The global domain name market in 2020

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1. Introduction

The publication of ICANN statistics as at 31/12/20 allows a quantified assessment of 2020, which was marked by COVID-19 and several periods of lockdown worldwide.

The data on which this study is based come from ICANN reports (Transactions - registries), from information provided by registries in certain frameworks such as the Council of European National Top-Level Domain Registries (CENTR) or the Asia-Pacific Top-Level Domain Association (APTLD) or via their websites, and research conducted by Afnic. In some cases, we have also relied on specialised sites such as nTLDStats.com.

Our figures may vary slightly from those reported by other sources, in particular due to the lack of precise data for certain country code Top-Level Domains (ccTLDs).

A supplement to the annual review of the market for domain names in France

This study supplements our Annual review of the French domain name market published at the beginning of each year. It helps put into perspective the specific trends of the French market by comparing local data with global data.

By way of reminder:

- the growth of the French market as a whole was 6.2% in 2020 compared with 2.5% in 2019 [for the .FR TLD the respective figures were 7.0% and 3.7%];

- the market shares of the various segments were, at the end of 2020, 38% for .FR, 45% for .COM, 11% for “Other Legacy”, 3% for French-owned foreign ccTLDs and 3% for “new TLDs”.

We refer the reader to this document for more information on the French market. It can be downloaded free of charge from the Afnic website:

- In French:

https://www.afnic.fr/wp-media/uploads/2021/03/Le-.FR-en-2020.pdf

- In English:

https://www.afnic.fr/wp-media/uploads/2021/03/The-.FR-in-2020.pdf

Definitions

APTLD : Asia Pacific Top Level Domain Association.

CENTR : Council of European National Top-level domain Registries.

ICANN : Internet Corporation for Assigned Names and Numbers.

TLD (Top-Level Domain) : a domain at the highest level in the hierarchical Domain Name System of the Internet after the root domain. .FR and .ORG are top-level domains.

ccTLD (country-code Top-Level Domain) : top-level domain corresponding to a territory or country. The ccTLD for France is .FR, but there are other French ccTLDs such as .RE (Réunion), .PM (Saint Pierre and Miquelon), etc..

gTLD (generic Top-Level Domain) : generic TLD, not attached to a particular country or territory. .COM, .NET and .ORG are gTLDs.

Legacy gTLD : a generic TLD created before 2014. These are "legacy" TLDs such as .COM, .NET, .ORG or more recently (2001-2004) .INFO, .BIZ, .MOBI, etc.

nTLD (new Top-Level Domain) : generic TLD created after 2014. nTLDs are divided into several sub-segments such as geoTLDs (regions, cities, etc.), community TLDs (community-based), .BRAND (TLDs corresponding to major brands) or generic nTLDs (common dictionary terms).

Penny TLD : TLD that is free or sold at a very low price.

2. Executive summary

At the end of 2020, the global domain name market represented some 349 million domain names, including:

- 155 million .COM names,
- 32 million "Other Legacy TLD" names (.NET, .ORG, .BIZ, .INFO, etc.),
- 32 million "new TLD" names created from 2014 onwards,
- and 130 million names under ccTLDs (so-called "geographic" domains).

2020 saw the domain name market grow by 1.3%, compared with 4.7% in 2019. This performance is misleading however, as it was last year, due to a very small number of TLDs posting very significant changes;

nTLDs taken as a whole lost 1% of their stock, after growing by 19% in 2019, resuming the trend that started in 2014. Their market share held steady at 9%, but is still marginal compared with .COM domains (44%, up by 1 pp) and ccTLDs (37%, down by 1 pp). The Other Legacy segment was stable at 10%;

Overall, if we exclude 3 TLDs (.CN, .TW and .UK), the general trend was relatively positive for ccTLDs, create operations for which benefited from the acceleration of the digital transition induced by COVID.

However, the Legacy TLDs did not get the full benefit of this effect, no doubt because mass domaining was brought to a halt by the lockdowns, which also affected a number of major nTLDs. The gain in market share of the .COM domain was thus due more to the under-performances of the other segments than to any substantial advance (growth of 4.4% in stock and just 4% in create operations);

The Other Legacy TLDs (created before 2012, excluding .COM) continued to decline, but did not collapse as might have been expected in a context of ever fewer creations and increased clean-ups of portfolios. Their situations remain very uneven however, most of them having seen their creations fall by between 25% and 30% on average in 2020, the two notable exceptions being the .NET and .ORG domains, which were up by 4% and 17% respectively;

The regional dynamics of the ccTLDs continue to be very uneven, with persistent gains in Africa (+11% compared with 6% in 2019) and Latin America (+14% compared with 5%). Europe lost 0.5%, primarily due to the .UK domain, while North America gained 1.7% (compared with a loss of 5% in 2019, primarily due to .CA (Canada). Asia-Pacific (-5% compared with +11% in 2019) saw its performance dragged down by .CN (China) and .TW (Taiwan);

Among the nTLD segments, all posted growth in stock with the exception of the Generic TLDs, which lost 3%. The situation is more complex when it comes to creations, with Generic domains losing 16%, open .BRAND domains losing 39% and Community domains down by 4%. Only the Geographic domains saw their creations increase, by 45% (and .BRAND domains by 97%, but on very low volumes).

