	10.4	8.3	2.3	7.2	4.1	6.8	Services (tickets for cultural events, transport services, insurance)

MODULE 1.E:

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Man	Woman
E6: How many times have you bought/ordered goods or services								
1-2 times	67.2	50.5	61.9	56.7	52.5	68.7	56.6	59.1
3-5 times	22.0	39.0	30.2	28.1	36.7	15.6	30.9	32.5
6-10 times	8.9	5.0	3.3	8.7	1.0	7.1	5.3	6.0
More than 10 times	1.9	5.5	4.6	6.5	9.9	8.6	7.2	2.4
E7: How much did you spend buying/ordering goods or services (tick all								
More than 50 euros	52.5	47.2	56.3	33.3	41.0	36.6	42.4	54.5
From 50 to 100 euros	25.7	26.0	22.3	27.4	27.0	19.3	26.9	23.3
From 100 to 500 euros	8.4	21.3	11.9	23.1	23.8	37.0	20.1	13.4
From 500 to 1000 euros	2.3	2.5	1.8	7.2	5.0	0.0	4.2	1.7
More than 1000 euros	1.7	0.7	6.1	3.3	2.2	0.0	3.9	1.0
Don't know	9.4	2.4	1.6	5.6	1.0	7.1	2.4	6.1
E8: Which of the following problems have you encountered when 12 months? (tick								
Technical failure of website during ordering or payment	2.4	0.0	0.4	0.9	0.6	4.0	1.3	0.3
Difficulties in finding information concerning guarantees	0.6	0.0	1.2	0.0	0.5	1.5	0.2	0.8
Speed delivery slower than indicated	4.0	4.5	7.5	3.6	2.1	1.5	4.2	5.2
Final costs higher than indicated	2.7	0.4	2.3	2.8	0.0	0.0	2.8	0.3
Wrong or damaged goods/services delivered	6.4	5.3	9.1	8.6	8.5	11.3	6.0	8.7
Payment not secured enough (misuse of credit card details, etc.)	0.0	0.5	0.0	0.8	0.0	0.0	0.5	0.0
Unsatisfactory response to complaints or redress	3.1	2.2	1.9	0.9	1.3	5.5	1.4	2.8
Foreign retailer did not sell to the Republic of Serbia	1.1	0.4	1.6	0.0	0.5	1.5	0.2	1.4
Other	0.0	0.8	0.4	1.9	3.6	5.0	0.8	1.2
I haven't encountered any problem	89.0	90.3	82.5	86.0	85.3	79.8	88.2	85.9

[1] The data refer to individuals who did not answer in question C1 "Never used it".

[2] The data refer to individuals who answered in question E1 "Within the last 3 months" or "More than 3 months ago (less than 1 year)".

e-Commerce[1)]

In percentages

Educational level			Employment situation					Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employee	Unemployed	Student	Other	Total	
over the Internet for private purposes in the last 3 months?								
61.6	59.6	50.5	55.2	52.0	67.9	78.8	57.7	1-2 times
31.1	29.8	36.3	32.1	37.2	24.4	17.7	31.6	3-5 times
7.3	4.1	8.8	4.8	6.9	7.7	2.3	5.6	6-10 times
0.0	6.5	4.4	7.9	3.8	0.0	1.2	5.1	More than 10 times
over the Internet for private purposes in the last 3 months? that apply)[2)]								
47.4	47.1	49.4	48.4	46.4	48.3	45.9	47.7	More than 50 euros
23.8	27.0	21.7	25.6	26.5	21.0	26.7	25.3	From 50 to 100 euros
19.3	15.8	19.8	16.2	20.3	13.5	19.2	17.2	From 100 to 500 euros
3.5	2.7	4.2	5.1	0.5	3.4	0.0	3.2	From 500 to 1000 euros
0.0	3.3	2.3	3.4	1.6	2.5	1.2	2.6	More than 1000 euros
6.0	4.1	2.6	1.3	4.6	11.3	7.1	4.0	Don't know
bying/ordering goods or services over the Internet in the last all that apply)[2)]								
0.0	1.2	0.4	1.0	0.9	0.0	1.3	0.9	Technical failure of website during ordering or payment
0.0	0.3	1.2	0.9	0.0	0.0	0.2	0.5	Difficulties in finding information concerning guarantees
6.2	4.2	5.0	4.3	7.2	3.6	0.2	4.7	Speed delivery slower than indicated
6.2	0.8	1.4	1.6	1.8	2.4	0.0	1.6	Final costs higher than indicated
7.4	7.7	5.8	7.9	7.9	5.1	4.3	7.3	Wrong or damaged goods/services delivered
0.0	0.0	1.2	0.2	0.5	0.0	0.0	0.3	Payment not secured enough (misuse of credit card details, etc.)
2.3	2.0	2.2	1.0	2.5	5.6	1.5	2.1	Unsatisfactory response to complaints or redress
0.0	0.6	1.5	0.7	0.6	1.8	0.2	0.8	Foreign retailer did not sell to the Republic of Serbia
0.0	0.8	2.0	1.2	0.8	0.0	1.5	1.0	Other
86.5	88.4	84.0	86.3	86.0	88.9	93.6	87.1	I haven't encountered any problem

MODULE 1.E:

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Man	Woman
E9: Have you carried out any of the following financial for private purposes								
Bying/selling shares, bonds or other investment services	0.0	0.5	0.0	0.9	0.0	0.0	0.2	0.3
Buying/renewing insurance policies, including policies offered as a package together with another service (travel insurance offered together with a plane ticket)	2.0	2.0	5.0	3.5	2.0	0.0	2.8	3.0
Taking a loan from banks or other financial institutions	0.0	1.7	1.0	1.1	0.0	0.0	1.3	0.5
E10: What were the reasons for not buying/ordering in the last 12 months?								
Prefer to shop in person, like to see product, loyalty to shops, force of habit	87.4	80.3	82.5	79.7	71.2	78.3	77.6	81.9
Lack of skills or knowledge (didn't know how to use website or use was too complicated)	1.2	8.0	9.4	11.5	17.8	19.5	8.5	12.8
Delivery of goods ordered over the Internet is a problem	3.8	3.1	6.8	4.1	5.1	1.5	5.0	4.1
Payment security concerns (giving credit card details or personal details over the Internet)	14.8	16.5	26.5	19.9	20.9	13.7	20.5	19.5
Concerns about receiving or returning goods, complaints/redress	20.4	29.4	34.2	26.5	31.1	24.1	29.9	27.5
Don't have a payment card allowing to pay over the Internet	8.5	10.2	6.4	8.8	7.8	5.9	8.0	8.1
Foreign retailer did not sell to the Republic of Serbia	0.0	1.1	0.0	0.6	0.0	0.0	0.2	0.4
Other	7.0	13.2	9.6	15.1	16.1	11.3	15.2	9.5

[1] The data refer to individuals who did not answer in question C1 "Never used it".

e-Commerce[1)]

In percentages

Educational level			Employment situation					Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employee	Unemployed	Student	Other	Total	
activities over the Internet (excluding e-mail) in the last 12 months?								
0.0	0.0	1.2	0.5	0.0	0.0	0.0	0.3	Bying/selling shares, bonds or other investment services
0.0	2.8	5.0	4.2	1.1	3.4	0.0	2.9	Buying/renewing insurance policies, including policies offered as a package together with another service (travel insurance offered together with a plane ticket)
0.0	1.1	0.7	1.8	0.0	0.0	0.0	0.9	Taking a loan from banks or other financial institutions
goods or services for private purposes over the Internet (tick all that apply)								
81.1	81.3	73.8	82.0	79.7	90.2	71.0	79.8	Prefer to shop in person, like to see product, loyalty to shops, force of habit
13.0	10.9	7.7	9.6	9.6	0.0	19.0	10.7	Lack of skills or knowledge (didn't know how to use website or use was too complicated)
3.4	5.1	4.0	4.3	4.9	4.7	4.6	4.6	Delivery of goods ordered over the Internet is a problem
17.1	21.1	19.7	22.9	17.4	15.7	18.7	20.0	Payment security concerns (giving credit card details or personal details over the Internet)
24.1	30.9	26.8	28.6	28.1	20.3	32.6	28.7	Concerns about receiving or returning goods, complaints/redress
6.4	9.1	6.7	6.3	11.5	7.0	6.7	8.1	Don't have a payment card allowing to pay over the Internet
0.0	0.2	0.9	0.5	0.2	0.0	0.0	0.3	Foreign retailer did not sell to the Republic of Serbia
9.2	12.5	14.9	13.4	11.1	3.4	14.6	12.3	Other

MODULE 1.F:

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Man	Woman
F1: Which of the following computer or mobile device related activities								
Transferring files between computers or other devices	79.8	67.0	52.5	35.9	25.2	16.8	55.4	49.1
Installing software or applications	54.9	49.5	46.3	22.5	16.0	8.3	41.0	35.8
Changing the settings of any software, incl. operating system or security (antivirus) programmes	44.2	51.5	38.5	25.1	16.5	10.8	41.0	30.5
F2: Which of the following activities								
Copying or moving files or folders	88.0	90.8	82.1	64.0	40.9	45.5	77.1	71.9
Using word processing software	75.9	63.2	49.5	48.8	37.2	25.0	55.1	53.8
Creating presentations or documents integrating text, pictures, tables or charts	63.9	39.2	32.0	26.3	15.9	7.3	37.3	32.5
Using spreadsheet software	51.0	45.5	30.0	26.0	18.8	9.0	38.3	29.9
Using advanced functions to organise and analyse data, such as sorting, filtering, using formulas, creating charts	22.7	20.9	13.3	10.0	7.4	2.3	17.5	12.1
Using software to edit photos, video or audio files	37.3	33.7	25.9	19.5	11.1	5.3	27.7	23.6
Writing code in a programming language	10.9	7.9	4.3	4.0	2.0	1.2	7.4	4.1

[1] The data refer to individuals who did not answer in question B1 "Never used it".

e-skills[1)]

In percentages

Educational level			Employment situation				Total	Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employee	Unemployed	Student	Other		
have you carried out in the last 12 months: (tick all that apply)								
38.1	52.0	64.8	53.9	46.6	88.2	34.7	52.3	Copying or moving files or folders
24.9	38.5	49.5	43.2	33.9	59.7	17.2	38.5	Installing software or applications
25.0	35.0	47.3	40.8	30.5	52.7	18.4	35.9	Changing the settings of any software, incl. operating system or security (antivirus) programmes
have you carried out in the last 12 months: (tick all that apply)								
60.1	75.8	82.9	81.0	70.1	88.6	51.5	74.5	Copying or moving files or folders
36.6	51.0	79.1	61.9	41.5	81.1	38.4	54.5	Using word processing software
27.8	30.2	54.6	37.7	24.1	69.6	25.6	35.0	Creating presentations or documents integrating text, pictures, tables or charts
18.0	31.1	56.2	39.7	23.3	58.6	21.8	34.2	Using spreadsheet software
8.2	12.4	27.3	19.6	6.6	27.1	7.7	14.8	Using advanced functions to organise and analyse data, such as sorting, filtering, using formulas, creating charts
16.6	24.8	35.5	27.7	22.2	40.5	15.8	25.7	Using software to edit photos, video or audio files
4.2	4.3	11.2	5.5	4.6	16.7	1.7	5.8	Writing code in a programming language

1.5. QUESTIONNAIRE

USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN HOUSEHOLDS AND BY INDIVIDUALS

MODULE 1.A: ACCESS TO INFORMATION AND COMMUNICATION TECHNOLOGIES

A1	**Do you or anyone in your household have access to the following devices at home?**

(tick all that apply)

a) Desktop ☐

b) Laptop ☐

c) TV ☐

    c1) Satellite TV ☐

    c2) Cable TV ☐

    c3) Digital TV ☐

d) Radio receiver (including mobile phone, car radio...) ☐

e) Mobile phone ☐

f) None of the above ☐

⟶ *Go to A2*

A2	**Do you or anyone in your household have access to the Internet at home, whether used or not?**

(tick only one)

Yes ☐ ⟶ *Go to A3*

No ☐ ⟶ *Go to A4*

Don't know ☐ ⟶ *Go to B1*

⟶ *Go to A3*

A3	**What types of Internet connections do you use <u>at home</u>?**

(tick all that apply)

a) Broadband connection ADSL (DSL) ☐

b) Broadband connection, cable Internet ☐

c) Mobile broadband connection *(*3G network) via a mobile phone, smartphone, SIM cards, USB key ☐

d) Dial-up access over telephone line or ISDN ☐

e) Mobile narrowband connection (2G or GPRS), via SIM card or USB key, mobile phone, smartphone, modem in laptop ☐

⟶ *Go to B1*

A4	What are the reasons for not having access to the Internet <u>at home</u>?

(tick all that apply)

a) Have access to the Internet elsewhere ☐

b) Don't need the Internet ☐

c) Equipment costs too high ☐

d) Access costs too high (Internet subscription, telephone) ☐

e) Lack of skills ☐

f) Privacy or security concerns ☐

g) Broadband Internet is not available ☐

h) None of the above; other reasons ☐

→ *Go to B1*

MODULE 1.B: USE OF COMPUTERS

B1	When did you last use a <u>computer</u> (at home, at work or any other place)? (desktop, laptop, netbook, tablet, excluding smartphones)

(tick only one)

Within the last 3 months ☐ → *Go to B2*

More than 3 months ago (less than 1 year) ☐ → *Go to C1*

More than 1 year ago ☐ → *Go to C1*

Never used it ☐ → *Go to C1*

B2	How often on average have you used a <u>computer</u> in the last 3 months?

(tick only one)

Every day or almost every day ☐

At least once a week ☐

Less than once a month ☐

→ *Go to C1*

MODULE 1.C: USE OF THE INTERNET

C1	When did you last use the <u>Internet</u>? (desktop, laptop, mobile phone, smartphone)

(tick only one)

Within the last 3 months ☐ → *Go to C2*

More than 3 months ago (less than 1 year) ☐ → *Go to C7*

More than 1 year ago ☐ → *Go to E1*

Never used it ☐ → *Go to G1*

C2	How often on average have you used the <u>Internet</u> in the last 3 months?

(tick only one)

Every day or almost every day ☐

At least once a week ☐

Less than once a month ☐

➤ *Go to C3*

C3	Did you use any of the following mobile devices to access the Internet <u>away from home or work</u>?

(tick all that apply)

a) Mobile phone or smartphone ☐
If the answer is "YES" in a) ➤ *go to a1) or a2)*

    a1) Mobile phone or smartphone via GPRS or 3G network ☐

    a2) Mobile phone or smartphone via wireless network (WiFi) ☐

b) Portable computer (laptop or tablet) ☐
If the answer is "YES" in a) ➤ *go to b1) or b2)*

    b1) Via mobile phone network, USB key or SIM card ☐

    b2) Via wireless network (WiFi) ☐

c) Other devices (media or video games, e-book reader, smartwatch) ☐

d) I did not have access to the Internet via mobile devices away from home or work ☐

➤ *Go to C4*

C4	Which of the following activities have you performed over the Internet <u>for private purposes</u> in the last 3 months?

(tick all that apply)

Communication
  a) Sending/receiving e-mails ☐

  b)Telephoning over the Internet /video-calls (via webcam) over the Internet ☐

  c) Participating in social networks *(Facebook, Twitter)* ☐

  d) Uploading self-created content (text, photos, music, videos, software...) ☐

Access to information
  e) Reading online news / newspapers / news magazines ☐

  f) Seeking health-related information (injuries, diseases, nutrition, improving health...) ☐

  g) Finding information about goods or services ☐

Professional life
  h) Looking for a job or sending a job application ☐

  i) Participating in professional networks (creating profile, posting messages) ☐

Other online services
  j) Using services related to travel and accommodation ☐

  k) Selling of goods or services over the Internet (via auctions) ☐

  l) Internet banking ☐

➤ *Go to C5*

C5	**Have you used cloud services for the storage of files (documents, pictures, music or video files) such as Google drive, Dropbox, Windows One Drive, iCloud, Amazon cloud drive?**

(tick only one)

Yes	☐
No	☐

→ *Go to C6*

C6	**Which of the following learning activities have you performed over the Internet for private or professional purposes in the last 3 months?**

(tick all that apply)

a) Doing an online course (from any field)	☐
b) Looking for information on the Internet for learning purposes (audio-visual materials, online learning software, electronic textbooks…)	☐
c) Chatting or discussing on online forum	☐
d) Other	☐

→ *Go to C7*

C7	**Have you used any website or application to book an accommodation (room, apartment, house, holiday cottage, etc.) or else in the last 12 months?**

(tick all that apply)

a) Yes, dedicated websites or applications (such as *AIRBNB*, *Booking*, other national examples)	☐
b) Yes, other websites or applications (including social networks)	☐
c) No, I have not	☐

→ *Go to C8*

C8	**Have you used any website or application to arrange a transport services (by car, etc.) from another individual in the last 12 months?**

(tick all that apply)

a) Yes, dedicated website or application (such as *UBER*, other national examples)	☐
b) Yes, other websites and applications (including social networks)	☐
c) No, I have not	☐

→ *Go to D1*

MODULE 1.D: USE OF e-GOVERNMENT

D1	**In the last 12 months, have you used public authorities' services or public services <u>over the Internet</u>, for private purposes for the following activities?** (e.g. websites where official documents, i.e. certificates can be downloading (hospitals, libraries....)

(tick all that apply)

a) Obtaining information from websites of public institutions or public services	☐
b) Downloading official forms	☐
c) Submitting completed forms	☐
d) None of the above	☐

If the answer is 'NO" to c) → *go to D2; otherwise, go to question E1*

D2	**What were the reasons for <u>not submitting completed forms</u> to public authorities <u>over the Internet</u> in the last 12 months?**	
	(tick all that apply)	
	a) No need to submit completed forms (whether online or in hard copy *If the answer is '"YES" in a) ➝ go to question E1; otherwise, go to b)*	☐
	b) There were no such services on the website (didn't exist)	☐
	c) Lack of skills (didn't know how to use website or use was too complicated)	☐
	d) Concerns about security and protection of personal data	☐
	e) Lack of electronic signature or identification	☐
	f) Another person did it on my behalf	☐
	g) Other reasons	☐
	➝ **Go to E1**	

MODULE 1.E: e-COMMERCE

E1	**When did you last buy or order goods or services <u>over the Internet</u> for private use?** (via website or applications from any device: desktop, laptop, mobile phone, smartphone)		
	(for persons who DID'T answer "Never used it" in question B3)		
	Within the last 3 months	☐	➝ **Go to E2**
	More than 3 months ago (less than 1 year ago)	☐	➝ **Go to E7**
	More than 1 year ago	☐	➝ **Go to E9** *if the answer is „More than 1 year ago" to C1 -> go to E10*
	Never	☐	➝ **Go to E9** *if the answer is „More than 1 year ago" to C1 -> go to E10*

E2	**What types of goods or services have you bought <u>over the Internet</u> in the last 12 months, for private purposes?**	
	(tick all that apply)	
	a) Food or groceries	☐
	b) Household goods (furniture, toys, etc.)	☐
	c) Pharmaceutical products	☐
	d) Clothes, sports goods	☐
	e) Computer hardware	☐
	f) Electronic equipment (incl. cameras)	☐
	g) Telecommunication services (broadband subscription, uploading money on prepaid phone cards, etc.)	☐
	h) Holiday accommodation (hotel, etc.)	☐
	i) Other travel arrangements (transport tickets, car hire, etc.)	☐
	j) Tickets for cultural events	☐
	k) Films, music	☐
	l) Books/magazines/newspapers (including electronic books)	☐
	m) e-learning materials	☐
	n) Video games and upgrades, computer software and upgrades	☐
	o) Other	☐
	➝ ***Go to E3/if "Yes" to E2 under k), i), n); otherwise, go to E4***	

E3	**Were any of the following products that you bought or ordered <u>over the Internet</u> for private use downloaded or accessed from websites or applications in the last 12 months?**

(tick all that apply)

a) **Films, music** ☐

b) **e-books** ☐

c) **e-magazines/newspapers** ☐

d) **Computer software, games and upgrades** ☐

→ *Go to E4*

E4	**From whom have you bought/ordered goods or services <u>over the Internet</u> in the last 12 months?**

(tick all that apply)

a) **From national sellers** ☐

b) **From sellers from EU countries** ☐

c) **From sellers from the rest of the world** ☐

d) **Unknown country or origin of sellers is not known** ☐

Go to E5/if „Yes" to E4 in b) and/or c); → go to E6/if "No" to E4 under b) and/or c) and „within the last 3 months" to E1; otherwise, go to E8

E5	**Which type of goods or services have you bought/ordered for private purposes <u>from sellers from other EU countries or from the rest of the world</u> in the last 12 months?**

If "Yes" in b) and/or in c) to E4
(tick all that apply)

a) **Physical goods (electronics, clothes, toys, food, books, CDs/DVDs)** ☐

b) **Digital content downloaded from websites or web applications (films, music, e-books, e-newspapers, games, paid applications)** ☐

c) **Travel, accommodation or holiday arrangements (tickets and documents received by e-mail or printed by yourself)** ☐

d) **Services (tickets for cultural events, transport services, insurance, etc.)** ☐

→ *go E6/if "Yes" "Within the last 3 months" to E1; otherwise, go to E8*

E6	**How many times have you bought/ordered goods or services <u>over the Internet</u> for private purposes in the last 3 months?**

For persons who answered „Within the last 3 months" to E1

1–2 times ☐

3–5 times ☐

6–10 times ☐

More than 10 times ☐

→ *Go to E7*

E7	**How much did you spend buying/ordering goods or services <u>over the Internet</u> for private purposes in the last 3 months?**

For persons who answered 'Within the last 3 months" in question E1

More than 50 euros ☐

From 50 to 100 euros ☐

From 100 to 500 euros ☐

From 500 to 1000 euros ☐

More than 1000 euros ☐

Don't know ☐

→ *Go to E8*

E8	Which of the following problems have you encountered when buying/ordering goods or services <u>over the Internet</u> in the last 12 months?