63% of new TLDs other than .BRAND had fewer than 10,000 names in portfolio, while only 1% had more than 500,000. For many of them (other than the .BRAND domains), these low volumes constitute a serious impediment to breaking even and financing their development;

“Penny nTLDs” represent 21 TLDs and 15 million domain names (compared with 20 TLDs and 16 million names in 2019), i.e. 2% of nTLDs and 48% of the overall nTLD stock. However, the composition of this very specific category is far from constant, with only 20% of the Penny TLDs from 2019 still in existence in 2020;

The study of the distribution of domain names in the various ICANN regions (by holders’ countries) shows that ccTLDs are still leaders in every region except North America, which is dominated by the .COM domain. Their dominant position was reasserted to the detriment of the .COM domain in Africa and Latin America, while the opposite effect was observed in Asia-Pacific and Europe. Other Legacy TLDs and nTLDs are still very much in the minority, even in North America where their market shares are most significant;

These data underline how difficult it is for new entrants to make their mark in the face of cultural prisms that in one case prize notions of territory and proximity, and in the other case favour a global approach and are wary of any reductive specific feature induced by the TLD chosen;

The other major determinant of the market is location, the most powerful registrars being located in North America while their counterparts in other regions are smaller, and sell ccTLDs just as well as, if not better than, gTLDs and nTLDs in order to respond to local demand and to the competition to which it leads. An analysis of the distribution of Legacy TLDs and

nTLDs by countries of groups of registrars shows North America leading by a long way, with Europe lagging badly in terms of distribution by holders' countries.

In the short term, and in 2020, the changing market reality should be seen in performances rather than strategies. The overall move towards consolidation continued, but within this we saw more and more acquisitions of business lines related to those of the major registrars, which seem to be seeking to vertically integrate the various links in the online presence value chain by acquiring monetisation specialists or online payment platforms. This development shows that the major players are seeking to take advantage of the acceleration of the digital transition observed globally. While retaining a prominent place in the system, domain names no longer play the leading role, having become components of an increasingly varied range of services that include hosting, web indexing, e-commerce, etc.

Takeovers, mergers and changes of back-end operators continued, but with only a small number of parties involved. It is difficult to say whether the profitability and sustainability objectives of these players will be achieved in a context in which create operations are trending downwards while retention rates need to be watched carefully;

The hopes (and impatience) so stridently expressed by many players in 2018 regarding ICANN's second round continued to fade, as the horizon for this second round is still some way off and 2020 brought more immediate concerns;

As already commented in previous years, the registry-registrar system will no doubt have to change in the future, by increasingly favouring the emergence of specialised or proximity resellers, who will take care of marketing nTLDs to the relevant niche markets. This transformation is by no means obvious to all players, many of whom need time to adjust their mindset. Registrars in particular often see themselves as wholesalers whose role is not to build and facilitate dealer networks optimised for any particular target group. The current response seems to be to bring together as many as possible of these reasonably viable nTLDs in groups having their own registrars and distribution channels. But this in no way solves the problem of the "last mile", that is to say access to the customer.

The market for back-end registries remains fairly dynamic, and we are likely to see profiling of offers in the next few years adapted to the resources and ambitions specific to each segment: Legacy TLDs, ccTLDs, nTLDs and their sub-segments;

As regards the registries, services linked to data (including monitoring and security), the improvement of DNS infrastructures and cybersecurity have remained the main avenues of