For persons who answered „Within the last 3 months or More than 3 months ago (less than 1 year)" in question E1
(tick all that apply)

a) Technical failure of website during ordering or payment ☐

b) Difficulties in finding information concerning guarantees ☐

c) Speed of delivery slower than indicated ☐

d) Final costs higher than indicated ☐

e) Wrong or damaged goods/services delivered or goods not received at all ☐

f) Payment not secured enough (misuse of credit cards details, etc.) ☐

g) Unsatisfactory responses to complaints or redress ☐

h) Foreign retailer did not sell to the Republic of Serbia ☐

i) Other ☐

j) I haven't encountered any problem ☐

→ *Go to E9*

E9	Have you carried out any of the following financial activities <u>over the Internet</u> (excluding e-mail) for private purposes in the last 12 months?

For persons who answered „Within the last 3 months or More than 3 months ago (less than 1 year)" in C1
(tick all that apply)

a) Bying/selling shares, bonds or other investment services ☐

b) Bying/renewing insurance policies, including policies offered as a package together with another service (travel insurance offered together with a plane ticket) ☐

c) Taking a loan from banks or other financial institutions ☐

→ *go to F1/ if the answer is "Yes" to E1 "Within the last 3 months" or "More than 3 months ago (less than 1 year)"; otherwise, go to E10*

E10	What were the reasons <u>for not buying/ordering goods or services</u> for private purposes <u>over the Internet</u> in the last 12 months?

(tick all that apply)

a) Prefer to shop in person, like to see product, loyalty to shops, force of habit ☐

b) Lack of skills or knowledge (didn't know how to use website or use was too complicated) ☐

c) Delivery of goods ordered over the Internet is a problem ☐

d) Payment security concerns (giving credit card details or personal details over the Internet) ☐

e) Concerns about receiving or returning goods, complaints/redress concerns ☐

f) Don't have a payment card allowing to pay over the Internet ☐

g) Foreign retailer did not sell to the Republic of Serbia ☐

h) Other ☐

→ *Go to F1/if the answer is "Yes" to C1 "Within 3 months" or "More than 3 months ago (more than 1 year)"; otherwise, go to question G1*

MODULE 1.F: e-SKILLS

F1	Which of the following computer or mobile device related activities have you carried out in the last 12 months?

(for persons who DIDN'T answer "More than a year age" or "Never used it" in question C1)
(tick all that apply)

a) Transferring files between computers or other devices ☐

b) Installing software or applications ☐

c) Changing the settings of any software, including operating system or security (antivirus) programmes ☐

→ *Go to F2*

F2	Which of the following activities have you carried out in the last 12 months?

(tick all that apply)

a) **Copying or moving files or folders** ☐

b) **Using *word* processing software** ☐

c) **Creating presentations or documents integrating text, pictures, tables or charts** ☐

d) **Using spread sheet software** ☐

If the answer is „Yes" -> go to d ☐

d1) **Using its advanced functions to organise and analyse data, such as sorting, filtering, using formulas, creating charts** ☐

e) **Using software to edit photos, video or audio files** ☐

f) **Writing code in a programming language** ☐

———→ **Go to G1**

MODULE 1.G: RESPONDENTS' BACKGROUND INFORMATION

G1. Age ☐☐

G2. Sex

    Man ☐

    Woman ☐

G3. Educational attainment

    Primary education

    Without education, 1–3 grades of primary education ☐

      4–7 grades of primary school ☐

      Primary education (8 grades) ☐

    Secondary education

    Secondary vocational education, grammar school ☐

      Specialisation after secondary education, highly qualified workers' education ☐

    Tertiary education

      High school ☐

      Faculties/higher school /academy ☐

      Master ☐

      Doctoral ☐

G4. Employment situation

    Employee ☐

    Unemployed ☐

    Student ☐

    Other not in the labour force (retired, inactive, in compulsory military service) ☐

G5. Number of household members ☐☐

G6. Of which, number of children aged under 18 ☐☐

G7. Household income (average net monthly income)

    Up to 300 euros ☐

    From 300 to 600 euros ☐

    More than 600 euros ☐

USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE REPUBLIC OF SERBIA, 2017

ENTERPRISES

2.1. METHODOLOGY

Survey period	• The survey was carried out from 15th of May to 31st of May 2017
Type of survey	• Telephone interview
Sample size	• 1655 enterprises
Target population[1]	• Enterprises with 10 and more employees • Section C: Manufacturing • Sections D and E: Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities • Section F: Construction • Section G: Wholesale and retail trade; repair of motor vehicles and motorcycles • Section H: Transportation, storage and communications • Section I: Accommodation and food service activities • Section J: Information and communication • Sections L and M: Real estate activities; Professional, scientific and technical activities • Sections N and Division 95: Administrative and support service activities; Repair of computers • Banks and insurance companies
Type of sample	• Stratified sample
Geographic scope	• Territory of the Republic of Serbia (without AP Kosovo and Metohija)

[1] Since 2011, the Classification of Activities has been in use according to the Regulation of the Classification of Activities („Official Journal of the RS", No 54/10). This classification is harmonised with NACE rev.2.

2.2. SAMPLE

The survey on ICT usage in enterprises was carried out on a representative sample of 1655 enterprises on the territory of the Republic of Serbia. The response rate was 92.9% (1538 enterprises).

Sample (enterprises)		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Activity	Manufacturing	265	190	145	277	177	146	600
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	23	29	21	36	23	14	73
	Construction	33	29	30	36	23	33	92
	Wholesale and retail trade; repair of motor vehicles and motorcycles	114	65	40	92	62	65	219
	Transportation and storage	30	26	24	31	20	29	80
	Accommodation and food service activities	69	32	3	41	26	37	104
	Information and communication	86	41	16	53	28	62	143
	Real estate activities; Professional, scientific and technical activities	68	37	10	37	23	55	115
	Administrative and support service activities; Repair of computers	55	27	30	30	25	57	112
Number		743	476	319	633	407	498	1538
Percentage		48.3	30.9	20.7	41.2	26.5	32.4	100

2.3. MAIN FINDINGS

2.3.1. Computers and computer networks in enterprises

The results of the survey indicate that 100% of enterprises on the territory of the Republic of Serbia use a computer for business.

100% of enterprises use computers for business purposes

Graph 2.1. Does your enterprise use computers for business purposes?

97.7%	97.8%	97.8%	98.1%	98.7%	100.0%	100.0%	100.0%	99.8%	100.0%
2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
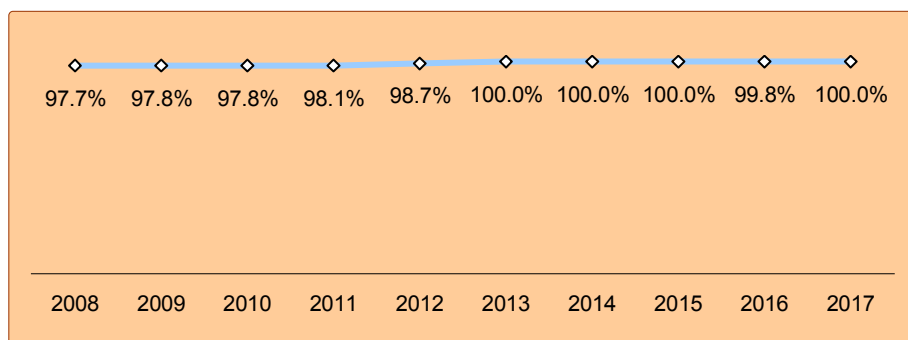
In 30.6% of enterprises 1 - 24% of employees use a computer at least once a week, while in 38.9% of enterprises 75 - 100% of employees use a computer at least once a week

Graph 2.2. Enterprises by the percentage of employees using a computer at least once a week

- 50 - 74% employees 12.2%
- 25 - 49% employees 18.3%
- 75 - 100% employees 38.9%
- 1 - 24% employees 30.6%

Graph 2.3. Did your enterprise use open-source operating system Linux?

Year	YES	NO
2017	19.8%	80.2%
2016	14.5%	85.5%
2015	16.0%	84.0%
2014	17.1%	82.9%
2013	19.2%	80.8%

YES   NO
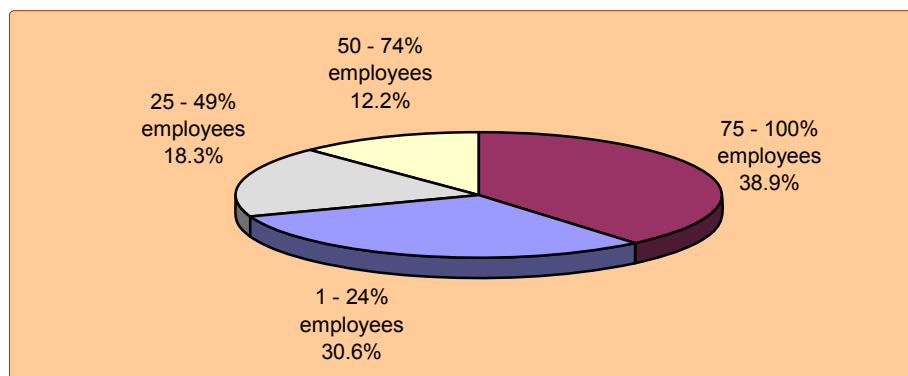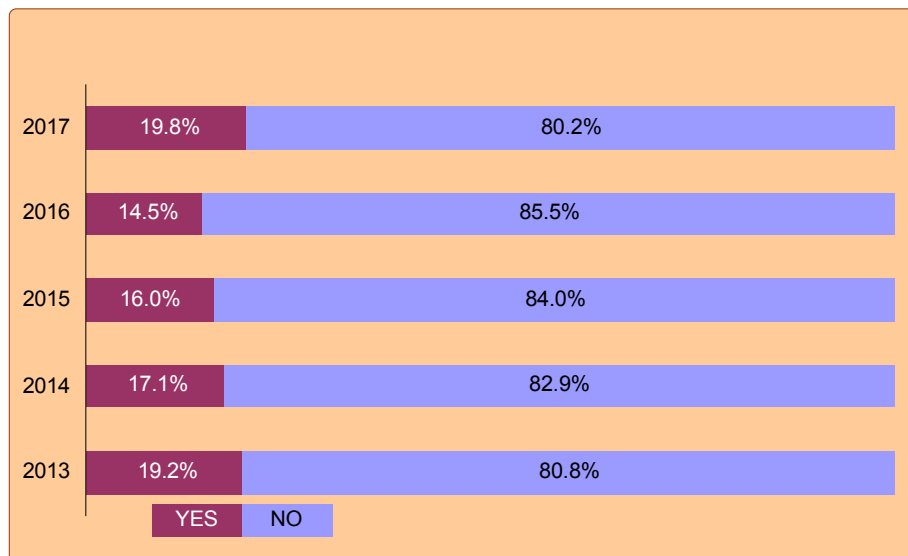
19.8% of enterprises used open-source operating system Linux

Linux was mostly used in large enterprises (40.9%), as well as those located on the territory of Belgrade (23.5%).

Graph 2.4. Does your enterprise exchange regularly information electronically in supply chain management with its suppliers or customers?

Year	YES	NO
2017	48.7%	51.3%

YES   NO
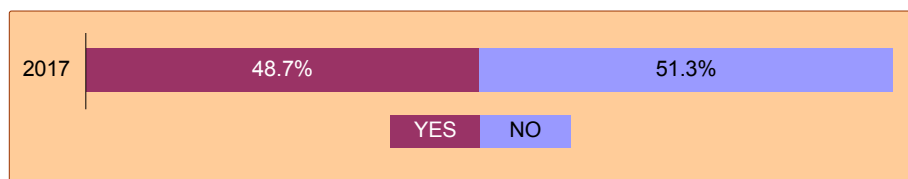
The survey indicates that 48.7% of enterprises exchange regularly information electronically in supply chain management with their suppliers or customers.

2.3.2. Internet in enterprises

In the Republic of Serbia, 99.7% of enterprises have an Internet connection.

> 99.7% of enteprises have an Internet connection

Graph 2.5. Does your enterprise have access to the Internet?

| 91.5% | 94.5% | 96.8% | 97.2% | 97.7% | 99.6% | 100.0% | 99.1% | 99.8% | 99.7% |
| 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
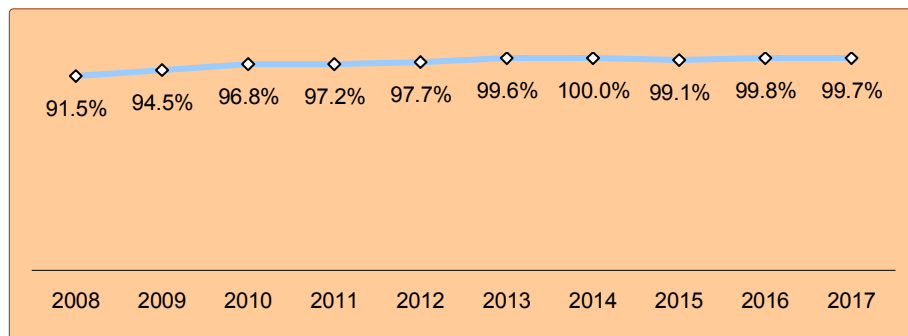
In 33.6% of enterprises 1 - 24% of employees use the Internet at least once a week, while in 36.4% of enterprises 75 - 100% of employees use the Internet at least once a week.

Graph 2.6. Enterprises by the percentage of employees using the Internet at least once a week
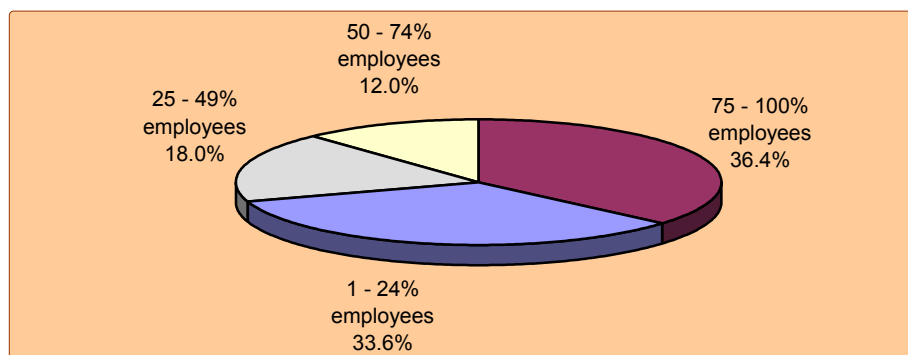
As regard the type of connection, enterprises were given the possibility to choose several answers among the proposed ones.

The results indicate that 98.6% of the total number of enterprises having an Internet connection, have broadband Internet connection.

> 98.6% of enterprises have a broadband Internet connection

Graph 2.7. Broadband Internet connection in enterprises
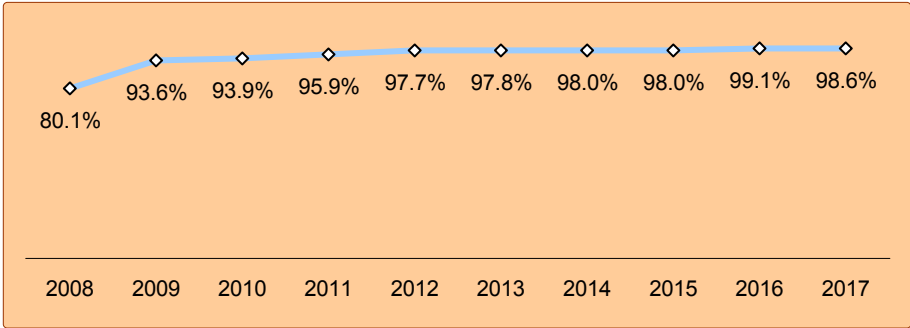
80.1%	93.6%	93.9%	95.9%	97.7%	97.8%	98.0%	98.0%	99.1%	98.6%
2008	2009	2010	2011	2012	2013	2014	2015	2016	2017

Graph 2.8. What is the maximum contracted speed of the Internet connection in your enterprise?

At least 10, but less than 30 Mbit/s	42.4%
At least 30, but less than 100 Mbit/s	29.1%
At least 2, but less than 10 Mbit/s	22.0%
At least 100 Mbit/s	5.3%
Less than 2 Mbit/s	1.2%
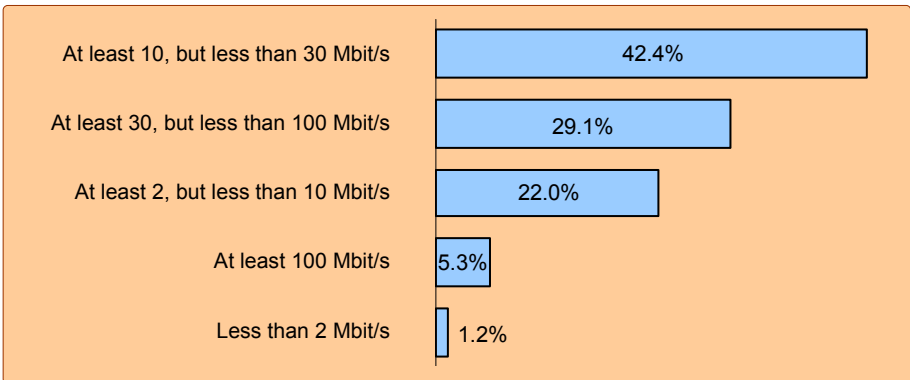
Graph 2.9. Are fixed connection(s) to the Internet sufficient for your business needs?

2017	93.7%	6.3%

YES   NO
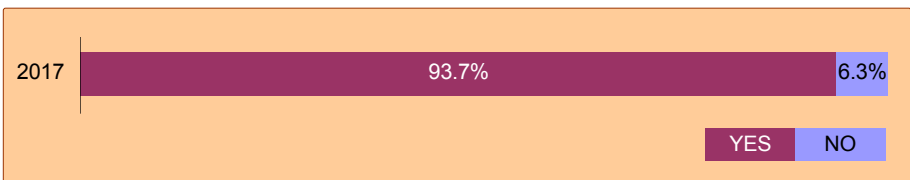
2.3.3. Use of a mobile connection to the Internet
for business purposes

On the territory of the Republic of Serbia 81.9% of enterprises use a mobile broadband Internet connection (3G or 4G) using portable devices (smartphone, laptop, tablet, etc.).

Graph 2.10. Does your enterprise use a mobile broadband Internet connection (3G or 4G) using portable devices?
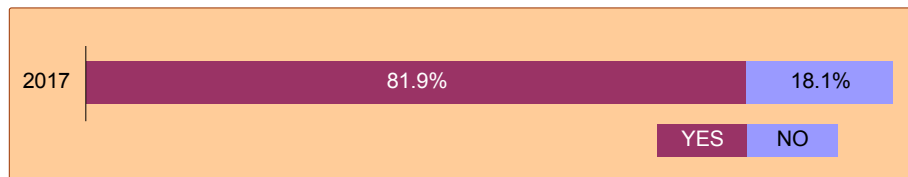
81.9% of enterprises use a mobile broadband Internet connection (3G or 4G) using portable devices

The analysis of enterprises by size indicates that large enterprises are the major users of mobile broadband Internet connections via portable devices (94.2%).

In 67.9% of enterprises from 1 to 24% of employees use portable devices for business purposes, while in 10.4% of enterprises from 75 to 100% of employees use portable devices for business purposes.