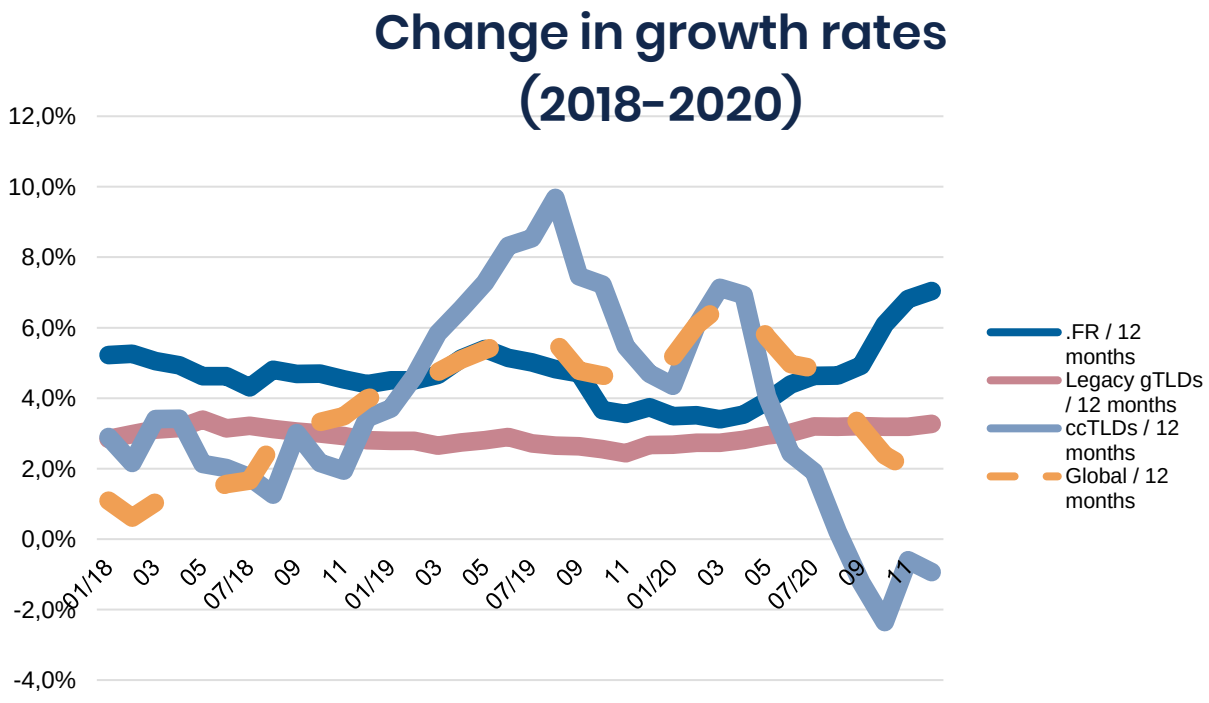
development and diversification alongside new services aimed at boosting sales (suggesting attractive names, etc.).

3. Global trends

The domain name market (excluding Penny TLDs) represented approximately 349 million names worldwide at year-end 2020, up by 1.3% from 2019 (346 million). After continuing the growth initiated in 2018 until July 2019, the market fell slightly in the third quarter of 2019 before resuming its rising trend in the last quarter, buoyed by the .ICU domain. This recovery came to an abrupt halt in the second quarter of 2020, annual growth going from 6.1% YTD end-of-April to 1.3% for the whole year.

3.1. The COVID shock?

The following figure shows that the various segments performed unevenly in 2020: Legacy TLDs held steady, while ccTLDs nosedived from May on, dragging the market with them. In this report, we will explain the causes of this development and the real impact of COVID on ccTLDs. The .FR curve shows that this TLD had an exceptional year in 2020, but many other ccTLDs present a similar profile. The overall trend observed may therefore be misleading in attributing to COVID a negative effect that it did not really have, at least for ccTLDs.



The new TLDs are not included in this figure because their large variations would overwrite the other curves. These were +15% in 2018 and +20% in 2019 but -1% in 2020, the strong growth

resulting from the .ICU bubble having switched to sharp decline from October 2020 when .ICU domains started to expire, added to which was the heavily negative balance of the .TOP domain.

3.2. Persistently contrasting performances

Table 1 below shows the main indicators for each market segment between 2018 and 2020.

	Stock (m DNs)			Variations (%)			Market share (%)		
	2018	2019	2020	2018	2019	2020	2018	2019	2020
.COM	142	149	155	5,2 %	4,8 %	4,4 %	43 %	43 %	44 %
Other Legacy TLDs *	34	32	32	-6,0 %	-6,0 %	-1,8 %	11 %	10 %	10 %
nTLDs	27	33	32	15,4 %	19,2 %	-1,0 %	8 %	9 %	9 %
Total gTLDs **	*204*	*214*	*219*	*4,3 %*	*4,9 %*	*2,6 %*	*62 %*	*62 %*	*63 %*
ccTLDs ***	126	132	130	3,5 %	4,7 %	-0,9 %	38 %	38 %	37 %
TOTAL	**330**	**346**	**349**	**4,0 %**	**4,7 %**	**1,3 %**			
Penny ccTLDs *****	*31*	*49*	*41*	*26,0 %*	*54,9 %*	*-15 %*			

m DNs: Year-end data expressed in millions of domain names.

* Other Legacy TLDs: generic TLDs created before 2012, such as .AERO, .ASIA, .BIZ, .NET, .ORG, .INFO, .MOBI, etc.

** Total gTLDs: measures all the domain names managed under a contract with ICANN. This includes the new TLDs, some of which are not, strictly speaking, "generic".

*** ccTLDs or "country code Top-Level Domains", i.e. domains corresponding to territories, such as .FR for France. The data presented do not include "Penny TLDs" i.e. ccTLDs retailed at very low prices or free of charge. These ccTLDs are subject to very large upward and downward movements that do not reflect actual market developments and distort aggregate data.

**** Penny ccTLDs: estimated volume of names filed in these "low-cost" or free domains.

With 155 million names (+6 million in 2020), the .COM domain remains the market heavyweight, and continues to increase its market share. Although it slowed constantly from 2018 to 2020, its growth remains enviable for a TLD of its size, especially in view of the circumstances.
The "Other Legacy" TLDs continued to lose stock in 2020, but less markedly than in 2018 and 2019. The trend could be towards a certain stabilisation despite the context of COVID which could, however, weigh down both create and renew operations.

The new TLDs were in balance, with a slight loss of stock (-1%). But their overall development was strongly conditioned by a small number of TLDs, led by the .ICU and .TOP domains. The country TLDs (ccTLDs) also ended the year on a note of stability, posting a slight loss in stock. Their case is similar to that of the nTLDs, the variation being determined by a small number of ccTLDs.

Market shares held fairly steady overall. The .COM domain gained one percentage point at the expense of the ccTLDs, thanks to its sustained growth.

2019 had been marked by contrasting performances of the various segments, largely due to the .ICU TLD. But apart from certain large variations, the overall trend appeared relatively stable. This report studies how this underlying trend was affected by the exceptional circumstances prevailing in 2020.

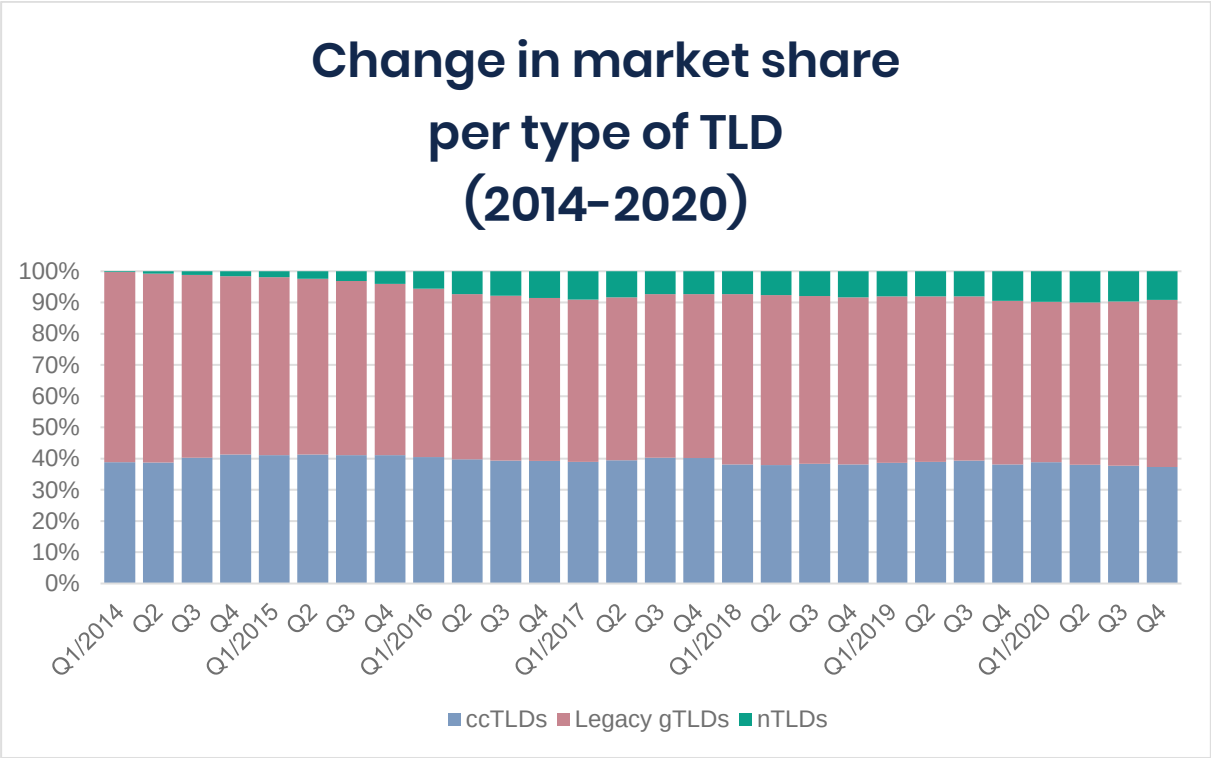
3.3. nTLDs, objects of speculation or vectors of development?

The chart below shows a quarterly view of the change in market share of the various segments since the introduction of the first nTLDs in January 2014.

Note the sustained growth of nTLDs up to Q1 2017, followed by a period of decline in Q2 and Q3 2017 and stabilisation up to Q3 2019. At the end of 2019 there was a new uptick due to the .ICU domain, but not enough to pass the 10% market share mark. A decline can be observed in Q3 and Q4 2020.

Trends in nTLDs are often reflected in those in ccTLDs, with gTLDs remaining stable or increasing their share only marginally. The growth of the .COM domain is partly offset by the decline in "Other Legacy" domains. Apart from this, the most significant movements in ccTLDs are often due to windfall effects leading to waves of "domaining" (as with the .TW and .UK domains in 2019). This might lead one to suppose that it is always the same "public" involved, switching investments as opportunities present themselves and thereby engendering a volatility that is likely to be a source of erroneous interpretation.

The 20/80 rule (and even the 5/95 rule) indeed applied in 2020, as it had done in 2019: a small number of TLDs accounted for the bulk of the net balance (positive or negative), thus masking the performances of the other TLDs which are less subject to speculative transactions.