Graph 2.11. Enterprises by the percentage of employees using portable devices for business purposes?
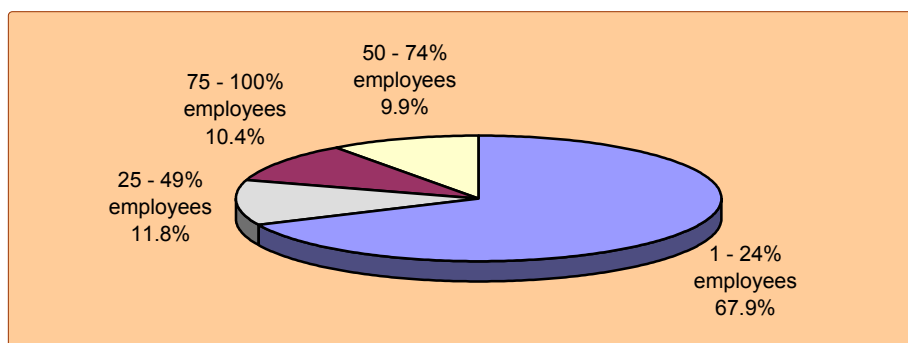
2.3.4. Website

There are 80.4% of enterprises that have a website, which is a slight decrease of 0.4% in relation to 2016 and increase of 5.2% in relation to 2015.

When observing the structure of enterprises by size classes, the following results are obtained:

- 93.6% of large enterprises have a website;
- 92.1% of medium enterprises have a website;
- 76.9% of small enterprises have a website.

> 80.4% of enterprises have a website

There are differences depending on the territory. In Belgrade there are 85.3% of enterprises that have a Website, in Vojvodina 81.7%, and in Central Serbia 74.0%.

Graph 2.12. Does your enterprise have a website?
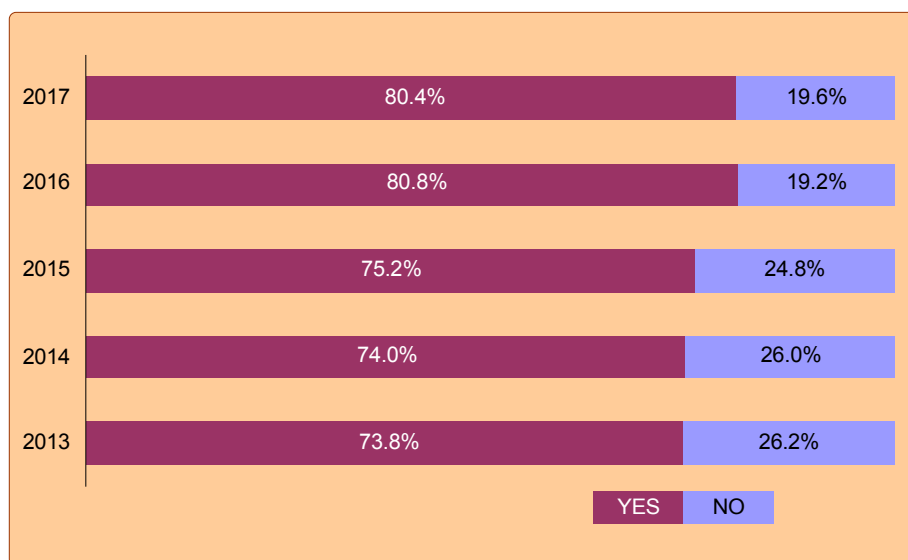
Website available in enterprises, by activities:

- Information and communication (96.7%)
- Administrative and support service activities; Repair of computers (94.2%)
- Real estate activities; Professional, scientific and technical activities (86.4%)
- Manufacturing (85.1%)
- Accommodation and food service activities (83,2%)
- Wholesale and retail trade; repair of motor vehicles and motorcycles (74.1%)
- Construction (73.0%)
- Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities (71.3%)
- Transportation and storage (71.1%)

Enterprises having a Website provide mostly the following services:

- Description of goods or services, pricelist (93.0%);
- Personalised content in the Website for regular/repeated visitors (85.6%);
- Possibility for visitors to customise or design the products (73.4%).

Graph 2.13. Does your enterprise provide any of the following services via its website?
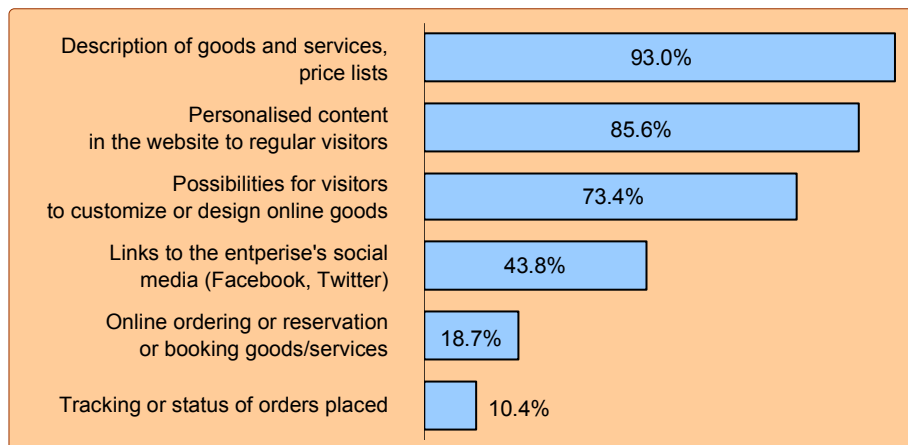
2.3.5. e-commerce

In 2016, 41.4% of enterprises in the Republic of Serbia ordered goods/services over the Internet, being an increase of 0.4% in relation to 2015 and an increase of 1.1% compared to 2014.

When observing the structure of enterprises by size classes, the following results are obtained:

- 59.6% of large enterprises ordered goods/services over the Internet;
- 46.5% of medium enterprises ordered goods/services over the Internet;
- 39.3% of small enterprises ordered goods/services over the Internet.

41.4% of enterprises ordered goods/services over the Internet in 2016

Graph 2.14. Did your enterprise order goods/services over the Internet?

Year	YES	NO
2016	41.4%	58.6%
2015	41.0%	59.0%
2014	40.3%	59.7%
2013	40.4%	59.6%
2012	40.2%	59.8%

YES   NO
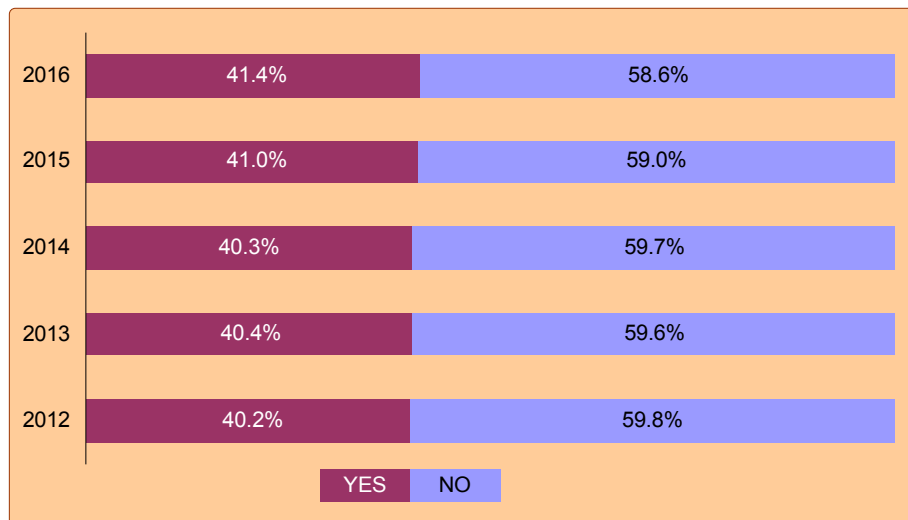
The results of the survey indicate that only 23.8% of enterprises received, during 2016, orders (excluding manually-typed e-mails) over the Internet.

23.8% of enterprises received orders over the Internet in 2016

Graph 2.15. Did your enterprise receive orders over the Internet?
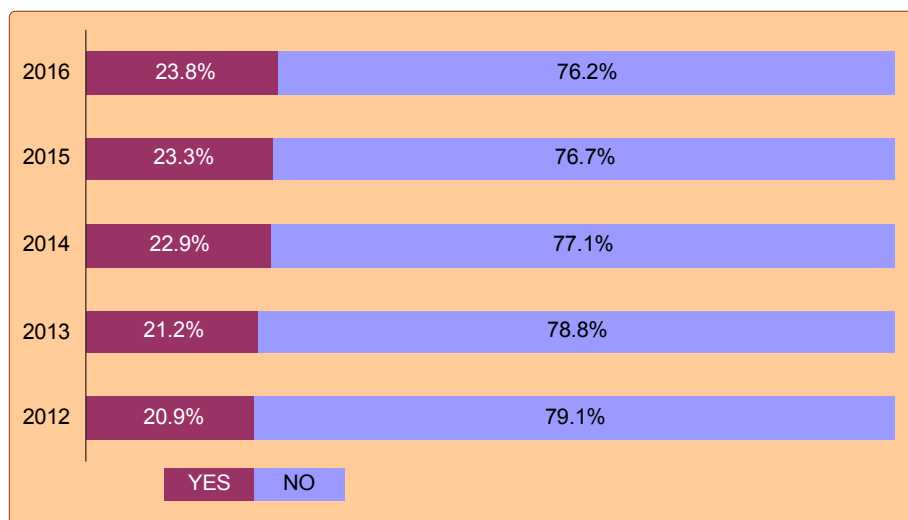
Year	YES	NO
2016	23.8%	76.2%
2015	23.3%	76.7%
2014	22.9%	77.1%
2013	21.2%	78.8%
2012	20.9%	79.1%

YES   NO

When observing the structure of enterprises by size classes, the following results are obtained:

- 41.0% of large enterprises received orders over the Internet;
- 27.7% of medium enterprises received orders over the Internet;
- 22.0% of small enterprises received orders over the Internet.

To the question about the percentage of the total turnover resulting from orders received over the Internet, the enterprises gave the following answers:

- „Less than 24%" (79.6% of enterprises)
- „More than 24%, and less than 50%" (7.4% of enterprises)
- „More than 50%, and less than 75%" (8.3 % of enterprises)
- „75 % and more" (4.7% of enterprises).

**Graph 2.16. Percentage of the total turnover in 2016
resulting from orders received over the Internet**
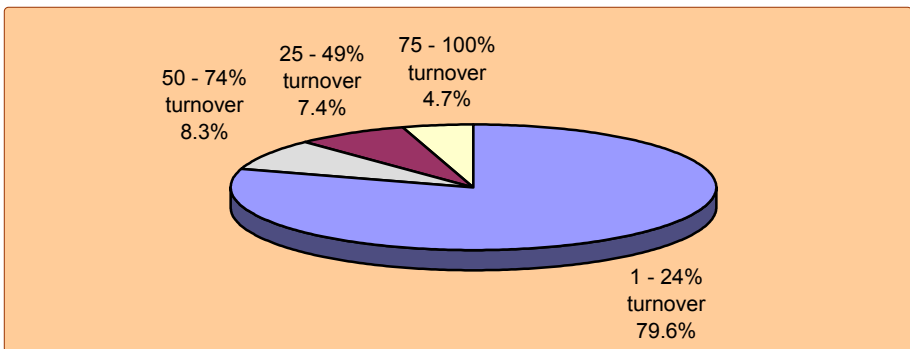
2.3.6. Enterprises and social media

Social media are more available in enterprises for business use, which is backed by the results of the survey indicating that 39.2% of enterprises used any of the social media for business use.

**Graph 2.17. Did your enterprise use any of the following social media
for business purposes?**
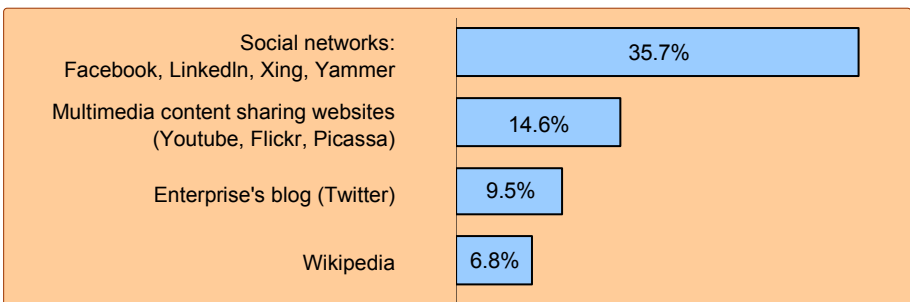
2.3.7. Use of cloud computing services

There are 9.3% of enterprises that pay cloud computing services over the Internet.

Cloud services imply ICT services that are accessed over the Internet for the purpose of using software, storage space, etc. The services have the following characteristics

- delivered from servers and service providers;
- can be used on-demand by the user;
- are paid per usage and capacity.

9.3% of enterprises pay cloud computing services

Graph 2.18. Does your enterprise pay cloud computing services over the Internet?
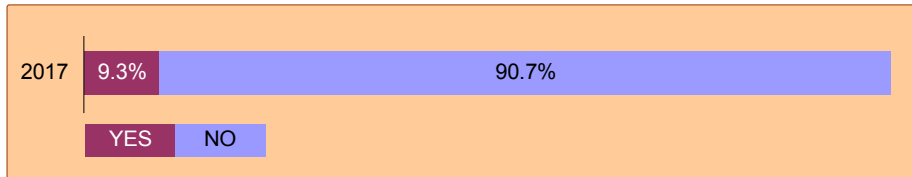
2.4. SURVEY RESULTS

MODULE 2.A: Use of computers[1]

A1: Does your enterprise use computers for business purposes?

In percentages

Enterprises	Size class			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES							
Manufacturing	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Construction	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Wholesale and retail trade; repair of motor vehicles and motorcycles	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Transportation and storage	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Accommodation and food service activities	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Information and communication	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Real estate activities; Professional, scientific and technical activities	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Administrative and support service activities; Repair of computers	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

A2: Percentage of employees who use computers (at least once per week)

In percentages

	Enterprises						
	Size class			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Srbija	Vojvodina	Belgrade	
1- 24%	28.5	40.1	28.4	41.4	34.3	18.6	30.6
25- 49%	17.8	18.7	26.4	19.0	15.8	19.3	18.3
50-74%	11.2	15.9	14.5	12.3	13.2	11.5	12.2
75-100%	42.4	25.3	30.8	27.3	36.6	50.6	38.8

[1] The results in tables A2 and A3 refer only to enterprises that answered YES to question A1.

A3: Did your enterprise use open-source operating system Linux?

In percentages

Enterprises		Size class			Region			Total
		Small (10–49)	Medium (50–249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Manufacturing	15.6	21.0	32.5	16.3	12.3	27.1	17.8
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and	6.1	27.1	39.7	25.3	3.4	33.3	18.4
	Construction	6.2	26.8	33.2	13.3	12.8	8.3	11.1
	Wholesale and retail trade; repair of motor vehicles and motorcycles	17.2	38.5	49.1	12.6	22.5	25.2	20.6
	Transportation and storage	21.9	30.2	57.3	30.8	4.0	38.5	24.7
	Accommodation and food service activities	7.4	13.7	100.0	9.2	9.8	8.8	9.1
	Information and communication	46.7	52.1	85.0	37.2	56.8	50.3	49.1
	Real estate activities; Professional, scientific and technical activities	17.4	26.3	60.6	28.5	27.4	14.7	19.2
	Administrative and support service activities; Repair of computer	18.9	20.5	26.4	38.3	21.8	14.2	19.9
Total		17.0	27.4	40.9	17.9	16.9	23.5	19.8

MODULE 2.B: ICT specialist and skills

B1: Does your enterprise employ ICT specialists?

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Manufacturing	10.7	35.0	80.5	17.0	21.5	25.5	20.3
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	13.6	42.9	77.5	28.0	32.7	49.5	32.2
	Construction	4.6	30.2	69.1	8.9	4.7	18.1	11.8
	Wholesale and retail trade; repair of motor vehicles and motorcycles	15.1	49.3	81.7	10.1	27.3	25.0	20.9
	Transportation and storage	16.3	32.0	100.0	12.8	6.3	52.4	22.4
	Accommodation and food service activities	15.7	31.9	50.0	13.5	11.9	22.0	18.0
	Information and communication	71.3	83.3	100.0	65.7	58.4	82.4	74.4
	Real estate activities; Professional, scientific and technical activities	9.7	63.3	69.7	14.4	7.1	21.9	18.0
	Administrative and support service activities; Repair of computers	24.9	39.9	57.9	21.0	38.3	30.4	30.9
Total		15.7	41.7	79.1	15.9	21.9	30.1	23.0

B2: Did your enterprise provide any type of training to develop ICT related skills of the persons employed during 2016?

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Training of ICT specialists								
Activity	Manufacturing	6.4	21.5	54.7	8.9	12.7	19.9	12.6
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	2.9	17.5	37.2	13.5	11.3	11.1	12.4
	Construction	-	15.3	41.3	5.4	2.4	4.7	4.4
	Wholesale and retail trade; repair of motor vehicles and motorcycles	4.8	31.4	35.6	2.6	12.0	11.5	8.8
	Transportation and storage	3.5	22.4	54.2	5.2	5.0	17.1	8.6
	Accommodation and food service activities	6.8	18.2	50.0	9.1	10.0	8.0	8.6
	Information and communication	49.7	63.3	85.0	52.0	32.2	60.7	53.3
	Real estate activities; Professional, scientific and technical activities	0.9	22.9	30.3	5.6	4.5	4.0	4.4
	Administrative and support service activities; Repair of computers	13.1	19.7	31.7	12.2	28.5	12.1	16.2
Total		7.0	24.3	47.6	8.1	11.7	15.2	11.8
Training for other persons employed								
Activity	Manufacturing	32.5	36.0	69.2	27.4	35.4	51.1	35.3
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	19.6	38.0	45.3	21.4	35.9	51.0	30.1
	Construction	-	22.9	55.1	8.0	11.1	2.3	6.3
	Wholesale and retail trade; repair of motor vehicles and motorcycles	24.7	46.1	59.3	18.2	40.3	28.3	28.1
	Transportation and storage	36.9	32.0	43.7	36.8	35.0	37.4	36.4
	Accommodation and food service activities	28.3	46.8	75.0	28.2	32.8	31.7	31.0
	Information and communication	50.1	37.2	85.0	50.8	52.0	47.9	49.3
	Real estate activities; Professional, scientific and technical activities	18.0	33.4	71.2	38.8	47.6	9.4	20.8
	Administrative and support service activities; Repair of computers	41.6	42.3	55.0	40.8	33.9	47.5	43.1
Total		26.9	37.0	62.2	25.1	35.9	31.0	30.2

B3: Did your enterprise recruit or try to recruit ICT specialists during 2016?

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Manufacturing	4.0	11.2	28.8	4.4	7.8	11.7	7.1
	Electricity, gas, steam and air conditioning supply: Water supply, sewerage, waste management and remediation activities	-	5.4	18.9	-	7.7	11.1	4.1
	Construction	-	6.2	8.5	1.8	2.3	0.8	1.5
	Wholesale and retail trade; repair of motor vehicles and motorcycles	3.6	17.8	44.7	2.7	7.0	8.5	6.3
	Transportation and storage	-	4.5	28.1	-	2.7	3.7	1.9
	Accommodation and food service activities	0.8	13.7	-	1.0	5.8	1.9	2.4
	Information and communication	43.3	54.5	70.0	37.4	51.3	47.3	46.2
	Real estate activities; Professional, scientific and technical activities	-	19.6	18.2	1.8	1.9	3.6	3.0
	Administrative and support service activities; Repair of computers	9.1	12.3	2.8	-	8.7	11.6	9.0
Total		4.8	13.7	27.8	3.8	8.0	10.2	7.4

B4: During 2016, did your enterprise have vacancies for ICT specialists that were difficult to fill?[1]

In percentages

Enterprise		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Manufacturing	59.2	65.4	42.6	55.5	55.8	61.1	57.8
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	-	61.8	-	-	75.0	24.5
	Construction	-	53.3	63.6	100.0	-	63.6	55.6
	Wholesale and retail trade; repair of motor vehicles and motorvehicles	-	15.8	40.9	5.9	6.1	16.7	12.4
	Transportation and storage	-	100.0	37.0	-	84.0	41.7	60.2
	Accommodation and food service activities	-	20.7	-	-	32.5	-	14.5
	Information and communication	55.3	60.3	71.4	56.9	69.0	53.0	57.2
	Real estate activities; Professional, scientific and technical activities	-	30.9	-	50.0	-	30.1	28.6
	Administrative and support service activities; Repair of computers	46.2	-	100.0	-	100.0	17.1	36.9
Total		42.4	43.9	46.4	48.5	44.8	41.2	43.5

[1] The results refer only to enterprises that answered YES to question B3.

B5A: Indicate who mainly performed the following ICT functions in your enterprise during 2016 (employed in the enterprise)

In percentage

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Maintenance of ICT infrastructure								
Activity	Manufacturing	22.2	38.2	72.4	26.1	32.2	30.1	28.8
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	21.0	32.0	62.2	29.1	23.8	48.3	29.5
	Construction	7.0	22.7	61.0	17.1	15.7	5.7	12.0
	Wholesale and retail trade; repair of motor vehicles and motorcycles	17.7	43.8	72.0	17.2	22.6	25.6	22.2
	Transportation and storage	31.7	42.7	90.6	40.2	15.0	52.4	35.9
	Accommodation and food service activities	22.1	36.4	75.0	19.5	12.5	30.3	24.4
	Information and communication	79.3	79.5	95.0	75.1	69.0	85.1	79.9
	Real estate activities; Professional, scientific and technical activities	24.1	65.9	90.9	47.2	30.0	27.2	30.8
	Administrative and support service activities; Repair of computers	31.5	32.8	65.7	29.2	40.8	34.5	35.2
Total		23.5	40.9	72.9	26.3	27.4	31.7	28.7
Support for office software								
Activity	Manufacturing	29.6	52.3	77.7	32.7	52.4	30.2	37.7
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	25.5	68.4	95.8	49.4	44.4	76.2	50.8
	Construction	14.2	60.7	86.1	21.1	27.2	28.3	25.5
	Wholesale and retail trade; repair of motor vehicles and motorcycles	35.9	57.3	81.5	28.7	52.7	40.0	39.6
	Transportation and storage	49.7	62.5	90.6	46.6	45.4	71.5	53.5
	Accommodation and food service activities	32.2	47.8	75.0	35.2	27.6	36.5	34.6
	Information and communication	79.1	73.6	95.0	77.9	62.0	84.6	78.8
	Real estate activities; Professional, scientific and technical activities	24.9	60.0	100.0	50.1	28.7	26.7	30.8
	Administrative and support service activities; Repair of computers	35.0	40.4	62.9	30.5	61.6	31.5	38.8
Total		33.9	56.8	81.2	34.5	48.0	39.8	40.0

B5A: Indicate who mainly performed the following ICT functions in your enterprise during 2016 (employed in the enterprise)

In percentage

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Development of information system (ERP, CRM)								
Activity	Manufacturing	5.1	14.6	25.1	4.6	12.3	11.7	8.5
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	4.5	2.9	17.2	3.6	7.4	2.8	4.8
	Construction	2.6	10.2	19.4	1.3	16.8	0.7	4.6
	Wholesale and retail trade; repair of motor vehicles and motorcycles	4.2	14.7	18.1	1.8	10.2	6.2	5.8
	Transportation and storage	-	15.2	27.1	2.4	2.7	6.0	3.5
	Accommodation and food service activities	13.4	9.2	-	1.0	5.8	20.0	12.7
	Information and communication	37.5	20.2	45.0	26.9	36.8	36.9	34.9
	Real estate activities; Professional, scientific and technical activities	6.1	18.7	31.8	4.0	9.8	8.8	8.2
	Administrative and support service activities; Repair of computers	5.9	4.9	26.2	3.0	17.4	5.1	7.8
Total		6.3	13.3	24.0	3.8	11.9	10.1	8.3
Support for business management software/systems								
Activity	Manufacturing	7.0	21.8	39.3	7.7	17.8	14.8	12.3
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	9.0	4.6	25.3	3.6	14.3	12.2	8.4
	Construction	7.2	31.7	52.8	1.9	18.0	20.5	13.4
	Wholesale and retail trade; repair of motor vehicles and motorcycles	6.5	22.8	39.4	4.3	15.4	9.3	9.3
	Transportation and storage	3.9	18.6	46.9	4.1	12.7	8.4	8.0
	Accommodation and food service activities	13.4	25.6	50.0	3.1	7.9	22.8	15.2
	Information and communication	45.7	40.5	60.0	41.1	36.8	49.6	45.4
	Real estate activities; Professional, scientific and technical activities	10.6	26.8	10.6	9.7	9.8	14.5	12.9
	Administrative and support service activities; Repair of computers	7.6	9.9	31.7	15.8	17.4	6.1	10.4
Total		9.2	22.1	39.7	6.9	16.6	15.8	12.8

B5A: Indicate who mainly performed the following ICT functions in your enterprise during 2016 (employed in the enterprise)

In percentage

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Development of web solutions								
Activity	Manufacturing	17.0	22.1	26.0	14.9	14.8	30.9	18.7
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	9.2	32.5	65.3	20.1	30.1	27.2	24.5
	Construction	3.0	13.2	36.4	9.2	4.1	4.7	6.1
	Wholesale and retail trade; repair of motor vehicles and motorcycles	7.2	26.4	15.3	11.5	13.1	6.7	9.8
	Transportation and storage	7.0	16.9	66.7	3.7	3.1	29.4	11.1
	Accommodation and food service activities	17.8	5.7	25.0	12.3	17.5	17.7	16.3
	Information and communication	56.3	60.7	67.5	54.2	55.0	59.3	57.5
	Real estate activities; Professional, scientific and technical activities	5.7	42.5	71.2	26.7	13.0	7.9	11.8
	Administrative and support service activities; Repair of computers	24.4	24.9	29.2	14.6	18.3	30.5	24.9
Total		13.1	25.3	34.2	14.3	14.8	18.7	16.2
Support for web solutions								
Activity	Manufacturing	19.3	27.9	42.4	15.7	26.6	31.6	22.6
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	13.7	42.3	75.3	29.0	36.7	29.6	31.8
	Construction	5.5	16.1	45.4	9.8	15.7	4.7	9.0
	Wholesale and retail trade; repair of motor vehicles and motorcycles	13.6	25.0	19.9	11.7	18.5	15.8	15.2
	Transportation and storage	7.0	23.1	66.7	6.2	3.1	29.4	12.0
	Accommodation and food service activities	18.7	15.3	25.0	16.9	19.4	18.7	18.4
	Information and communication	55.8	65.9	52.5	62.4	57.7	55.6	57.4
	Real estate activities; Professional, scientific and technical activities	6.8	44.4	71.2	33.8	13.0	7.9	12.9
	Administrative and support service activities; Repair of computers	26.4	33.1	36.7	25.2	25.2	31.0	28.6
Total		16.2	29.7	43.5	16.2	22.1	21.5	19.8

B5A: Indicate who mainly performed the following ICT functions in your enterprise during 2016 (employed in the enterprise)

In percentage

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Security and data protection								
Activity	Manufacturing	23.8	45.7	65.5	29.1	31.9	35.1	31.3
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	21.2	63.1	83.6	53.5	30.7	53.4	45.4
	Construction	9.6	36.0	67.3	19.3	26.1	9.3	16.6
	Wholesale and retail trade; repair of motor vehicles and motorcycles	23.3	47.2	59.0	30.2	25.0	26.1	27.1
	Transportation and storage	19.6	54.5	100.0	21.2	33.1	33.4	28.5
	Accommodation and food service activities	23.4	35.1	75.0	17.3	23.7	29.4	25.4
	Information and communication	71.6	75.3	100.0	69.4	55.2	80.5	73.3
	Real estate activities; Professional, scientific and technical activities	18.9	66.9	90.9	39.5	26.8	23.5	26.6
	Administrative and support service activities; Repair of computers	24.7	37.6	62.9	25.3	43.2	27.2	30.8
Total		24.0	49.1	70.5	30.1	30.4	30.8	30.5

B5B: Indicate who mainly performed the following ICT functions in your enterprise during 2016 (external persons)

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Maintenance of ICT infrastructure								
Activity	Manufacturing	76.7	61.8	26.6	73.8	65.0	69.9	70.4
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	79.0	68.0	37.8	70.9	76.2	51.7	70.5
	Construction	93.0	70.2	39.0	82.9	84.3	91.2	86.7
	Wholesale and retail trade; repair of motor vehicles and motorcycles	82.3	56.2	28.0	82.8	77.4	74.4	77.8
	Transportation and storage	68.3	57.3	9.4	59.8	85.0	47.6	64.1
	Accommodation and food service activities	74.5	63.6	25.0	80.5	87.5	64.5	72.6
	Information and communication	20.7	20.5	5.0	24.9	31.0	14.9	20.1
	Real estate activities; Professional, scientific and technical activities	75.9	34.1	9.1	52.8	70.0	72.8	69.2
	Administrative and support service activities; Repair of computers	68.5	67.2	34.3	70.8	59.2	65.5	64.8
Total		76.1	58.4	26.7	73.7	71.6	67.7	70.8
Support for office software								
Activity	Manufacturing	67.9	46.1	21.4	65.3	45.0	67.4	60.1
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	74.5	31.6	4.2	50.6	55.6	23.8	49.2
	Construction	85.8	39.3	13.9	78.9	72.8	71.7	74.5
	Wholesale and retail trade; repair of motor vehicles and motorcycles	61.1	29.8	15.5	71.3	34.9	57.4	56.1
	Transportation and storage	50.3	37.5	6.2	53.1	54.6	28.5	46.4
	Accommodation and food service activities	67.8	49.1	25.0	64.8	70.3	63.5	65.1
	Information and communication	15.8	21.8	5.0	20.7	27.7	11.2	16.4
	Real estate activities; Professional, scientific and technical activities	70.3	32.5	-	49.9	46.5	72.2	64.1
	Administrative and support service activities; Repair of computers	63.8	54.8	34.7	64.1	34.0	68.5	59.3
Total		63.7	39.1	17.5	64.6	45.6	58.4	57.3

B5B: Indicate who mainly performed the following ICT functions in your enterprise during 2016 (external persons)

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Development of business information system (ERP, CRM)								
Activity	Manufacturing	5.1	14.6	25.1	4.6	12.3	11.7	8.5
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	4.5	2.9	17.2	3.6	7.4	2.8	4.8
	Construction	2.6	10.2	19.4	1.3	16.8	0.7	4.6
	Wholesale and retail trade; repair of motor vehicles and motorcycles	4.2	14.7	18.1	1.8	10.2	6.2	5.8
	Transportation and storage	-	15.2	27.1	2.4	2.7	6.0	3.5
	Accommodation and food service activities	13.4	9.2	-	1.0	5.8	20.0	12.7
	Information and communication	37.5	20.2	45.0	26.9	36.8	36.9	34.9
	Real estate activities; Professional, scientific and technical activities	6.1	18.7	31.8	4.0	9.8	8.8	8.2
	Administrative and support service activities; Repair of computers	5.9	4.9	26.2	3.0	17.4	5.1	7.8
Total		6.3	13.3	24.0	3.8	11.9	10.1	8.3
Support of business management software/systems								
Activity	Manufacturing	23.8	29.1	42.1	16.4	42.7	25.9	26.1
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	40.4	38.6	26.4	12.5	73.0	49.0	38.4
	Construction	47.1	28.7	38.2	4.2	73.3	59.3	43.3
	Wholesale and retail trade; repair of motor vehicles and motorcycles	34.3	45.4	59.3	26.3	79.1	19.3	36.3
	Transportation and storage	32.3	31.5	50.0	36.5	40.4	20.2	33.0
	Accommodation and food service activities	38.8	43.9	50.0	15.7	18.8	56.5	39.6
	Information and communication	19.0	39.5	35.0	17.8	2.9	31.3	23.0
	Real estate activities; Professional, scientific and technical activities	41.2	37.8	27.3	21.1	26.1	49.0	40.5
	Administrative and support service activities; Repair of computers	12.6	28.5	20.6	27.0	15.1	13.8	16.2
Total		31.8	34.4	41.4	19.5	52.2	31.8	32.6

B5B: Indicate who mainly performed the following ICT functions in your enterprise during 2016 (external persons)

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Development of web solutions								
Activity	Manufacturing	64.2	62.8	62.0	65.4	67.0	56.7	63.8
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	45.6	55.1	34.7	55.2	39.7	49.0	48.9
	Construction	73.6	78.1	53.8	64.7	70.0	83.2	73.7
	Wholesale and retail trade; repair of motor vehicles and motorcycles	71.1	61.8	80.1	50.3	68.9	84.9	70.1
	Transportation and storage	58.0	78.7	33.3	46.3	76.8	61.0	60.1
	Accommodation and food service activities	70.6	94.3	75.0	65.3	74.0	77.1	73.6
	Information and communication	36.1	39.3	32.5	35.2	37.7	36.5	36.5
	Real estate activities; Professional, scientific and technical activities	81.5	55.6	28.8	49.6	63.5	87.4	77.1
	Administrative and support service activities; Repair of computers	69.9	68.9	60.5	60.2	74.8	68.6	68.8
Total		67.0	63.9	58.0	58.1	66.5	73.0	66.1
Support for web solutions								
Activity	Manufacturing	61.0	57.2	48.5	63.9	54.6	56.0	59.4
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	41.1	45.3	24.7	46.3	33.0	46.6	41.6
	Construction	71.1	75.2	44.8	64.1	58.4	83.2	70.9
	Wholesale and retail trade; repair of motor vehicles and motorcycles	60.1	63.2	77.3	44.4	63.5	71.1	60.9
	Transportation and storage	58.0	72.5	33.3	43.8	76.8	61.0	59.2
	Accommodation and food service activities	69.7	84.7	75.0	60.7	72.1	76.1	71.6
	Information and communication	35.0	34.1	47.5	26.9	28.5	40.2	35.3
	Real estate activities; Professional, scientific and technical activities	79.5	54.8	28.8	43.5	63.5	86.2	75.4
	Administrative and support service activities; Repair of computers	67.9	60.7	55.8	49.6	67.9	68.6	65.4
Total		62.0	59.6	50.6	54.5	58.8	68.5	61.1

B5B: Indicate who mainly performed the following ICT functions in your enterprise during 2016 (external persons)

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Security and data protection								
Activity	Manufacturing	71.2	52.8	34.0	69.5	60.6	60.3	64.8
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	78.8	36.9	16.4	46.5	69.3	46.6	54.6
	Construction	88.9	64.0	30.0	77.4	73.9	90.4	82.1
	Wholesale and retail trade; repair of motor vehicles and motorcycles	76.6	49.3	39.6	69.8	72.6	73.9	72.3
	Transportation and storage	73.0	43.8	-	78.1	56.9	57.1	65.3
	Accommodation and food service activities	70.6	64.9	25.0	80.5	67.3	65.4	69.5
	Information and communication	24.1	22.9	-	27.2	35.5	17.4	23.0
	Real estate activities; Professional, scientific and technical activities	75.4	33.1	9.1	56.1	50.3	76.5	68.6
	Administrative and support service activities; Repair of computers	71.1	62.4	32.3	67.7	47.1	72.8	65.7
Total		72.8	49.5	28.4	68.5	63.2	67.3	66.7

MODULE 2.C: Access to and use of the Internet[1]

C1: Does your enterprise have access to the Internet?

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activities	Manufacturing	98.8	100.0	100.0	98.7	99.3	100.0	99.2
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Construction	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Wholesale and retail trade; repair of motor vehicles and motorcycles	100.0	97.9	100.0	100.0	98.9	100.0	99.7
	Transportation and storage	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Accommodation and food service activities	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Information and communication	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Real estate activities; Professional, scientific and technical activities	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Administrative and support service activities	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total		99.7	99.6	100.0	99.4	99.5	100.0	99.7

C2: Percentage of employees who use the Internet for business purposes

In percentages

	Enterprises						Total
	Size class			Region			
	Small (10-49)	Secondary (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
1- 24%	31.1	42.7	38.8	43.7	38.6	21.4	33.6
25- 49%	17.5	18.9	23.2	18.8	14.6	19.5	18.0
50-74%	11.4	14.5	12.5	11.7	13.4	11.3	12.0
75-100%	40.0	23.8	25.5	25.8	33.4	47.8	36.4

[1] The results in tables C2 and C11 refer only to enterprises that answered YES to question C1.

C3: Does your enterprise use DSL or any other fixed broadband Internet connection (ADSL, cable Internet, public WiFi)?

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activities	Manufacturing	99.2	96.2	97.1	100.0	94.1	100.0	98.3
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation	100.0	100.0	96.7	99.5	100.0	100.0	99.7
	Construction	100.0	100.0	96.9	100.0	100.0	99.7	99.9
	Wholesale and retail trade; repair of motor vehicles and motorcycles	97.3	99.5	100.0	100.0	90.5	100.0	97.7
	Transportation and storage	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Accommodation and food service activities	99.2	98.1	75.0	96.4	100.0	99.6	98.9
	Information and communication	97.6	100.0	100.0	90.0	100.0	100.0	98.1
	Real estate activities; Professional, scientific and technical activities	100.0	99.0	100.0	99.1	100.0	100.0	99.9
	Administrative and support service activities; Repair of computers	98.4	100.0	100.0	92.7	100.0	100.0	98.8
Total		98.7	98.2	98.0	99.4	95.4	99.9	98.6

C4: What is the maximum contracted speed of the Internet connection in your enterprise?[1]

In percentages

	Enterprises						
	Size class			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Less than 2 Mbit/s	1.3	0.8	0.2	1.6	0.2	1.4	1.2
At least 2, but less than 10 Mbit/s	23.2	19.1	10.6	36.9	17.2	11.7	22.0
At least 10, but less than 30 Mbit/s	42.6	43.3	35.9	42.7	60.3	31.2	42.4
At least 30, but less than 100 Mbit/s	28.4	29.5	40.9	14.7	18.1	48.7	29.1
At least 100 Mbit/s	4.5	7.2	12.3	4.1	4.1	7.0	5.3

[1] The results refer only to enterprises that answered YES to question C3.

C5: Is the speed of your fixed connection(s) to the Internet sufficient for the actual needs of the enterprise?[1]

In percentage

Enterprises		Size class			Region			Total
		Small (10–49)	Medium (50–249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
		YES						
Activity	Manufacturing	92.1	91.4	90.5	90.5	92.6	93.5	91.8
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	92.6	89.6	84.2	89.9	92.4	87.8	90.5
	Construction	97.0	92.2	89.8	90.8	96.5	99.8	95.9
	Wholesale and retail trade; repair of motor vehicles and motorcycles	94.4	91.4	98.4	92.4	95.0	95.0	94.2
	Transportation and storage	94.3	95.5	93.8	86.6	99.1	100.0	94.5
	Accommodation and food service activities	98.2	93.5	100.0	99.0	91.5	99.0	97.6
	Information and communication	95.2	92.0	95.0	92.5	86.1	98.1	94.7
	Real estate activities; Professional, scientific and technical activities	93.9	97.6	90.9	91.5	76.4	99.8	94.4
	Administrative and support service activities; Repair of computers	94.0	93.5	97.6	89.9	86.9	98.5	94.3
Total		94.1	92.1	92.6	91.0	92.6	96.7	93.7

[1] The results refer only to enterprises that answered YES to question C3.

C6: Does your enterprise use a mobile broadband connection to the Internet (3G or 4G) using mobile devices (smartphone, laptop, tablet…)?

In percentages

Enterprises		Size class			Region			Total
		Small (10–49)	Medium (50–249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Manufacturing	77.4	84.8	94.7	78.1	77.4	87.3	80.1
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	56.2	78.7	85.8	78.0	55.2	69.5	68.9
	Construction	73.5	93.9	90.1	76.9	70.6	82.7	77.9
	Wholesale and retail trade; repair of motor vehicles and motorcycles	78.2	88.9	98.6	64.6	77.9	92.1	80.0
	Transportation and storage	83.5	92.1	100.0	88.9	69.9	97.6	85.5
	Accommodation and food service activities	75.3	89.3	100.0	68.0	62.2	86.2	77.3
	Information and communication	96.5	96.6	100.0	95.3	87.9	100.0	96.7
	Real estate activities; Professional, scientific and technical activities	94.4	96.6	90.9	94.7	74.5	100.0	94.6
	Administrative and support activities; Repair of computers	85.7	75.2	87.3	78.9	77.6	88.1	84.0
Total		80.0	87.4	94.2	76.3	75.1	91.4	81.9

C7: Percentage of employees who use portable devices (provided by the enterprise) for business purposes

In percentages

	Enterprises						
	Size class			Region			Total
	Small (10–49)	Secondary (50–249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
1- 24%	66.7	72.5	70.7	74.4	67.5	62.4	67.9
25- 49%	11.5	12.5	13.1	12.5	9.9	12.3	11.8
50-74%	10.7	6.8	8.9	7.1	10.0	12.4	9.9
75-100%	11.0	8.2	7.4	5.9	12.7	12.8	10.4

C8: Does your enterprise have a website?