3.4. Strengthening of .COM positions in 2020

The same data expressed as net balances highlight the weight of the different segments in the overall performance of the market in 2020.

We see that in a context in which the three other segments (Other Legacy TLDs, ccTLDs and nTLDs) were losing stock, the .COM domain, which was growing, acted as a driver, or at the very least as a stabiliser, for the market.

The data in absolute values allow us to establish orders of magnitude. Thus the net balance of the .COM domain alone in 2020 represents ten times that of the Other Legacy TLDs, twenty times that of the nTLDs and five times that of the ccTLDs.

	Net balance (millions of DNs)			Weight in the total		
	2018	2019	2020	2018	2019	2020
.COM	7,0	6,8	6,5	56%	43%	148%
Other Legacy TLDs	-2,2	-2,1	-0,6	- 17%	- 13%	- 14%
nTLDs	3,7	5,3	-0,3	29%	33%	- 7%
Total gTLDs	*8,5*	*10,0*	*5,6*	*67%*	*63%*	*127%*
ccTLDs (excluding « Penny »)	4,3	5,9	-1,2	33%	37%	- 27%
TOTAL	**12,8**	**15,9**	**4,4**	**-**	**-**	**-**

These data give us some idea of the relative positions and dynamics of the major market segments - Legacy TLDs, ccTLDs and nTLDs - but they do not explain them. Now let us take a closer look at each of these three segments to try to better understand the phenomena at work in 2020.

4. Legacy TLDs in 2020

There are now 18 “Legacy TLDs”, or “traditional” domains created before 2012: AERO, ASIA, BIZ, CAT, COM, COOP, INFO, JOBS, MOBI, MUSEUM, NAME, NET, ORG, POST, PRO, TEL, TRAVEL and XXX.

The stocks of these Legacy TLDs vary enormously, from the handful of names in the .POST domain to the 155 million of the .COM domain.

In order to present relevant summary tables and indicators, we shall distinguish only the six biggest in volume terms, aggregating the other 12 under “Others”.

	Stocks (thousands)			Create operations (thousands)			« R » (thousands) (*)		
	2019	2020	Var.	2019	2020	Var.	2020	% 2020	% 2019
.BIZ	1 635	1 441	-12 %	328	232	-29%	1 210	74%	58%
.COM	148 817	155 320	4 %	37 816	39 421	4%	115 899	78%	78%
.INFO	4 942	4 455	-10 %	1 403	1 036	- 26%	3 419	69%	64%
.MOBI	435	380	-13 %	56	41	- 26%	338	78%	79%
.NET	13 737	13 704	0 %	2 456	2 561	4%	11 142	81%	79%
.ORG	10 454	10 788	3 %	1 719	2 013	17%	8 775	84%	82%
Autres	1 120	983	-12 %	283	217	- 23%	766	68%	72%
TOTAL	**181 140**	**186 088**	**3 %**	**44 060**	**45 305**	**3 %**	**140 783**	**78 %**	**78 %**

* “R” refers to the number of domain names retained in 2020. This figure is obtained by a fairly simple equation: R = Stock at 31/12/2020 - Create operations 2020.
This is because the stock of a TLD at the end of 2020 is mathematically constituted by the names of the stock as at 31/12/2019 retained in the portfolio to which have been added the domain name creations of 2020. It is therefore possible to deduce a “retention rate” based on these data from the various registries at ICANN [% R] for the names that were in stock at the end of 2019.
Rr R 2020 = R / Stock 2019
This retention rate should not be confused with the Renewal Rate, which only concerns the names that were up for renewal during the year in question. Names filed for several years are “retained” but not “renewed.

In 2020, the total stock of the “Legacy” TLDs grew by 3% (as it had done in 2019), as did creations, while the retention rate held steady at 78%. However, situations are highly disparate.

4.1. The .COM domain versus Other Legacy TLDs: persistently contrasting situations

The data presented above show that the situations of the main Legacy TLDs differ profoundly. The .COM domain dominates by volume but also by growth: apart from the .ORG TLD it is the only one of the six main Legacy TLDs to continue to grow, with create operations up by 4% offsetting a slight fall in the retention rate (not visible in the rounded data of this table).

Among the other major Legacy TLDs, the .ORG domain also performed well, with increases of 3% in its stock and of 17% in create operations, together with a 2 pp improvement in its already high retention rate.

The .NET domain lost only 30,000 names, thanks to an increase of 100,000 in create operations, possibly linked to a promotional campaign. Its retention rate also increased by 2 pp.

The other three major Legacy TLDs are in more difficult situations, as, with the exception of the .MOBI domain, the improvement in their retention rates was insufficient to offset the drastic decline (26% to 29%) in create operations. In the end they all lost stock.