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Srbija	Vojvodina	Belgrade	
YES								
Activity	Manufacturing	83.3	89.3	88.9	83.6	84.8	88.3	85.1
	Electricity, gas, steam and air conditioning; Water supply, sewerage, waste management and remediation activities	54.8	83.0	100.0	72.8	69.8	69.5	71.3
	Construction	65.9	98.4	93.8	71.1	74.1	73.9	73.0
	Wholesale and retail trade; repair of motor vehicles and motorcycles	70.6	93.5	98.6	61.8	80.9	79.0	74.1
	Transportation and storage	64.8	95.5	100.0	56.7	80.0	81.0	71.1
	Accommodation and food service activities	81.6	95.5	75.0	77.6	91.5	83.0	83.2
	Information and communication	96.1	98.9	100.0	90.5	92.7	100.0	96.7
	Real estate activities; Professional, scientific and technical activities	84.2	98.2	100.0	77.2	69.2	93.2	86.4
	Administrative and support services activities; Repair of computers	94.3	95.1	92.5	74.8	94.1	99.5	94.2
Total		76.9	92.1	93.6	74.0	81.7	85.3	80.4

C9: Does the website of your enterprise provide any of the following services (Your enterprise as Internet service provider)?[1)]

In percentages

Enterprises	Size class			Region			Total
	Small (10–49)	Medium (50–249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Description of goods or services, price lists							
Manufacturing	96.5	97.5	89.8	95.5	97.8	96.4	96.4
Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	100.0	84.7	100.0	85.1	100.0	100.0	92.0
Construction	96.1	92.7	68.9	99.3	85.9	94.1	94.0
Wholesale and retail trade; repair of motor vehicles and motorcycles	84.3	96.1	89.9	86.6	78.5	90.4	86.2
Transportation and storage	100.0	88.8	100.0	95.7	97.2	100.0	97.7
Accommodation and food service activities	100.0	98.0	100.0	98.8	100.0	100.0	99.7
Information and communication	87.3	100.0	100.0	95.0	100.0	85.5	90.0
Real estate activities; Professional, scientific and technical activities	94.0	93.8	78.8	94.3	100.0	92.4	93.8
Administrative and support service activities; Repair of computers	97.3	95.4	88.6	91.9	100.0	95.4	96.1
Total	92.6	95.1	89.8	93.5	92.1	93.2	93.0
Online ordering or reservation or booking of goods/services							
Manufacturing	20.9	16.9	12.8	17.5	28.2	13.1	19.4
Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	3.5	3.3	3.4	1.1	-	2.2
Construction	7.0	1.6	11.9	1.2	-	12.9	5.9
Wholesale and retail trade; repair of motor vehicles and motorcycles	20.2	35.6	34.5	24.9	25.9	20.4	23.0
Transportation and storage	17.4	17.7	37.5	5.4	27.9	21.6	18.7
Accommodation and food service activities	40.6	50.0	66.7	51.2	28.8	43.3	42.2
Information and communication	21.8	26.2	47.5	18.5	8.2	29.7	23.6
Real estate activities; Professional, scientific and technical activities	0.9	6.2	30.3	8.2	3.7	0.7	2.2
Administrative and support service activities; Repair of computers	32.1	20.7	-	35.5	26.3	25.4	26.9
Total	18.6	18.7	19.2	17.2	22.2	17.7	18.7

[1)] The results refer only to enterprises that answered YES to question C8.

C9: Does the website of your enterprise provide any of the following services (Your enterprise as Internet service provider)? [1]

In percentages

Enterprises		Size class			Region			Total
		Small (10–49)	Medium (50–249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Possibility for visitors to customize or design online goods								
Delatnost	Manufacturing	80.6	78.9	72.8	72.4	85.6	86.6	79.7
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	27.6	38.8	41.9	10.9	62.8	63.8	35.2
	Construction	41.2	59.4	34.8	13.1	25.9	81.9	45.5
	Wholesale and retail trade; repair of motor vehicles and motorcycles	73.3	73.7	77.0	37.5	84.2	87.2	73.5
	Transportation and storage	54.5	63.4	80.2	43.9	35.2	95.2	57.9
	Accommodation and food service activities	87.6	82.9	100.0	83.8	74.4	92.9	87.0
	Information and communication	81.6	96.4	95.0	91.0	69.6	87.4	84.7
	Real estate activities; Professional, scientific and technical activities	88.4	85.3	69.7	91.5	76.4	89.1	87.6
	Administrative and support service activities; Repair of computers	69.7	78.8	56.9	72.9	74.8	67.6	70.1
Total		73.7	73.5	68.2	56.9	73.5	86.1	73.4
Tracking or status of orders placed								
Activity	Manufacturing	12.4	13.5	8.7	12.2	17.3	7.6	12.5
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	-	3.3	-	1.1	-	0.4
	Construction	7.0	-	11.9	-	-	12.9	5.5
	Wholesale and retail trade; repair of motor vehicles and motorcycles	5.6	21.7	25.4	6.4	3.8	12.8	8.7
	Transportation and storage	17.4	14.1	32.3	3.0	27.9	20.6	17.6
	Accommodation and food service activities	14.4	25.4	66.7	26.4	12.9	13.7	16.4
	Information and communication	13.7	18.0	17.5	11.9	3.6	18.8	14.6
	Real estate activities; Professional, scientific and technical activities	-	5.4	21.2	2.1	2.8	0.7	1.2
	Administrative and support service activities; Repair of computers	20.5	19.0	-	22.5	9.2	20.9	18.2
Total		9.5	12.9	13.8	8.9	10.8	11.3	10.4

[1] The results refer only to enterprise that answered YES to question C8.

C9: Does the website of your enterprise provide any of the following services (Your enterprise as Internet service provider)?[1]

In percentages

Enterprises		Size class			Region			Total
		Small (10–49)	Medium (50–249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Personalised content in the website for regular visitors								
Activity	Manufacturing	84.5	82.8	79.7	80.4	86.3	87.1	83.8
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	78.3	62.2	93.3	65.1	72.2	100.0	71.7
	Construction	89.4	84.2	68.4	75.1	82.0	99.3	87.0
	Wholesale and retail trade; repair of motor vehicles and motorcycles	82.4	90.7	91.5	66.6	72.8	100.0	84.0
	Transportation and storage	77.7	74.7	91.7	54.4	79.0	99.1	77.9
	Accommodation and food service activities	93.6	85.8	100.0	82.3	85.7	99.1	92.6
	Information and communication	93.5	100.0	92.5	94.4	85.1	97.5	94.5
	Real estate activities; Professional, scientific and technical activities	91.8	93.8	100.0	87.4	89.6	93.7	92.2
	Administrative and support service activities; Repair of computers	90.9	100.0	100.0	92.7	90.8	94.6	93.4
Total		85.8	84.7	86.1	75.8	81.4	95.7	85.6
Links to the enterprise's social media profiles (Facebook, Twitter)								
Activity	Manufacturing	33.1	41.6	49.3	34.6	40.0	34.8	36.2
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	11.2	10.8	67.8	7.6	17.6	64.8	17.8
	Construction	21.9	47.2	2.9	20.9	12.6	40.3	27.3
	Wholesale and retail trade; repair of motor vehicles and motorcycles	52.2	54.4	74.4	58.7	56.2	48.6	53.3
	Transportation and storage	19.3	52.4	40.6	44.5	15.2	24.5	27.5
	Accommodation and food service activities	83.1	65.8	100.0	55.3	77.8	92.1	80.8
	Information and communication	76.0	93.7	95.0	81.0	85.0	77.9	79.8
	Real estate activities; Professional, scientific and technical activities	31.6	40.9	60.6	59.1	46.3	26.0	33.6
	Administrative and support service activities; Repair of computers	50.7	63.5	45.7	54.7	67.5	46.1	52.5
Total		42.3	47.0	53.0	41.2	44.1	45.6	43.8

[1] The results refer only to enterprises that answered YES to question C8.

C10: Does your enterprise use any of the following social media ?

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Srbija	Vojvodina	Belgrade	
Social networks (Facebook, LinkedIn, Xing, Yammer)								
Activity	Manufacturing	28.9	33.3	43.9	29.1	36.1	27.7	30.8
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	15.3	12.7	53.3	6.7	25.0	41.2	17.4
	Construction	18.4	21.0	15.3	19.5	13.3	21.2	18.8
	Wholesale and retail trade; repair of motor vehicles and motorcycles	35.4	51.3	79.9	31.8	57.9	32.2	38.4
	Transportation and storage	25.3	54.5	62.5	30.0	32.2	32.6	31.5
	Accommodation and food service activities	74.6	67.5	75.0	52.1	73.0	83.3	73.8
	Information and communication	75.7	77.9	85.0	78.4	85.3	72.8	76.4
	Real estate activities; Professional, scientific and technical activities	18.9	46.1	68.2	27.0	34.6	19.5	23.3
	Administrative and support service activities; Repair of computers	53.4	61.8	42.1	40.9	66.5	51.9	53.7
Total		33.8	39.8	52.1	30.0	43.4	35.8	35.7
Enterprise's blog (Twitter)								
Activity	Manufacturing	9.0	9.2	22.9	5.9	14.9	11.8	9.8
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	1.8	7.8	-	-	12.2	1.5
	Construction	-	13.6	2.7	3.4	-	3.4	2.6
	Wholesale and retail trade; repair of motor vehicles and motorcycles	4.7	14.6	25.7	3.4	2.7	10.5	6.4
	Transportation and storage	2.4	12.4	15.6	6.9	2.7	3.3	4.5
	Accommodation and food service activities	21.7	38.9	75.0	12.1	10.4	34.2	24.4
	Information and communication	28.1	50.8	67.5	29.6	35.0	34.1	33.4
	Real estate activities; Professional, scientific and technical activities	5.2	8.3	27.3	5.1	2.6	7.0	5.9
	Administrative and support service activities; Repair of computers	27.6	13.7	10.7	27.2	18.3	24.5	23.4
Total		8.0	13.0	21.5	6.0	8.7	13.2	9.5

C10: Does your enterprise use any of the following social media ?

In percentages

Enterprises	Size class			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Srbija	Vojvodina	Belgrade	
Multimedia content sharing websites (Youtube, Flickr, Picassa)							
Manufacturing	16.5	18.7	33.2	14.0	23.0	19.7	17.9
Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	1.8	18.9	-	3.6	9.4	2.4
Construction	4.6	11.6	5.4	0.8	2.3	12.1	5.9
Wholesale and retail trade; repair of motor vehicles and motorcycles	8.9	28.1	28.9	5.0	16.2	13.9	11.7
Transportation and storage	3.3	12.4	28.1	8.1	2.7	6.0	5.8
Accommodation and food service activities	21.6	19.8	50.0	13.8	10.4	28.7	21.7
Information and communication	36.1	37.3	65.0	52.7	60.3	25.0	37.4
Real estate activities; Professional, scientific and technical activities	7.6	16.2	78.8	14.7	9.8	8.5	9.7
Administrative and support service activities; Repair of computers	30.3	31.4	18.5	24.3	9.3	38.9	29.3
Total	12.7	19.2	30.1	10.6	16.6	16.8	14.6
Wikipedia							
Manufacturing	12.1	12.9	18.4	4.1	20.8	19.8	12.6
Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	6.1	-	3.9	-	-	26.6	3.2
Construction	4.6	7.1	2.7	-	-	11.9	5.0
Wholesale and retail trade; repair of motor vehicles and motorcycles	0.7	6.5	5.8	1.5	0.7	2.0	1.5
Transportation and storage	3.3	8.0	5.2	8.1	2.3	0.8	4.1
Accommodation and food service activities	7.8	8.3	-	9.4	-	9.6	7.8
Information and communication	7.7	17.0	35.0	19.7	15.2	5.6	10.3
Real estate activities; Professional, scientific and technical activities	2.5	12.0	60.6	14.9	-	3.3	4.5
Administrative and support service activities; Repair of computers	10.1	13.7	2.8	24.3	1.0	9.8	10.0
Total	5.8	9.9	13.1	4.5	8.2	7.9	6.8

C11: Did your enterprise use social media during January 2017 to[1]

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Advertise enterprise's image with pictures or products								
Activity	Manufacturing	22.3	28.3	37.6	24.3	21.5	28.8	24.6
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	4.7	12.7	28.9	4.7	18.2	11.8	10.4
	Construction	4.6	19.3	4.1	3.8	4.7	11.6	7.3
	Wholesale and retail trade; repair of motor vehicles and motorcycles	30.7	48.7	76.2	30.6	55.9	24.1	33.9
	Transportation and storage	24.7	48.3	45.8	34.3	22.2	30.1	29.3
	Accommodation and food service activities	63.8	69.3	100.0	38.8	75.1	72.6	64.8
	Information and communication	55.7	60.2	77.5	61.5	78.0	49.1	57.3
	Real estate activities; Professional, scientific and technical activities	12.0	21.9	47.0	8.6	34.6	9.5	13.9
	Administrative and support service activities; Repair of computers	36.9	60.8	34.3	37.5	69.9	29.5	40.8
Total		26.2	34.5	43.5	24.9	35.8	27.0	28.5
Obtain or respond to customer opinions, reviews, questions								
Activity	Manufacturing	15.4	17.2	27.4	13.7	13.1	26.0	16.5
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	4.5	10.9	24.7	0.5	23.0	5.2	9.1
	Construction	-	8.7	-	0.8	-	3.1	1.6
	Wholesale and retail trade; repair of motor vehicles and motorcycles	19.9	34.9	68.5	23.9	27.3	19.8	22.9
	Transportation and storage	13.1	34.8	26.0	17.1	17.7	16.2	17.0
	Accommodation and food service activities	52.1	53.0	50.0	33.0	75.1	53.1	52.2
	Information and communication	28.8	39.8	62.5	26.2	31.9	33.8	31.9
	Real estate activities; Professional, scientific and technical activities	3.5	10.3	37.9	1.6	17.0	2.5	4.9
	Administrative and support service activities; Repair of computers	37.4	36.0	10.3	30.8	57.8	25.6	34.4
Total		17.1	22.5	32.1	15.4	21.2	19.9	18.7

[1] The results refer only to enterprises that answered YES to one of the statements in question C10.

C11: Did your enterprise use social media during January 2017 to [1]

In percentages

Enterprises	Size class			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Involve customers in developement or innovation of goods or services							
Manufacturing	14.4	14.7	20.8	11.4	10.7	26.4	14.8
Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	5.4	17.5	0.5	10.3	-	3.9
Construction	-	8.7	2.7	0.8	-	3.4	1.7
Wholesale and retail trade; repair of motor vehicles and motorcycles	17.4	20.5	30.6	18.7	19.5	16.8	18.1
Transportation and storage	7.4	34.8	12.5	5.6	15.4	16.6	11.9
Accommodation and food service activities	44.4	42.1	75.0	26.5	57.0	48.1	44.4
Information and communication	22.3	24.2	62.5	17.9	14.4	29.4	24.2
Real estate activities; Professional, scientific and technical activities	-	5.9	27.3	0.7	0.6	1.4	1.2
Administrative and support service activities; Repair of computers	24.2	20.2	2.8	29.0	21.8	19.1	21.4
Total	14.0	16.5	20.9	11.8	13.9	17.9	14.7
Collaborate with business partners or other organisations							
Manufacturing	14.7	12.8	17.9	13.4	11.1	20.4	14.4
Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	1.8	3.9	-	-	9.4	1.1
Construction	4.6	11.6	-	0.8	2.3	11.6	5.7
Wholesale and retail trade; repair of motor vehicles and motorcycles	12.6	19.9	16.9	6.7	6.1	22.6	13.6
Transportation and storage	10.1	16.8	8.3	14.8	-	17.9	11.1
Accommodation and food service activities	22.2	21.7	75.0	36.6	4.5	22.4	22.6
Information and communication	22.5	24.8	42.5	33.9	20.0	21.6	23.6
Real estate activities; Professional, scientific and technical activities	0.7	3.2	28.8	4.7	1.9	0.5	1.4
Administrative and support service activities; Repair of computers	22.3	38.4	4.8	24.5	13.1	27.3	23.3
Total	12.3	14.5	15.2	11.1	7.2	17.8	12.8

[1] The results refer only to enterprises that answered YES to one of the statements in question C10.

C11: Did your enterprise use social media during January 2017 to [1]

In percentages

Enterprises	Size class			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Recruit employees							
Manufacturing	5.9	8.4	13.0	6.5	5.2	9.9	6.9
Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	-	3.9	-	-	2.8	0.3
Construction	4.6	7.1	2.7	-	-	11.9	5.0
Wholesale and retail trade; repair of motor vehicles and motorcycles	8.4	8.9	7.4	5.9	9.3	9.7	8.4
Transportation and storage	-	10.6	8.3	0.7	-	6.0	2.0
Accommodation and food service activities	15.8	14.6	50.0	20.2	13.6	14.9	15.9
Information and communication	14.3	15.9	35.0	25.0	26.3	8.7	15.4
Real estate activities; Professional, scientific and technical activities	-	-	27.3	-	-	0.5	0.3
Administrative and support service activities; Repair of computers	13.5	13.9	13.3	16.7	2.5	17.3	13.5
Total	6.6	8.0	12.0	5.8	5.8	9.1	7.1
Exchange views, opinions or knowledge within the enterprise							
Manufacturing	10.7	12.4	12.7	9.5	11.0	14.9	11.2
Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	5.4	3.9	-	6.9	2.8	2.8
Construction	4.6	7.1	-	-	-	11.6	4.9
Wholesale and retail trade; repair of motor vehicles and motorcycles	4.5	11.1	8.8	6.9	5.5	4.4	5.4
Transportation and storage	9.2	8.0	-	13.0	2.3	9.5	8.6
Accommodation and food service activities	9.5	16.5	-	17.3	-	10.6	10.3
Information and communication	16.5	20.7	35.0	35.3	14.4	13.5	17.9
Real estate activities; Professional, scientific and technical activities	1.5	0.8	28.8	8.6	-	0.5	1.7
Administrative and support service activities; Repair of computers	17.4	21.4	10.7	22.9	9.7	19.2	17.4
Total	7.6	10.9	10.5	8.9	6.8	8.7	8.3

[1] The results refer only to enterprises that answered YES to one of the statements in question C10.

MODULE 2.D: Use of cloud computing services[1)]

D1: Does your enterprise pay cloud services over the Internet?

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Manufacturing	10.9	11.2	25.7	4.8	17.9	18.6	11.8
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	5.4	10.6	-	8.5	2.8	3.4
	Construction	4.6	3.3	13.1	2.2	0.6	9.0	4.7
	Wholesale and retail trade; repair of motor vehicles and motorcycles	6.1	18.4	20.4	3.0	19.3	5.2	8.0
	Transportation and communication	5.7	15.2	31.3	15.1	2.3	5.6	8.3
	Accommodation and food service activities	0.6	20.5	50.0	4.3	1.9	3.7	3.5
	Information and communication	22.1	26.7	45.0	31.2	29.0	19.6	23.7
	Real estate activities; Professional, scientific and technical activities	7.2	4.0	18.2	1.4	16.3	5.7	6.9
	Administrative and support service activities; Repair of computers	9.7	-	16.3	14.4	-	10.8	8.7
Total		8.0	11.6	23.1	5.4	14.2	9.5	9.3

[1)] The results refer only to enterprises that answered YES to question C1.

D2: Does your enterprise pay any of the following cloud computing services used over the Internet (excluding free of charge services)? [1]

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
e-mail								
Activity	Manufacturing	67.0	68.3	70.3	59.3	59.6	80.9	67.7
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste managemetnt and remediation activities	-	100.0	63.2	-	100.0	-	90.1
	Construction	-	100.0	72.4	100.0	-	5.4	20.6
	Wholesale and retail trade; repair of motor vehicles and motorcycles	43.6	25.0	36.4	18.1	48.2	24.8	38.0
	Transportation and storage	-	70.6	43.3	4.5	100.0	78.1	27.2
	Accommodation and food service activities	100.0	86.2	100.0	100.0	-	100.0	90.1
	Information and communication	64.7	51.2	55.6	14.6	90.2	71.2	61.5
	Real estate activities; Professional, scientific and technical activities	79.1	80.0	100.0	50.0	55.9	100.0	79.9
	Administrative and support service activities; Repair of computers	100.0	-	100.0	100.0	-	100.0	100.0
Total		56.6	57.2	64.4	38.9	58.8	65.7	57.5
Office software (Word , Excel)								
Activity	Manufacturing	54.1	59.7	47.9	23.0	54.4	70.8	54.6
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste managemetnt and remediation activities	-	-	68.4	-	9.4	100.0	18.4
	Construction	-	100.0	-	80.0	-	-	13.0
	Wholesale and retail trade; repair of motor vehicles and motorcycles	23.0	6.4	63.6	12.7	25.4	14.8	20.9
	Transportation and storage	-	70.6	36.7	20.7	100.0	13.7	26.1
	Accommodation and food service activities	100.0	66.7	100.0	72.5	100.0	74.0	76.1
	Information and communication	54.6	42.6	44.4	33.4	61.7	55.8	51.6
	Real estate activities; Professional, scientific and technical activities	51.6	60.0	100.0	-	11.8	89.3	53.9
	Administrative and support service activities; Repair of computers	73.5	-	65.9	57.9	-	77.2	72.0
Total		41.9	42.3	50.4	27.4	40.8	52.6	42.8

[1] The results refer only to enterprises that answered YES to question D1.

D2: Does your enterprise pay any of the following cloud computing services used over the Internet (excluding free of charge services)? [1]

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Hosting the enterprise's database(s)								
Activity	Manufacturing	49.5	31.9	37.0	17.4	59.1	40.5	44.0
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste managemetnt and remediation activities	-	100.0	-	-	81.1	-	73.1
	Construction	100.0	100.0	27.6	80.0	100.0	94.6	92.4
	Wholesale and retail trade; repair of motor vehicles and motorcycles	34.0	91.7	62.5	100.0	26.2	85.6	51.9
	Transportation and storage	42.1	11.4	90.0	41.4	-	57.5	41.1
	Accommodation and food service activities	-	88.5	100.0	22.0	100.0	100.0	76.6
	Information and communication	71.3	42.6	61.1	82.3	58.5	59.9	65.2
	Real estate activities; Professional, scientific and technical activities	51.6	20.0	100.0	50.0	-	89.3	50.6
	Administrative and support service activities; Repair of computers	82.7	-	65.9	47.4	-	91.1	79.5
Total		52.7	55.7	51.2	48.3	43.1	65.5	53.2
Storage of files								
Activity	Manufacturing	60.4	48.6	65.7	44.6	67.9	54.4	58.3
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste managemetnt and remediation activities	-	100.0	-	-	81.1	-	73.1
	Construction	100.0	100.0	20.7	80.0	-	97.3	91.7
	Wholesale and retail trade; repair of motor vehicles and motorcycles	54.6	21.1	54.5	100.0	48.2	16.9	45.2
	Transportation and storage	42.1	41.2	63.3	41.4	100.0	35.6	45.3
	Accommodation and food service activities	-	52.9	100.0	22.0	-	74.0	51.1
	Information and communication	60.8	68.2	61.1	72.7	61.7	57.1	62.2
	Real estate activities; Professional, scientific and technical activities	51.6	60.0	100.0	-	11.8	89.3	53.9
	Administrative and support service activities; Repair of computers	73.5	-	82.9	57.9	-	81.6	75.3
Total		59.9	45.7	61.7	56.9	56.7	56.8	56.8

[1] The results refer only to enterprises that answered YES to question D1.

D2: Does your enterprise pay any of the following cloud computing services used over the Internet (excluding free of charge services)? [1]

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Finance or accounting software applications								
Activity	Manufacturing	26.3	43.7	31.4	21.6	55.8	7.6	30.9
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste managemetnt and remediation activities	-	100.0	-	-	81.1	-	73.1
	Construction	-	100.0	-	80.0	-	-	13.0
	Wholesale and retail trade; repair of motor vehicles and motorcycles	11.0	11.7	48.9	80.1	0.8	12.8	13.5
	Transportation and storage	57.9	11.4	20.0	53.7	-	-	38.5
	Accommodation and food service activities	-	44.8	100.0	22.0	100.0	47.9	45.3
	Information and communication	54.8	42.6	27.8	33.9	55.2	56.6	50.5
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	70.0	-	65.9	47.4	-	77.2	69.2
Total		26.6	34.4	33.1	41.8	31.6	20.1	29.0
CRM software								
Activity	Manufacturing	10.2	13.5	15.7	11.8	17.2	5.3	11.6
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste managemetnt and remediation activities	-	100.0	31.6	-	90.6	-	81.6
	Construction	-	-	-	-	-	-	-
	Wholesale and retail trade; repair of motor vehicles and motorcycles	11.0	5.3	-	74.7	-	-	8.7
	Transportation and storage	42.1	11.4	20.0	41.4	-	-	29.7
	Accommodation and food service activities	-	44.8	100.0	22.0	100.0	47.9	45.3
	Information and communication	30.3	4.3	-	46.3	25.1	10.5	23.2
	Real estate activities; Professional, scientific and technical activities	20.9	-	50.0	-	44.1	3.0	20.1
	Administrative and support service activities; Repair of computers	4.3	-	14.6	23.7	-	-	6.3
Total		14.9	14.1	14.4	32.6	15.4	5.0	14.7

[1] The results refer only to enterprises that answered YES to question D1.

D2: Does your enterprise pay any of the following cloud computing services used over the Internet (excluding free of charge services)? [1]

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Computing power to run the enterprise's own software								
Activity	Manufacturing	20.5	5.2	16.4	4.2	22.9	15.6	16.5
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste managemetnt and remediation activities	-	100.0	31.6	-	90.6	-	81.6
	Construction	-	-	-	-	-	-	-
	Wholesale and retail trade; repair of motor vehicles and motorcycles	-	-	-	-	-	-	-
	Transportation and storage	-	11.4	20.0	9.0	-	-	6.5
	Accommodation and food service activities	-	-	-	-	-	-	-
	Information and communication	32.2	4.3	22.2	31.3	31.7	21.1	26.3
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	12.1	-	34.1	36.8	-	8.9	16.3
Total		13.0	7.2	15.1	10.2	15.0	9.7	11.9

[1] The results refer only to enterprises that answered YES to question D1.

D3: Does your enterprise pay any cloud computing services delivered by providers from? [1]

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Secondary (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Shared servers								
Activity	Manufacturing	46.3	26.8	49.4	33.3	34.7	55.1	42.2
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	100.0	100.0	-	100.0	100.0	100.0
	Construction	-	-	31.0	20.0	-	-	3.3
	Wholesale and retail trade; repair of motor vehicles and motorcycles	43.6	55.3	22.7	25.3	48.2	48.4	45.6
	Transportation and storage	57.9	-	56.7	51.4	-	21.9	41.2
	Accommodation and food service activities	-	55.2	-	27.5	-	52.1	39.5
	Information and communication	34.7	21.6	38.9	31.8	66.7	16.2	32.6
	Real estate activities; Professional, scientific and technical activities	79.1	-	100.0	-	44.1	100.0	73.3
	Administrative and support service activities; Repair of computers	75.2	-	48.8	63.2	-	72.7	70.2
Total		46.0	35.4	45.9	36.4	43.9	46.7	43.5
Servers of service providers exclusively reserved for your enterprise								
Activity	Manufacturing	39.3	56.2	47.0	24.7	41.6	56.7	44.1
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	-	31.6	-	9.4	-	8.5
	Construction	100.0	100.0	48.3	80.0	100.0	97.3	94.6
	Wholesale and retail trade; repair of motor vehicles and motorcycles	56.4	70.8	56.8	74.7	51.8	72.6	60.4
	Transportation and storage	57.9	40.8	56.7	55.9	-	64.4	52.8
	Accommodation and food service activities	100.0	21.8	-	50.5	-	26.0	30.8
	Information and communication	50.2	61.4	11.1	38.1	68.3	45.9	49.4
	Real estate activities; Professional, scientific and technical activities	20.9	100.0	100.0	100.0	55.9	6.0	30.0
	Administrative and support service activities; Repair of computers	74.1	-	51.2	10.5	-	91.1	69.7
Total		49.4	58.2	46.2	43.2	47.0	58.9	51.1

[1] The results refer only to enteprises that answered YES to question D1.

MODULE 2.E: Automatic share of information within the enterprise

E1: Does your enterprise use an ERP software package for exchanging information about sales and/or purchases with other functions (finance, planning, marketing...)?

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Manufacturing	17.1	40.9	63.8	17.1	28.8	37.8	25.4
	Electricity, gas, steam and air conditioning supply; Waster supply, sewerage, waste management and remediation activities	2.9	15.8	36.9	11.1	12.3	12.2	11.7
	Construction	6.1	7.4	46.3	6.1	7.0	9.8	7.9
	Wholesale and retail trade; repair of motor vehicles and motorcycles	16.1	35.8	78.5	23.7	15.5	20.0	20.1
	Transportation and storage	8.3	33.0	63.5	14.2	5.0	25.1	14.5
	Accommodation and food service activities	3.0	15.8	50.0	3.9		7.2	5.0
	Information and communication	16.5	22.8	80.0	25.4	12.5	20.7	20.0
	Real estate activities; Professional, scientific and technical activities	6.9	21.5	37.9	22.9	18.9	3.5	9.3
	Administrative and support service activities; Repair of computers	9.8	13.5	26.4	13.6	12.1	11.7	12.1
Total		13.0	30.6	59.2	17.2	17.9	19.1	18.1

E2: Does your enterprise use any software application for managing information about customers (CRM software), that allows to?

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Capture, store and make available to other functions information about customers								
Activity	Manufacturing	11.6	25.5	32.4	10.5	20.9	21.6	16.1
	Electricity, gas, steam and air conditioning supply; Water management, sewerage, waste management and remediation activities	2.9	11.5	14.2	12.5	3.4	-	7.8
	Construction	1.5	4.5	22.8	5.7	2.3	0.8	2.8
	Wholesale and retail trade; repair of motor vehicles and motorcycles	14.2	33.4	50.9	22.3	8.4	19.1	17.5
	Transportation and storage	8.3	22.3	25.0	12.2	-	21.8	11.2
	Accommodation and food service activities	-	6.8	50.0	1.2	-	1.8	1.3
	Information and communication	12.8	8.1	67.5	16.9	9.7	14.7	14.1
	Real estate activities; Professional, scientific and technical activities	3.5	12.2	9.1	3.2	16.3	2.1	4.8
	Administrative and support service activities; Repair of computers	7.7	13.5	15.9	8.2	9.7	9.9	9.6
Total		9.7	21.2	32.4	12.8	11.6	13.5	12.8
Analyse information about customers for marketing purposes (setting prices, making sales promotion, choosing distribution channels, etc.)								
Activity	Manufacturing	10.4	24.0	32.0	12.7	12.2	22.4	14.9
	Electricity, gas, steam and air conditioning supply; Water management, sewerage, waste management and remediation activities	2.9	8.6	14.4	10.6	0.8	5.6	6.5
	Construction	-	7.8	22.8	4.1	2.3	0.8	2.3
	Wholesale and retail trade; repair of motor vehicles and motorcycles	12.3	33.1	48.4	17.4	7.9	19.0	15.8
	Transportation and storage	8.3	17.8	17.7	10.4	-	20.7	10.2
	Accommodation and food service activities	1.4	11.3	50.0	6.0	-	2.8	3.1
	Information and communication	13.7	13.2	57.5	11.8	8.7	18.5	15.3
	Real estate activities; Professional, scientific and technical activities	1.7	14.6	9.1	2.7	9.1	2.3	3.6
	Administrative and support service activities; Repair of computers	8.1	10.2	8.3	4.9	8.7	9.4	8.5
Total		8.6	20.7	30.1	12.1	7.8	13.9	11.7

MODULE 2.F: Sharing supply chain management information electronically

F1: Does your enterprise exchange regularly information electronically in supply chain management with its suppliers or customers?

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Manufacturing	43.9	44.6	50.6	62.4	35.5	19.4	44.5
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	43.6	28.9	38.1	-	73.8	85.4	36.5
	Construction	47.2	63.5	67.1	2.7	49.8	91.5	51.0
	Wholesale and retail trade activities; repair of motor vehicles and motorcycles	67.6	70.6	68.3	25.2	70.4	96.9	68.0
	Transportation and storage	58.7	61.4	52.1	67.0	22.3	86.7	58.8
	Accommodation and food service activities	37.2	58.3	100.0	60.7	13.9	40.2	40.4
	Information and communication	17.3	15.6	50.0	51.7	15.9	8.4	18.3
	Real estate activities; Professional, scientific and technical activities	10.3	4.8	90.9	59.4	-	1.7	10.5
	Administrative and support service activities; Repair of computers	58.3	57.6	63.5	64.0	20.8	73.2	58.7
Total		48.5	48.0	56.9	44.6	42.9	56.2	48.7

F2: How does your enterprise exchange electronic information in supply chain management?[1]

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Via its website or website of business partners								
Activity	Manufacturing	47.2	32.9	27.8	41.4	41.0	53.3	42.5
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	10.3	50.0	49.6	-	31.4	18.9	27.9
	Construction	20.6	15.8	22.7	16.4	39.4	13.8	19.6
	Wholesale and retail activities; repair of motor vehicles and motorcycles	33.5	48.7	54.6	64.0	26.2	34.7	35.9
	Transportation and storage	18.5	31.9	62.0	4.7	55.1	31.8	22.4
	Accommodation and food service activities	35.8	50.7	75.0	29.5	71.7	42.2	39.4
	Information and communcation	34.4	70.5	55.0	16.6	48.0	86.9	41.7
	Real estate activities; Professional, scientific and technical activities	28.8	16.7	76.7	27.9	-	76.7	33.2
	Administrative and support service activities; Repair of computers	50.8	60.8	53.4	25.2	95.3	54.3	52.8
Total		34.9	38.2	42.7	37.8	35.5	34.7	35.9
Via electronic transmission suitable for automated processing (EDI messages, XML, EDIFACT)								
Activity	Manufacturing	45.8	47.2	45.4	57.4	22.0	25.9	46.1
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	14.1	37.3	40.1	-	11.8	57.8	24.7
	Construction	-	4.5	8.6	-	4.7	0.6	1.5
	Wholesale and retail activities; repair of motor vehicles and motorcycles	18.5	39.9	51.9	36.4	44.3	10.3	22.0
	Transportation and storage	18.5	21.8	32.0	-	44.9	33.0	19.6
	Accommodation and food service activities	5.9	-	-	8.0	28.3	-	4.7
	Information and communcation	5.6	29.5	85.0	7.7	12.0	39.4	17.3
	Real estate activities; Professional, scientific and technical activities	-	-	55.0	-	-	55.0	5.9
	Administrative and support service activities; Repair of computers	54.7	22.9	32.8	2.4	88.2	52.5	46.8
Total		24.4	34.3	41.7	39.7	31.7	15.6	27.0

[1] The results refer only to enterprises that answered YES to question F1.

MODULE 2.G: INVOICING

G1: During 2016, did your enterprise send electronic invoices or invoices in paper form to:

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Other enterprises								
Activity	Manufacturing	95.7	99.1	98.3	97.4	97.4	94.2	96.7
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	100.0	98.2	100.0	100.0	100.0	93.3	99.2
	Construction	100.0	98.4	100.0	99.2	100.0	100.0	99.7
	Wholesale and retail trade; repair of motor vehicles and motorcycles	95.9	92.7	100.0	96.3	89.1	98.7	95.6
	Transportation and storage	95.2	98.3	100.0	89.6	100.0	100.0	95.9
	Accommodation and food service activities	88.7	93.4	100.0	96.2	100.0	83.0	89.4
	Information and communication	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Real estate activities; Professional, scientific and technical activities	96.7	94.9	100.0	87.7	100.0	97.7	96.5
	Administrative and support service activities; Repair of computers	100.0	100.0	97.2	100.0	100.0	99.5	99.7
Total		96.3	97.4	99.0	96.5	96.1	97.1	96.6
Public authorities								
Activity	Manufacturing	76.2	78.6	71.1	95.6	59.8	58.0	76.5
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	86.6	98.2	96.7	100.0	81.7	93.3	92.7
	Construction	86.2	94.2	94.2	96.7	69.4	91.0	88.0
	Wholesale and retail trade; repair of motor vehicles and motorcycles	87.0	84.4	88.2	99.5	49.9	98.4	86.7
	Transportation and storage	81.7	74.0	94.8	83.4	60.9	99.2	81.0
	Accommodation and food service activities	48.5	69.3	100.0	90.9	74.1	27.4	51.6
	Information and communication	64.3	61.4	95.0	87.6	74.4	54.6	65.0
	Real estate activities; Professional, scientific and technical activities	65.0	68.5	100.0	82.2	84.9	57.0	65.9
	Administrative and support service activities; Repair of computers	98.0	98.6	81.9	91.5	96.6	97.7	96.4
Total		79.0	81.5	82.7	95.0	62.8	76.6	79.6

G1: During 2016, did your enterprise send electronic invoices or invoices in paper form to:

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Private consumers								
Activity	Manufacturing	58.3	61.3	52.8	82.2	35.1	39.7	58.7
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	83.6	98.2	93.3	96.8	81.7	93.3	91.0
	Construction	85.8	82.1	85.6	92.9	46.3	99.7	85.1
	Wholesale and retail trade; repair of motor vehicles and motorcycles	90.8	83.8	84.0	89.6	75.0	98.1	89.8
	Transportation and storage	72.5	82.1	69.8	69.0	67.2	87.4	73.9
	Accommodation and food service activities	59.3	72.2	50.0	89.3	80.6	42.1	60.8
	Information and communication	35.7	36.9	72.5	51.1	60.2	25.3	37.3
	Real estate activities; Professional, scientific and technical activities	30.5	21.7	89.4	39.2	82.4	13.8	30.0
	Administrative and support service activities; Repair of computers	90.0	96.7	63.9	75.2	80.7	95.4	88.5
Total		69.9	69.7	67.9	82.3	58.7	65.8	69.8

MODULE 2.H: Use of Radio Frequency Identification (RFID) technologies

H1: Does your enterprise make use of Radio Frequency Identification (RFID) instruments for the following purposes?

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Person identification or access control								
Activity	Manufacturing	9.1	29.7	65.0	14.5	19.0	20.0	17.1
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	6.1	22.1	46.1	15.8	10.3	40.1	16.8
	Construction	12.9	20.9	34.9	12.6	0.6	25.3	15.2
	Wholesale and retail trade activities; repair of motor vehicles and motorcycles	14.2	28.4	53.2	10.1	15.7	22.4	16.9
	Transportation and storage	6.3	43.8	63.5	9.4	18.5	17.5	14.6
	Accommodation and food service activities	18.1	37.3	25.0	5.8	32.7	23.0	20.5
	Information and communication	26.4	50.1	80.0	9.5	42.7	36.3	32.4
	Real estate activities; Professional, scientific and technical activities	14.5	56.8	59.1	15.4	30.0	20.0	21.0
	Administrative and support service activities; Repair of computers	31.3	34.3	42.7	24.2	31.4	36.0	33.0
Total		13.4	31.9	57.0	12.7	18.5	23.7	18.5
As part of the production and service delivery process								
Activity	Manufacturing	4.4	10.7	23.8	4.0	11.1	8.0	7.0
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	9.0	7.2	-	7.7	16.1	4.7
	Construction	2.6	2.9	12.5	-	11.6	0.8	3.0
	Wholesale and retail trade activities; repair of motor vehicles and motorcycles	3.4	5.8	13.7	0.4	10.1	2.9	3.9
	Transportation and storage	-	10.7	22.9	1.4	2.7	4.4	2.7
	Accommodation and food service activities	3.2	4.5	-	4.9	8.5	1.0	3.3
	Information and communication	-	1.1	5.0	1.0	1.0	-	0.4
	Real estate activities; Professional, scientific and technical activities	0.8	-	28.8	4.4	0.6	0.4	1.1
	Administrative and support service activities; Repair of computers	16.8	10.2	21.2	19.4	-	21.9	16.1
Total		3.4	7.6	18.7	2.6	8.5	4.3	4.8

H1: Does your enterprise make use of Radio Frequency Identification (RFID) instruments for the following purposes?

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
For product identification after the production process								
Activity	Manufacturing	1.3	2.3	7.1	1.0	4.2	1.0	1.9
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-
	Wholesale and retail trade activities; repair of motor vehicles and motorcycles	0.6	5.8	13.2	0.4	1.1	2.6	1.5
	Transportation and storage	-	-	-	-	-	-	-
	Accommodation and food service activities	0.8	-	-	-	3.9	-	0.7
	Information and communication	-	2.3	5.0	-	-	0.9	0.6
	Real estate activities; Professional, scientific and technical activities	0.8	-	19.7	4.4	0.6	0.2	0.9
	Administrative and support service activities; Repair of computers	5.6	1.4	-	7.0	-	5.4	4.3
Total		0.9	2.2	6.0	0.8	1.9	1.4	1.3

MODULE 2.I: e-Commerce[1)]

I1: Did your enterprise receive orders for goods or services placed via a website or mobile application (excluding manually typed e-mails) during 2016?

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Manufacturing	23.5	30.1	38.4	19.8	38.1	23.6	25.9
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	4.5	9.5	21.9	3.5	15.3	7.9	8.2
	Construction	15.5	10.0	30.4	8.6	11.6	22.2	15.0
	Wholesale and retail trade activities; repair of motor vehicles and motorcycles	20.5	36.3	51.9	18.5	27.9	23.9	23.2
	Transportation and storage	18.5	21.4	49.0	9.8	35.0	18.7	20.3
	Accommodation and food service activities	37.0	48.7	75.0	36.1	36.9	40.6	38.8
	Information and communication	38.4	36.6	52.5	22.3	16.8	51.0	38.6
	Real estate activities; Professional, scientific and technical activities	9.0	23.7	40.9	10.7	4.5	13.6	11.5
	Administrative support service activities; Repair of computers	48.2	31.6	41.7	28.0	31.9	54.4	44.6
Total		22.0	27.7	41.0	17.2	28.7	26.6	23.8

I2: Indicate the percentage of the total turnover resulting from orders received via a website or mobile application, during 2016

In percentage

	Enterprises						
	Size class			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
1-24%	80.5	77.8	76.3	85.0	74.4	80.2	79.6
25-49%	6.2	10.8	10.0	6.4	10.6	5.8	7.4
50-74%	8.7	6.5	9.4	2.0	12.5	8.9	8.3
75-100%	4.7	4.9	4.3	6.7	2.5	5.1	4.7

[1)] The results in tables from I2 to I8 refer ibkt ti enterprises that answered YES˜to question I1.