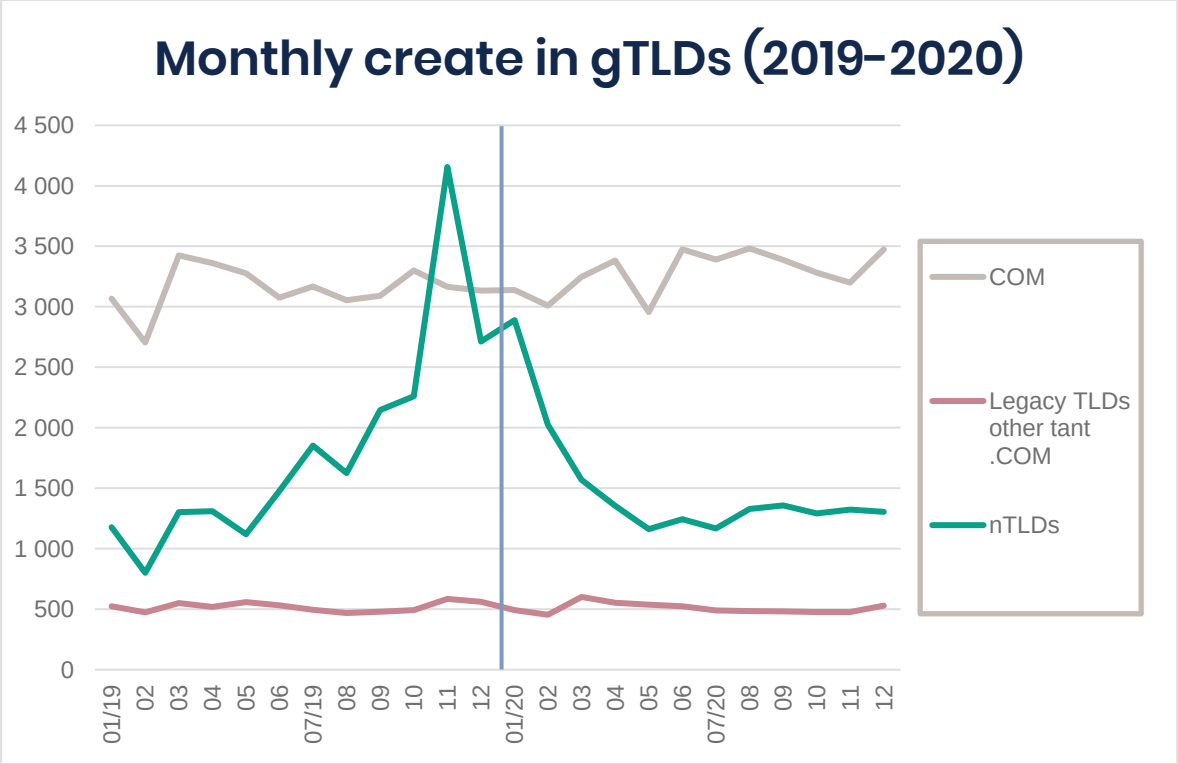
The situation is even worse for the Legacy TLDs that we grouped in "Others": overall their retention rates declined by 4 pp and their create operations fell by more than 20%.

It was as if users, in the context of lockdown, had always preferred the .COM and .ORG domains and neglected the others. This might also be partly due to a decline in the number of names registered by way of "domaining" or brand protection, two traditional drivers of TLDs that are less well known to the public and relatively little used.

4.2. Create operations in Legacy TLDs in times of COVID

Although the .COM domain saw its create operations increase in 2020, the 4% performance remains moderate for a benchmark TLD during a digital transition precipitated by successive lockdowns. By way of comparison, create operations of the .FR domain increased by 14% in 2020, and this was by no means an isolated case. The following figure shows that create operations of the .COM domain, on the contrary, remained stable in 2020, moving in a range of 3 to 3.5 million a month.

One possible explanation of this counter-intuitive phenomenon is that in reality the wave of create operations linked to the lockdowns did indeed take place, but was largely offset by the collapse of mass "domaining". Consequently, the 4% increase was perhaps actually greater, comparable with those observed in the ccTLDs, but the .COM domain was penalised by the sharp decline in registrations by "domainers".



The stability of create operations of the Legacy TLDs other than .COM masks the sharp decline in creations of most of them, offset by the increased number of creations in the .NET and .ORG domains. This segment remains fragile, relying on specific circumstances which in 2020 worked in favour of the .ORG domain in particular.

As for the nTLDs, we see the ".ICU effect" in Q2 2019. Once this was past, creations returned to their usual level of between 1 and 1.5 million creations a month. Their stability despite COVID raises questions, even though it is an overall average masking marked disparities. Taken as a whole, creations of nTLD names did not collapse, but nor did they take off. It is possible that the offset phenomena described in the case of the .COM domain was also at work in the major nTLDs, and that the changes in these major nTLDs swamped those of the more modestly sized nTLDs.

4.3. Moderate improvement in retention rates

The retention rate is a key indicator for a TLD. On the one hand, it reflects the "loyalty" of the domain name holders, providing clear information on the durability of the TLD. On the other hand, the financial solidity of a registry depends essentially on the invoicing of renewal fees. For a reasonable well-established registry, these annual fees generally account for more than 75% of its total revenues. The growth dynamic comes from create operations, but the basis is formed by renewals.