I3: Indicate the percentage of the turnover of orders received via a website or mobile application during 2016[1]

In percentage

| | Enterprises | | | | | | |
| | Size class | | | Region | | | |
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
Sales to private consumers (B2C)							
1- 24%	29.2	34.8	30.6	31.9	34.3	27.1	30.5
25- 49%	3.4	5.5	1.1	8.8	4.0	0.6	3.7
50-74%	21.5	29.5	36.5	34.9	13.9	25.3	24.2
75-100%	45.8	30.2	31.8	24.4	47.8	47.1	41.5
Sales to enterprises (B2B, B2G)							
1- 24%	45.3	30.2	31.8	24.4	46.6	47.1	41.1
25- 49%	10.0	10.2	15.6	6.5	7.5	14.8	10.4
50-74%	15.4	24.8	22.1	37.3	11.7	11.0	17.9
75-100%	29.2	34.8	30.6	31.9	34.3	27.1	30.5

[1] The results refer only to enterprises that answered YES to question I1.

I4: Did your enterprise receive orders or services via a website or mobile application during 2016?

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Via your enterprise's website or mobile application								
Activity	Manufacturing	63.9	58.8	54.2	55.6	73.5	49.5	61.7
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	57.4	100.0	-	61.9	100.0	52.6
	Construction	59.8	100.0	67.7	-	25.3	97.7	65.3
	Wholesale and retail trade activities; repair of motor vehicles and motorcycles	58.4	43.6	64.7	53.5	95.8	31.0	55.9
	Transportation and storage	42.2	37.2	68.1	24.3	64.9	16.4	44.1
	Accommodation and food service activities	69.8	61.8	100.0	88.0	100.0	52.8	69.1
	Information and communication	48.9	73.5	90.5	74.1	85.8	48.9	54.9
	Real estate activities; Professional, scientific and technical activities	100.0	89.8	100.0	100.0	57.1	100.0	97.0
	Administrative and support service activities; Repair of computers	94.9	62.5	100.0	93.5	96.9	89.7	91.4
Total		63.4	58.3	68.9	55.2	78.8	55.8	62.7
Via a website or mobile application used by several enterprises on the market								
Activity	Manufacturing	15.7	5.0	4.3	12.2	14.2	6.4	11.8
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	-	-	-	-	-	-
	Construction	-	28.8	8.9	-	20.2	1.1	4.2
	Wholesale and retail trade activities; repair of motor vehicles and motorcycles	6.2	26.8	12.9	2.7	19.4	9.0	10.5
	Transportation and storage	17.9	-	12.8	75.7	-	-	14.4
	Accommodation and food service activities	5.2	10.3	-	12.0	18.0	-	5.9
	Information and communication	0.9	-	14.3	6.7	-	0.9	1.5
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	-	32.3	-	-	3.1	4.8	4.0
Total		8.1	11.6	7.0	11.0	13.2	4.4	8.8

I5: Indicate the percentage of the turnover of orders received via a website or mobile application during 2016, by type of transaction[1]

In percentages

	Enterprises						
	Size class			Region			
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
Via your enterprise's website or mobile application							
1- 24%	0.0	38.0	0.0	8.3	6.7	17.4	7.9
25- 49%	0.0	0.0	29.3	16.6	0.0	0.0	2.0
50-74%	48.2	24.8	34.1	62.7	42.6	14.3	42.4
75-100%	51.8	37.2	36.6	12.4	50.7	68.3	47.8
Via a website or mobile application used by several enterprises on the market							
1- 24%	51.8	37.2	36.6	12.4	50.7	68.3	47.8
25- 49%	9.0	0.0	19.5	0.0	8.3	14.3	7.9
50-74%	39.2	24.8	43.9	79.3	34.4	0.0	36.5
75-100%	0.0	38.0	0.0	8.3	6.7	17.4	7.9

[1] The results refer only to enterprises that answered YES to question I4.

**I6: Did your enterprise receive orders via a website
or mobile application placed by suppliers located
in the following countries, during 2016?**

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Small (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Republic of Serbia								
Activity	Manufacturing	97.1	94.4	100.0	98.7	93.7	98.4	96.6
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Construction	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Wholesale and retail trade; repair of motor vehicles and motorcycles	99.3	92.0	100.0	97.3	98.2	98.1	97.9
	Transportation and storage	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Accommodation and food service activities	97.7	100.0	100.0	100.0	89.3	100.0	98.1
	Information and communication	86.0	100.0	90.5	93.3	50.9	91.9	88.4
	Real estate activities; Professional, scientific and technical activities	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Administrative and support service activities; Repair of computers	99.3	100.0	93.3	94.6	100.0	99.1	98.8
Total		97.5	95.5	98.8	98.3	95.1	97.9	97.1
EU countries								
Activity	Manufacturing	37.7	38.2	45.6	40.3	40.7	31.1	38.5
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	100.0	42.6	15.2	100.0	38.1	30.0	50.9
	Construction	53.6	100.0	10.1	94.9	20.2	53.7	56.0
	Wholesale and retail trade; repair of motor vehicles and motorcycles	3.3	20.9	35.7	8.9	8.0	8.5	8.5
	Transportation and storage	36.7	91.9	19.1	82.6	12.9	78.7	44.0
	Accommodation and food service activities	34.1	31.1	-	30.1	48.4	29.6	33.0
	Information and communication	39.1	4.7	61.9	14.0	19.8	39.4	34.9
	Real estate activities; Professional, scientific and technical activities	-	13.6	-	6.7	42.9	-	4.0
	Administrative and support service activities; Repair of computers	7.7	33.1	6.7	6.5	-	13.9	10.7
Total		25.1	34.7	32.9	33.6	26.5	25.1	27.7

**I6: Did your enterprise receive orders via a website
or mobile application placed by suppliers located
in the following countries, during 2016?**

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Small (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
The rest of the world								
Activity	Manufacturing	43.5	42.0	30.8	46.8	43.6	31.3	42.1
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	100.0	-	15.2	-	38.1	30.0	28.8
	Construction	29.9	100.0	8.9	-	20.2	53.6	37.0
	Wholesale and retail trade; repair of motor vehicles and motorcycles	11.7	17.5	19.6	13.4	24.9	5.6	13.3
	Transportation and storage	36.7	70.8	19.1	82.6	6.5	78.7	40.5
	Accommodation and food service activities	25.3	8.7	-	22.7	10.7	25.4	22.2
	Information and communication	46.9	32.6	57.1	39.9	71.7	43.0	45.2
	Real estate activities; Professional, scientific and technical activities	-	17.0	25.9	13.4	42.9	1.5	6.1
	Administrative and support service activities; Repair of computers	8.4	24.5	-	18.4	-	10.7	9.6
Total		27.8	33.8	23.3	33.6	31.4	24.2	28.8

I7: Indicate the percentage of the turnover of orders, received via a website or mobile application placed by suppliers located in the following countries, during 2016[1]

In percentages

| | Enterprises | | | | | | |
| | Size class | | | Region | | | |
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
Republic of Serbia							
1- 24%	10.8	4.6	12.9	7.5	9.0	11.6	9.5
25- 49%	8.3	7.6	3.5	8.4	10.7	4.5	7.8
50-74%	43.0	38.5	37.2	47.0	35.0	42.8	41.5
75-100%	37.9	49.2	46.4	37.1	45.3	41.1	41.3
EU countries							
1- 24%	66.5	78.0	65.2	68.7	71.5	67.5	69.2
25- 49%	19.8	15.0	18.8	13.6	13.2	27.7	18.6
50-74%	12.2	7.0	11.3	17.4	13.6	2.8	10.8
75-100%	1.5	0.0	4.7	0.4	1.7	1.9	1.4
The rest of the world							
1- 24%	60.9	79.9	73.0	68.1	73.9	58.2	66.4
25- 49%	24.8	14.5	18.9	21.5	11.8	31.2	21.8
50-74%	13.5	3.9	8.1	10.3	14.3	7.9	10.8
75-100%	0.8	1.7	0.0	0.0	0.0	2.6	1.0

[1] The results refer only to enterprises that answered YES to question I6.

I8: During 2016, did your enterprise experience any of the following difficulties when selling to other EU countries via a website or mobile application?[1]

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
High costs of delivering or returning goods when selling								
Activity	Manufacturing	8.4	18.2	4.7	1.2	5.5	44.5	10.8
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	-	100.0	-	-	100.0	6.8
	Construction	-	-	100.0	-	-	2.3	1.4
	Wholesale and retail trade; repair of motor vehicles and motorcycles	57.0	-	22.5	64.1	-	11.2	21.9
	Transportation and storage	-	-	-	-	-	-	-
	Accommodation and food service activities	13.3	-	-	-	44.1	-	11.3
	Information and communication	31.6	-	46.2	-	-	35.6	32.3
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	33.3	-	-	-	-	19.8	18.6
Total		12.5	8.9	16.6	5.2	6.9	20.6	11.9
Difficulties related to resolving complaints and disputes when selling								
Activity	Manufacturing	7.3	12.8	-	8.1	5.5	14.5	8.1
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	100.0	-	-	-	100.0	-	49.7
	Construction	-	-	-	-	-	-	-
	Wholesale and retail trade; repair of motor vehicles and motorcycles	-	28.0	-	-	47.8	-	13.4
	Transportation and storage	-	-	-	-	-	-	-
	Accommodation and food service activities	-	12.4	-	8.8	-	-	1.8
	Information and communication	10.5	-	-	-	-	10.3	9.3
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	-	-	-	-	-	-	-
Total		6.4	10.9	-	5.2	11.3	5.4	7.1

[1] The results refer only to enterprises that answered YES to question I6.

I8: During 2016, did your enterprise experience any of the following difficulties when selling to other EU countries via a website or mobile application?[1]

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Difficulties related to adopting product labelling for sales to other EU countries								
Activity	Manufacturing	7.3	12.8	3.9	9.1	5.5	14.5	8.5
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-
	Wholesale and retail trade; repair of motor vehicles and motorcycles	-	37.8	-	-	47.8	10.2	18.1
	Transportation and storage	-	-	-	-	-	-	-
	Accommodation and food service activities	-	-	-	-	-	-	-
	Information and communication	10.5	-	-	-	-	10.3	9.3
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	-	-	-	-	-	-	-
Total		4.8	11.9	2.2	5.3	7.7	6.4	6.4
Lack of knowledge of foreign languages for communicating with customers								
Activity	Manufacturing	2.3	4.0	-	-	-	14.5	2.6
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-
	Wholesale and retail trade; repair of motor vehicles and motorcycles	-	-	-	-	-	-	-
	Transportation and storage	-	-	-	-	-	-	-
	Accommodation and food service activities	-	-	-	-	-	-	-
	Information and communication	-	-	-	-	-	-	-
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	-	-	-	-	-	-	-
Total		1.1	1.9	-	-	-	3.0	1.2

[1] The results refer only to enterprises that answered YES to question I6.

I8: During 2016, did your enterprise experience any of the following difficulties when selling to other EU countries via a website or mobile application?[1]

In percentages

Enterprises		Size class			Region			Total
		Small (10–49)	Medium (50–249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Restrictions from your business partners to sell to certain EU countries								
Activity	Manufacturing	3.1	5.8	3.9	1.0	1.1	17.3	3.9
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	100.0	-	100.0	-	-	43.4
	Construction	-	-	-	-	-	-	-
	Wholesale and retail trade; repair of motor vehicles and motorcycles	-	19.6	22.5	-	-	31.6	14.5
	Transportation and storage	48.8	-	-	83.2	-	-	29.8
	Accommodation and food service activities	-	-	-	-	-	-	-
	Information and communication	21.1	-	15.4	-	28.6	20.7	20.1
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	-	-	-	-	-	-	-
Total		8.6	9.1	9.1	12.6	1.2	11.4	8.8

[1] The results refer only to enterprises that answered YES to question I6.

I9: During 2016, did your enterprise receive orders for goods or services via EDI-type messages?[1]

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Manufacturing	3.4	2.7	10.1	1.6	9.3	1.0	3.6
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	-	3.3	-	0.8	-	0.3
	Construction	-	-	-	-	-	-	-
	Wholesale and retail trade; repair of motor vehicles and motorcycles	1.3	-	5.3	-	4.5	0.2	1.2
	Transportation and storage	-	6.2	-	0.7	-	2.4	1.0
	Accommodation and food service activities	0.8	-	-	2.7	-	-	0.7
	Information and communication	-	-	-	-	-	-	-
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	-	-	7.7	-	-	1.3	0.8
Total		1.4	1.4	6.2	0.8	4.5	0.5	1.6

[1] The results refer only to enterprises that answered YES to question A1.

I10: Please, indicate an estimate of the percentage of the total turnover resulting from orders received that were placed via EDI-type messages in 2016[1]

In percentages

	Enterprises						
	Size class			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Srbija	Vojvodina	Belgrade	
1-24%	78.1	55.4	29.3	40.5	76.1	48.6	66.7
25-49%	0.0	0.0	30.1	3.4	1.8	24.9	4.7
50-74%	0.0	0.0	7.6	3.4	0.8	0.0	1.2
75-100%	21.9	44.6	33.0	52.8	21.3	26.6	27.4

[1] The results refer only to enterprises that answered YES to question I9.

**I12: Did your enterprise order goods/services via a website,
mobile application or EDI-type messages during 2016?**[1]

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Manufacturing	42.3	50.2	68.4	48.8	45.5	39.7	45.7
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	18.0	30.5	26.1	20.0	29.0	29.4	24.3
	Construction	27.6	50.6	45.3	28.1	40.4	31.9	32.5
	Wholesale and retail trade; repair of motor vehicles and motorcycles	39.0	45.3	64.4	43.1	43.0	36.9	40.4
	Transportation and storage	38.7	34.8	49.0	36.6	37.3	42.5	38.6
	Accommodation and food service activities	35.8	35.6	100.0	48.8	36.6	30.9	36.3
	Information and communication	64.6	57.5	57.5	52.9	58.8	67.8	63.2
	Real estate activities; Professional, scientific and technical activities	28.2	35.9	80.3	44.6	25.5	27.6	29.9
	Administrative and support service activities; Repair of computers	57.0	67.8	50.2	56.9	28.3	71.1	58.2
Total		39.3	46.5	59.6	43.2	41.4	39.9	41.4

[1] The results refer only to enterprises that answered YES to question A1.

I13: Did your enterprise order goods/services via a website or mobile application during 2016?[1]

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Manufacturing	86.8	92.3	89.5	93.2	84.0	83.0	88.5
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	100.0	90.6	100.0	87.6	100.0	100.0	94.7
	Construction	100.0	94.3	100.0	100.0	94.2	100.0	98.4
	Wholesale and retail trade; repair of motor vehicles and motorcycles	85.2	93.3	80.6	98.4	61.2	92.4	86.1
	Transportation and storage	91.0	100.0	74.5	98.1	100.0	75.4	91.4
	Accommodation and food service activities	68.7	100.0	100.0	85.3	55.4	72.0	73.3
	Information and communication	97.6	89.3	87.0	98.1	100.0	94.2	95.9
	Real estate activities; Professional, scientific and technical activities	94.4	97.8	100.0	79.6	100.0	100.0	95.2
	Administrative and support service activities; Repair of computers	94.2	93.5	95.3	100.0	87.9	93.9	94.2
Total		88.6	93.3	88.8	94.6	80.9	90.5	89.6

[1] The results refer only to enterprises that answered YES to question I12.

I14: Did your enterprise order goods/services via EDI-type messages during 2016?[1]

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Manufacturing	19.8	9.0	21.1	13.0	28.4	11.5	17.0
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	24.8	-	-	-	20.1	-	8.6
	Construction	-	5.7	15.8	1.6	5.8	0.9	2.5
	Wholesale and retail trade; repair of motor vehicles and motorcycles	22.2	3.1	25.2	20.6	36.9	7.6	19.7
	Transportation and storage	9.0	38.8	19.1	1.9	12.1	29.1	13.7
	Accommodation and food service activities	35.2	9.3	-	24.7	44.6	30.3	31.1
	Information and communication	3.4	8.7	-	5.0	-	5.1	4.1
	Real estate activities; Professional, scientific and technical activities	29.1	9.6	11.3	8.9	7.5	35.9	25.2
	Administration and support service activities; Repair of computers	2.2	13.7	20.2	-	15.6	5.8	6.1
Total		17.5	8.7	19.0	12.8	25.3	12.2	15.7

[1] The results refer only to enterprises that answered YES to question I12.

I15: Did the value of all the orders placed by your enterprise over the Internet exceed 1% of the total number of enterprise's purchases during 2016?[1]

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Manufacturing	55.0	31.2	47.0	37.1	59.8	59.2	48.1
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	41.2	49.0	58.5	30.4	73.7	18.9	47.2
	Construction	46.0	37.1	48.4	28.1	50.0	50.4	43.6
	Wholesale and retail trade; repair of motor vehicles and motorcycles	62.9	53.2	65.8	80.9	56.3	49.4	61.7
	Transportation and storage	65.3	74.4	59.6	44.1	98.8	61.7	66.3
	Accommodation and food service activities	82.4	48.3	75.0	66.3	67.8	90.0	78.1
	Information and communication	53.6	57.2	39.1	65.4	51.0	51.4	53.6
	Real estate activities; Professional, scientific and technical activities	63.5	60.0	62.3	33.3	7.5	87.9	62.9
	Administrative and support service activities; Repair of computers	51.8	60.7	63.2	48.3	70.5	53.3	54.6
Total		58.8	43.5	53.6	49.7	59.6	58.0	55.4

[1] The results refer only to enterprises that answered YES to question I12.

I16: Did your enterprise receive orders via a website, mobile application or EDI-type messages that were placed by customers located in the following countries, during 2016?[1]

In percentages

Enterprises		Size class			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Republic of Serbia								
Activity	Manufacturing	67.0	60.3	56.8	66.4	55.1	72.0	64.4
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	41.2	64.3	12.8	97.3	22.9	-	51.6
	Construction	38.7	32.1	27.8	96.9	21.4	2.3	36.3
	Wholesale and retail trade; repair of motor vehicles and motorcycles	53.7	63.2	46.4	65.6	59.1	42.9	54.7
	Transportation and storage	17.6	48.5	25.5	23.0	7.2	35.7	22.3
	Accommodation and food service activities	40.1	32.5	50.0	42.2	43.0	36.1	39.4
	Information and communication	79.5	57.2	65.2	37.5	91.9	80.4	75.6
	Real estate activities; Professional, scientific and technical activities	28.0	68.9	100.0	30.7	92.5	26.3	37.4
	Administrative and support service activities; Repair of computers	87.9	62.5	51.4	58.7	87.9	82.7	79.5
Total		55.8	57.4	51.1	62.6	52.6	51.6	55.9
Other EU countries								
Activity	Manufacturing	31.3	31.8	33.8	28.7	37.9	30.7	31.7
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	13.2	29.8	17.4	-	18.9	10.2
	Construction	10.8	5.7	23.9	26.7	5.8	0.8	10.0
	Wholesale and retail trade; repair of motor vehicles and motorcycles	14.7	10.3	4.3	29.3	12.4	1.7	13.7
	Transportation and storage	9.0	30.7	40.4	3.7	6.1	32.7	13.8
	Accommodation and food service activities	31.1	23.8	50.0	11.9	23.1	46.4	30.7
	Information and communication	37.0	27.5	39.1	22.2	32.9	39.8	35.7
	Real estate activities; Professional, scientific and technical activities	21.3	36.8	26.4	10.9	28.3	28.1	24.1
	Administrative and support service activities; Repair of computers	9.0	24.6	20.9	3.3	-	17.5	13.2
Total		21.7	23.7	27.3	24.8	22.3	20.1	22.4

[1] The results refer only to enterprises that answered YES to question I15.