As we have seen, particularly in the case of the .BIZ domain in 2019, there are close links between the quality of create operations for a given year and the retention rate for the following years. A "highly successful" free campaign can lead to mass delete operations one year later. These rates must also be considered over time, endeavouring to smooth out the variations linked to one-off events. For example, the strong improvement observed for the .BIZ domain in 2020 is in reality just a return to normal in the absence of any new promotional campaign.

	2015	2016	2017	2018	2019	2020	Var. 19/20 (in pts)	Avg. 2015-2020
.BIZ	68,3%	76,2%	66,4%	66,9%	58,4%	74,0%	+ 15,6	68,4%
.COM	77,4%	78,2%	77,4%	78,9%	78,1%	77,9%	- 0,2	78,0%
.INFO	65,3%	76,6%	66,9%	57,8%	63,9%	69,2%	+ 5,3	66,6%
.MOBI	68,6%	76,6%	70,8%	78,2%	79,1%	77,8%	- 1,3	75,2%
.NET	76,7%	79,6%	73,9%	77,1%	79,0%	81,1%	+ 2,1	77,9%
.ORG	78,4%	82,2%	79,6%	80,4%	81,9%	83,9%	+ 2,0	81,1%
Autres	81,4%	82,5%	64,8%	73,6%	72,0%	68,4%	- 3,6	73,8%
TOTAL	**76,8%**	**78,5%**	**76,6%**	**77,8%**	**77,7%**	**78,2%**	**+ 0,5**	**77,6%**

Change in Retention Rates for Legacy gTLDs (2015-2020)

The above table clearly shows this phenomenon, reflecting the profiles of the strategies adopted by the registries.

With their 67% and 69% average retention rates over the period 2015-2020, the .INFO and .BIZ domains seem more geared to aggressive marketing strategies than the .COM or .NET domains.

The .ORG domain has the strongest rate in 2020 and on average, which no doubt reflects real loyalty on the part of its DN holders. The .MOBI domain improved its performance in 2018-2019 but took another nosedive in 2020, although remaining above its average.

These data are fundamental for the registries: a low retention rate creates the obligation to offset deletions with creations so as not to lose stock. Overly aggressive low-cost strategies lead to vicious cycles in which the registry finds itself forced to boost its creations to maintain its stock, thus causing the quality of the stock to deteriorate even further by encouraging speculative registrations that are not followed by lasting use.

Conversely, a TLD with an exceptionally high retention rate but that does not encourage creations becomes the archetypal cash cow, living on its stock as long as the names are not abandoned by their owners. This fate, albeit perhaps less stereotypically, could await certain Legacy TLDs in the future.

4.4. Implications in terms of naming strategies

We have already noted that the improvement in retention rates of certain TLDs could be linked to the end of "purges", that is to say that the names remaining in the portfolio are intended to be kept in increasing proportions.

There are four main reasons for keeping a domain name:

- (a) because it is used and therefore important for its holder;;
- (b) because the holder wants to keep the name even if they are not using it at present (current project, conviction that the name will gain value, etc.);
- (c) because it corresponds to a brand that the holder wants to protect (defensive domain registration);
- (d) because the holders are lackluster in the management of their domain names and renew the names without questioning the merits of the operation.

Among all these reasons, (1) and (2) are the strongest because they are related to uses or to a perception of value. (3) and (4) are the weakest and very sensitive to price changes and to the appearance of new TLDs that may need to be registered. This leads to disposals in a context where budgets are not infinitely expandable. Sums spent on defensive registrations in Legacy TLDs are allocated to other defensive registrations in nTLDs, and holders who have managed their portfolios rather loosely are forced to adopt optimisation strategies. It seems indeed necessary, to reduce costs, to limit creations in relatively unattractive and/or low-risk domains since they are less and less well known to users.

It is more than likely that the Legacy TLDs (except the .COM) suffer from these disposal strategies that dry up their create operations and force them either to practice aggressive promotional campaigns to temporarily maintain their stocks, or to assume a certain decline while looking for ways to retain their current holders.

The good health of the .COM in terms of create operations (+6% in 2018 and +7% in 2019) can be explained by the existence of campaigns, but it is more probably due to a refocusing of users on the TLDs they know best. It is these TLDs (.COM and the main ccTLDs) that are still the

subject of sustained create operations and generally enjoy high retention rates. The consequence is that the domainers, when they are not Chinese, tend to favour the TLDs that are well-established at the expense of newcomers with a higher risk profile.

These different phenomena (the refocusing of create operations, the disposals of retained names, a relative loss of interest in defensive filings and speculative operations, largely explain the decline of the "Other Legacy TLDs", the difficulties of many nTLDs in finding their market, and the relative good health of the .COM and the main ccTLDs. The slowdown in domaining and the acceleration of the digital transition, which have contrary effects on creations, are two new factors that have been grafted on to the pre-2020 context. Time will tell whether they have a lasting influence on the market or whether their effects will dissipate as things return to normal.