I16: Did your enterprise receive orders via a website, mobile application or EDI-type messages that were placed by customers located in the following countries, during 2016?[1]

In percentages

Enterprises		Size class			Region			Total
		Small (10–49)	Medium (50–249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
The rest of the world								
Activity	Manufacturing	17.9	27.1	20.4	19.5	23.8	18.5	20.5
	Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities	-	13.2	14.9	17.4	-	9.5	8.8
	Construction	5.4	-	23.9	14.9	-	0.8	4.8
	Wholesale and retail trade; repair of motor vehicles and motorcycles	9.1	5.7	-	15.4	10.1	1.1	8.2
	Transportation and storage	-	17.7	6.4	1.9	-	6.7	2.8
	Accommodation and food service activities	20.0	21.2	50.0	8.9	10.7	33.0	20.9
	Information and communication	30.5	24.5	39.1	15.8	16.5	37.2	29.9
	Real estate activities; Professional, scientific and technical activities	34.5	36.8	37.7	10.9	28.3	46.0	35.0
	Administrative and support service activities; Repair of computers	8.1	11.6	15.4	3.3	-	12.3	9.5
Total		14.6	18.7	17.4	15.8	14.2	16.4	15.6

[1] The results refer only to enterprises that answered YES to question I15.

2.5. QUESTIONNAIRE

USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN ENTERPRISES

MODULE 2.A: USE OF COMPUTERS		
A1: Does your enterprise use computers for business purposes? Computers include the following devices: personal computers (PC), laptop, tablet and other portable devices such as smartphones.	**YES** ☐	**NO** ☐ **The end**
A2: Please, indicate the share of employees who use computers for business purposes:		☐☐☐ %
A3: Did your enterprise use *open-source* operating system *LINUX* during 2016?	**YES** ☐	**NO** ☐
MODULE 2.B: ICT SPECIALISTS AND SKILLS		
B1: Does your enterprise employ ICT specialists? ICT specialists are employees for whom ICT is the main job; such as maintenance and development of system, as well as work with applications	**YES** ☐	**NO** ☐
B2: Did your enterprise provide any type of training to develop ICT related skills of the persons employed during 2016?	**YES**	**NO**
a) Training for ICT specialists (*Tick „No" if your enterprise did not employ ICT specialists*)	☐	☐
b) Training for other persons employed	☐	☐
B3: Did your enterprise recruit or try to recruit ICT specialists during 2016?	**YES** ☐	**NO** ☐ **Go to B5**
B4: During 2016, did your enterprise have vacancies for ICT specialists that were difficult to fill?	**YES** ☐	**NO** ☐

B5: Please, indicate who mainly performed the following ICT functions in your enterprise during 2016:	Employees in the enterprise	External suppliers	Not applicable
a) Maintenance of ICT infrastructure (servers, computers, printers, networks)	☐	☐	☐
b) Support for office software (*Word, Excel...*)	☐	☐	☐
c) Development of information systems (ERP, CRM) **ERP** (*Enterprise Resource Planning*) – software system used to manage all aspects of the functions of an enterprise. Implemented ERP system is able to integrate the functions of different sections of an enterprise (accounting, sales, production...) in one whole. **CRM** (*Customer Relationship Management*) – software application used to manage information about customers. CRM helps to use professionally technologies and human resources to have an insight in customers' behaviour and significance.	☐	☐	☐
d) Support for business management software/systems (ERP, CRM, HR databases)	☐	☐	☐
e) Development of web solutions (websites, e-commerce solutions)	☐	☐	☐
f) Support for web solutions (websites, e-commerce solutions)	☐	☐	☐
g) Security and data protection (security testing, security software)	☐	☐	☐

MODULE 2.C: ACCESS TO AND USE OF THE INTERNET

	YES	NO
C1: Does your enterprise have access to the Internet?	☐	☐ **Go to E1**

C2: Please, indicate an estimate of the percentage of the total number of employees who use the Internet for business purposes :	☐☐☐ %

Use of a fixed broadband connection to the Internet for business purposes

	YES	NO
C3: Does you enterprise use DSL or any other type of fixed broadband connection to the Internet (ADSL, cable Internet, public WiFi)?	☐	☐ **Go to C6**

C4: What is the maximum contracted speed of the Internet connection in your enterprise? (tick only one)	
a) Less than 2 Mbit/s	☐
b) At least 2, but less than 10 Mbit/s	☐
c) At least 10, but less than 30 Mbit/s	☐
d) At least 30, but less than 100 Mbit/s	☐
e) At least 100 Mbit/s	☐

	YES	NO
C5: Is the speed of your fixed connection(s) to the Internet sufficient for the actual needs of the enterprise?	☐	☐

Use of a mobile connection to the Internet for business purposes		
The use of a mobile connection to the Internet for business purposes means the use of portable devices paid and provided by the enterprise that are connected to the Internet through a mobile telephone network.		

	YES	NO
C6: Does your enterprise use a mobile broadband connection to the Internet (3G or 4G) using mobile portable devices (smartphone, laptop, tablet, etc.)?	☐	☐
C7: Please, indicate an estimate of the percentage of the total number of employees who use a portable device (provided by the enterprise) for business purposes that allows Internet connection via mobile telephone networks (portable computer, tablet, smartphone):		⬚⬚⬚ %

Use of a website		

	YES	No
C8: Does your enterprise have a website?	☐	☐ **Go to C10**

C9: Does the website of your enterprise provide any of the following services? *(Your enterprise as Internet service provider)*	YES	NO
a) Description of goods or services, price lists	☐	☐
b) Online ordering or reservation or booking of goods/services	☐	☐
c) Possibility for visitors to customize or design online goods	☐	☐
d) Tracking or status of orders placed	☐	☐
e) Personalised content in the website for regular visitors	☐	☐
f) Links to the enterprise's social media profiles *(Facebook, Twitter)*	☐	☐

Use of social media		
Use of social media implies the use of Internet applications or communication platforms in or outside the enterprise to link, create and share content with customers or suppliers. Enterprises that use social media are those that have a user profile or account depending on the requirements and types of social media.		

C10: Does your enterprise use any of the following social media? *If the answer is "Yes" to at least one statement from a) to d)-> go to question C11; otherwise, go to D1*	YES	NO
a) Social networks *(Facebook, LinkedIn, Xing, Yammer)*	☐	☐
b) Enterprise's blog *(Twitter)*	☐	☐
c) Multimedia content sharing websites *(Youtube, Flickr, Picasa)*	☐	☐
d) *Wikipedia*	☐	☐

C11: Did your enterprise use social media during January 2017 to:	YES	NO
a) Advertise enterprise's image using pictures or products	☐	☐
b) Obtain or respond to customer opinions, reviews, questions	☐	☐
c) Involve customers in development or innovation of goods or services	☐	☐
d) Collaborate with business partners or other organisations	☐	☐
e) Recruit employees	☐	☐
f) Exchange views, opinions or knowledge within the enterprise	☐	☐

MODULE 2.D: USE OF CLOUD COMPUTING SERVICES		
Cloud services refer to ICT services that are used over the Internet to access software, computer storage, etc. The services have the following characteristics: • *they are on servers of service providers;* • *they can be used on demand by the user;* • *they are paid based on way of use, capacity used.*		

	YES	NO
D1: Does your enterprise pay cloud services over the Internet?	☐	☐ **Go to E1**

D2: Does your enterprise pay any of the following cloud computing services used over the Internet (excluding free of charge services)?	YES	NO
a) e-mail	☐	☐
b) Office software *(Word, Excel)*	☐	☐
c) Hosting the enterprise's database(s)	☐	☐
d) Storage of files	☐	☐
e) Finance or accounting software applications	☐	☐
f) CRM software	☐	☐
g) Computing power to run the enterprise's own software	☐	☐

D3: Does your enterprise pay any cloud computing services delivered by providers from:	YES	NO
a) Shared servers	☐	☐
b) Servers of service providers exclusively reserved for your enterprise	☐	☐

MODULE 2.E: AUTOMATIC SHARE OF INFORMATION WITHIN THE ENTERPRISE		
Automatic share of information between different functions of the enterprise means any of the following: • *using one single software application to support the different functions of the enterprise;* • *data linking between the software applications that support the different functions of the enterprise;* • *sing a common database of data warehouse accessed by the software applications that support the different functions of the enterprise;* • *automatic exchange of data between different software systems within the enterprise.*		

	YES	NO
E1: Does your enterprise use an ERP software package for exchanging information about sales and/or purchases with other functions (finance, planning, marketing, etc.)?	☐	☐

E2: Does your enterprise use any software application for managing information about customers (CRM) that allows to:	YES	NO
a) Capture, store and make available to other business functions information about customers	☐	☐
b) Analyse information about customers for marketing purposes (setting prices, making sales promotion, choosing distribution channels, etc.)	☐	☐

MODULE 2.F: SHARING SUPPLY CHAIN MANAGEMENT INFORMATION ELECTRONICALLY		
Sharing information electronically on Supply Chain Management means: • *sharing all types of information with suppliers and/or customers to coordinate the availability and delivery of goods and services to end customers; including information about demand, stocks, production, distribution or development of good and services.* • *electronic information is exchanged electronically in supply chain management via computer network, not only the Internet but via other links between computers of other enterprises.* • *This information may be exchanged via websites or automatic share of information, but excludes usual, manually-typed messages.*		

	YES	NO
F1: Does your enterprise exchange regularly information electronically in supply chain management with its suppliers or customers?	☐	☐ **Go to G1**

F2: How does your enterprise exchange electronically information in supply chain management:	YES	NO
a) Via its website or website of business partners	☐	☐
b) Via electronic transmission suitable for automated processing (EDI messages, XML, EDIFACT)	☐	☐

MODULE 2.G: INVOICING

There are two forms of electronic invoices:
- *e-invoice in a standard structure (suitable for automated processing) – those invoices may be exchanged directly between suppliers and customers, via service operator or via an electronic banking system;*
- *invoice sent electronically, not suitable for automated processing (invoice sent by e-mail).*

	YES	NO
G1: During 2016, did your enterprise send electronic invoices or invoices in paper form to: *If the answer is "Yes " in a) or b) -> go to question G2; otherwise, go to G3*		
a) Other enterprises	☐	☐
b) Public authorities	☐	☐
c) Private consumers	☐	☐

G2: Please, indicate the percentage of invoices sent to enterprises and public authorities during 2016.	%	
a) Electronic invoices in standard structure suitable for automated processing *(e-Invoices)*		%
b) Invoices sent in electronic form, not suitable for automated processing (invoices sent by e-mail, e-mail attachment in PDF, TIF, JPEG)		%
c) Invoices in paper form		%
TOTAL		100 %

G3: Please, indicate the percentage of invoices received during 2016:	%	
a) Electronic invoices in standard structure suitable for automated processing *(e-Invoices)*		%
b) Invoices in paper form or invoices received electronically, not suitable for automated processing		%
TOTAL		100 %

MODULE 2.H: USE OF RADIO FREQUENCY IDENTIFICATION (RFID) TECHNOLOGIES

Radio Frequency Identification (RFID) technologies mean:
- *method of automatic identification to store and remotely retrieve data using RFID tags or transponders;*
- *RFID tag is a device that can be applied to or incorporated into a product or an object and transmits data via radio waves;*
- *RFID system consists of an antenna and receiver that reads the radio frequency and transmits information to the signal processing device.*

	YES	NO
H1: Does your enterprise make use of Radio Frequency Identification instruments (FRID) for the following purposes:		
a) Person identification or access control	☐	☐
b) As part of the production and service delivery process (monitoring and control of industrial production, supply chain and inventory tracking; service, maintenance or asset management, etc.)	☐	☐
c) For product identification after the production process	☐	☐

MODULE 2.I: e-COMMERCE

e-Commerce refers to business communication and transfer of goods and services (purchase and sale) over computer networks, as well as to capital transfer, using digital communication (ICT).
e-commerce may be used via website or automatic share of information between enterprises, but excludes manually typed individual messages.

Web sales

	YES	NO
I1: Did your enterprise receive orders for goods or services placed via a website or mobile application (excluding manually typed e-mails) during 2016?	☐	**Go to I9**
I2: Please, indicate the percentage of the total turnover resulting from orders received via a website or mobile application, during 2016:		%

I3: Indicate the percentage of the turnover of orders received via a website or mobile application, during 2016, by type of transaction	%	
a) Sales to private consumers (B2C)		%
b) Sales to enterprises (B2B, B2G)		%
TOTAL	100 %	

I4: Did your enterprise receive orders or services via a website or application during 2016? *If the answer is "Yes" in a) and b) -> go to question I5; otherwise, go to I6*	YES	NO
a) Via your enterprise's website or mobile application *(Including those of parent or affiliate enterprises)*	☐	☐
b) Via a website or mobile application used by several enterprises on the market *(Apr, Nbs, Amss, Limundo, Artberza, Sve za kuću,Tehnomanija, Infostud, Popusti.rs)*	☐	☐

I5: Indicate the percentage of the turnover of orders received via a website or mobile application during 2016, by type of transaction:	%	
a) Via your enterprise's website or mobile application *(Including those of parent and affiliate enterprises, extranet)*		%
b) Via a website or mobile application used by several enterprises on the market *(Apr, Nbs, Amss, Limundo, Artberza, Sve za kuću,Tehnomanija, Infostud, Popusti.rs)*		%
TOTAL	100 %	

I6: Did your enterprise receive orders via a website or mobile application placed by suppliers located in the following countries, during 2016? *If the answer is "Yes" to at least two statements from a) to c)-> go to question I7; otherwise, go to I8*	YES	NO
a) Republic of Serbia	☐	☐
b) Other EU countries	☐	☐
c) The rest of the world	☐	☐

I7: Indicate the percentage of the turnover of orders, received via a website or mobile application placed by suppliers located in the following countries, during 2016: *If the answer is "Yes" in b) to question I6 -> go to I8; otherwise, go to I9*	%	
a) Republic of Serbia		%
b) Other EU countries		%
c) The rest of the world		%
TOTAL	100 %	

I8: During 2016, did your enterprise experience any of the following difficulties when selling to other EU countries via a website or mobile application?	YES	NO
a) High costs of delivering or returning goods when selling	☐	☐
b) Difficulties related to resolving complaints and disputes when selling	☐	☐
c) Difficulties related to adapting product labelling for sales to other EU countries	☐	☐
d) Lack of knowledge of foreign languages for communicating with customers	☐	☐
e) Restrictions from your business partners to sell to certain EU countries	☐	☐

EDI-type sales		
ED-type sale is a form of sale via EDI-type messages. EDI is used here as a generic term for sending or receiving information in an agreed format allowing automatic processing (e.g. EDIFACT, XML), excluding manually typed messages.		

	YES ☐	**NO** ☐ **Go to I12**
I9: During 2016, did your enterprise receive orders for goods or services via EDI-type messages?		

	National currency
I10: Please, indicate an estimate of the percentage of the total turnover resulting from orders received that were placed via EDI-type messages in 2016.	_____ %

I11: During 2016, did your enterprise receive orders via EDI-type messages placed by customers located in the following countries:	**YES**	**NO**
a) Republic of Serbia	☐	☐
b) Other EU countries	☐	☐
c) The rest of the world	☐	☐

Orders placed over the Internet
Orders may be placed over the Internet via: • online shops (web shopping carts) or via web forms on a website or mobile application; • EDI-type messages, suitable for EDI automated processing (EDIFACT), XML, excluding manually typed messages.

	YES ☐	**NO** ☐ **The end**
I12: Did your enterprise order goods/services via a website, mobile application or EDI-type messages during 2016?		

	YES ☐	**NO** ☐
I13: Did your enterprise order goods/services via a website or mobile application during 2016?		
I14: Did your enterprise order goods/services via EDI-type messages during 2016?	☐	☐

	YES ☐	**NO** ☐ **The end**
I15: Did the value of all the orders placed by your enterprise over the Internet exceed 1% of the total number of enterprise's purchases during 2016?		

I16: Did your enterprise receive orders via a website, mobile application or EDI-type messages that were placed by customers located in the following countries, during 2016?	**YES**	**NO**
a) Republic of Serbia	☐	☐
b) Other EU countries	☐	☐
c) The rest of the world	☐	☐

Respondent's name and surname: _____

Function (position in the enterprise): _____

e-mail: _____

ICT DICTIONARY

ADSL (Asymmetric Digital Subscriber Line):

A broadband digital transmission technology that uses the existing telephone line and provides for possible simultaneous data sending and voice co   mmunication. The larger pa rt of range serves for data sending to user and the speed extends up to 6 Mbps.

Bit (Binary Digit):

The smallest inf ormation unit tha t a computer ha ndles. A bit is express ed as 1 or 0 in binar y presentation, or as true, i.e. false in logic presentation. A group of 8 bits makes 1 bite.

Broadband:

A communicatio n sy stem the ag ent (carrier) of which (e.g. optical cable) forw ards multiplied data simultaneously, and each individual data is made module at different frequency.

B2B (Business-to-Business):

Transactions between two enterprises that are carried out by the way of networks based on IP and through other computer networks.

B2C (Business-to-Customer):

Transactions that are carried out between business and private customer th rough IP networks and via other computer networks.

CRM (Customer Relationship Management):

It is a process o r methodolog y that helps m anaging information about our clients' needs and habits and developing tighter rela tionships w ith them. CRM c ontains several technological components, but in organizationa l terms, CRM represents a set o f processes for collecting necessary infor mation on customers, sales, ma rketing efficiency, cu stomers' rea ctions and market trends. C RM helps mana ging technologies and human re sources in order to have a view of customers' behavior and value.

Downloading

Electronic transmission of information from a rem ote computer to your computer. Downloading of data files from anon ymous F TP is a popular w ay of ob taining free of charge software o f public property.

Dial-up connection:

Use of a telepho ne net work for t he pur pose of c onnecting to an other net work. I ncluded are modem and regular telephone line, ISDN card and ISDN line, etc. If you are a typical computer user, you have one or two dial-up connections: one for the link to Internet and another for the link to the network at your enterprise.

DSL (Digital Subscriber Line):

A type of fast Internet connection that utilizes standard telephone lines. It could also be a t ype of broadband connection.

xDSL, ADSL, etc.

Transmissions via the Internet n etworks based on protocols and via other computer networks. Goods and services are ordered over those net works, but pa yments and final delivery of goods or services can be carried out on/outside the off-line ne twork. Orders re ceived by telephone, fax or e-mail do not fall into this category of e-commerce.

Digital goods or services:

Goods/services that can be o rdered or delivered directly via a com puter over the Internet, e.g. films, games, computer software, "on-line" newspapers, consulting services, etc.

E-mail:

Electronic transmission of messages, including text and attach ments, between computers located inside or outside an orga nization. This comprises electronic mails o ver the Internet o r other computer networks.

Extranet:

A secure extension of Intranet en abling external u sers to have access to certain pa rts of the organization Intranet.

Electronic commerce:

E-Commerce (Electronic Comme rce) is the pu rchase or selling of goods or se rvices over the Internet particularly via the World Wide Web service. Practically this term is often used instead of the recent one, e-business, which means business over the Internet.

Electronic (digital) signature:

Electronic signat ure is meant to be a technolog y used in sy stems of electronic b usiness for checking the sig natory's authenti city, securing the integrit y of transmitted information and the irrevocability of t he electronic sig nature in the message or document. Theref ore, alike the signature in sta ndard business, the electronic signature is used in electronic business. Besides, the latter secures electronically si gned messages, which is not the case w ith personal signatures.

ERP (Enterprise Resource Planning):

ERP is a softw are system that monitors all t he aspects of business operations of a compan y. The implemente d ERP s ystem is able to integ rate business oper ations of differen t compan y functions (e.g. accountancy , sale s, production, etc.) in one entit y. One obtains t his w ay a system through which one can, on one h and, manage all human and material resources, and on the other one, develop and monitor business processes and procedures.

Firewall:

A combination of hard ware and software keepin g the s ystem secure. It is usually used to prevent an y unauthorized acce ss to the intern al local netw ork from t he outsi de. Fire wall prevents direct communication between a network and external computers.

Hardware:

A physical unit of a computer system, including external units, printers, modems, mice, etc.

Internet:

World computer network.

Internet address:

Address of one of the Internet resources. It typically reads for example:
http://www.stat.gov.rs

Intranet:

A network inside an organization based on Interne t technologies and protocols, but being onl y available to a specific group of persons, e.g. the employees.

ISDN (Integrated Services Digital Network):

A fast telephone service w hich s peed ra nges up to 128 Kbps, which is several times faster than the analogous modem.

Local Area Network (LAN):

A local network that covers and connects a group of computers, printers and other units within a relatively limited location (e.g. building)   . Ea ch connected   LAN units is a   llowed to communicate with other networks, if needed.

Network:

A group of comp uters or other de vices, such as p rinters, scanners , etc., being con nected to the communication link, w hich e nables all the dev ices to interact. It can be of   small range, linked w ith cabl es, wireless, pe rmanently, temp orary linked, ...   The Int ernet is t he largest network, the largest group of all interconnected world networks.

Server:

A computer, in a network environment, having shared resources and used by network users.

Virus:

A computer p rogram, which, b y being started-u p and installed, damages or e rases data in a computer.

Wide Area Network (WAN):

A communication net work that l inks geographically   remote com puters, printe rs and othe r devices.

Window:

A part of a scree n from which programs and proc esses can be star ted-up. Users ca n start-up several "windows" at the same time.

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