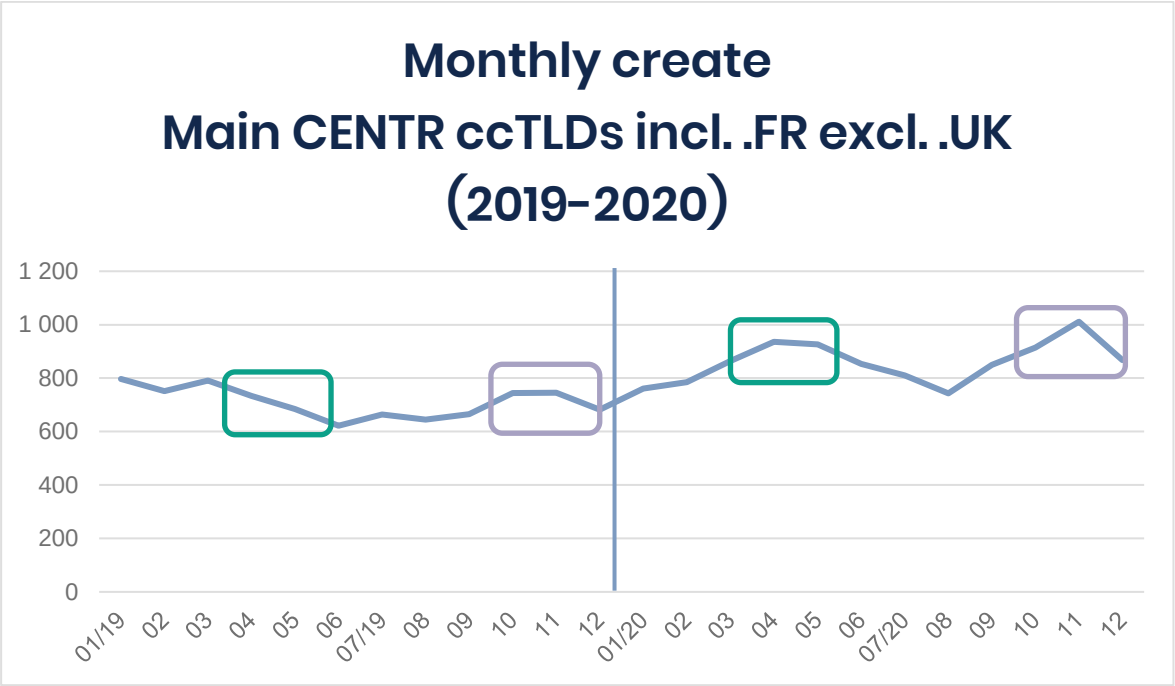
5. ccTLDs (Country-Code Top Level Domains)

Taken as a whole, ccTLDs lost 0.9% in 2020, as against growth of 4.7% in 2019. But the overall figure for 2020 does not reflect the reality experienced by most ccTLD registries in 2020, which was that of a strong increase in create operations due to the acceleration of the digital transition.

5.1. Create operations in ccTLDs in times of COVID

In contrast with create operations of other segments, those of ccTLDs generally increased substantially in 2020. This could be because these TLDs had been less subject to mass domaining than others and therefore their create operations benefited fully from the digital transition without being affected by the slowdown in activity of the mass domainers.

A study conducted by CENTR of a sample of the biggest ccTLDs indeed shows that create operations increased from a range of 0.6 to 0.8 million a month to one of 0.8 to 1 million a month. The increase was 23% between March/May 2019 and March/May 2020 and 29% between Q4 2019 and Q4 2020. Figures for the first few months of 2021 are 20% up on those of the same period in 2020 (pre-lockdown).



These data prove that there was indeed an effect due to the acceleration of the digital transition from March 2020, which turbocharged the performances of most of the ccTLDs. What is more, this effect seems to be consolidating, although it is too soon to be categorical while restrictive measures of varying degrees of strictness persist, depending on the country.

5.2. Marked impact of Covid on regional dynamics régionales of ccTLDs

COVID has had at least two diametrically opposed effects: on the one hand, the acceleration of the digital transition, which drove create operations; and on the other hand, the reduction in economic activity, which weighed on the activities of the mass domainers and on renewals. As regards this latter factor, the impact will probably be greater in 2021 than in 2020, since a large number of businesses will have proven too fragile to survive a year of lockdowns, and this will coincide with the expiry of names registered during the epidemic.

Since mass domaining affects ccTLDs to a lesser extent, this element is less sensitive case by case, but it remains a valuable aid to understanding the changes in three large ccTLDS which affect the overall performance of the segment: .CN (China) and .TW (Taiwan) in Asia-Pacific, and .UK (United Kingdom) in Europe.

North America remains stable, posting slight growth following the losses of the preceding years. Its market share increased marginally.

Latin America grew strongly, as did Africa, doubling its 2019 growth rate.

Asia-Pacific was the big loser, mainly due to the .CN and .TW domains. Its market share fell back to that of 2018.

Lastly, Europe also lost ground in terms of stock, affected by the "correction" of the .UK domain, but gained a little in market share since its decline was less marked than that of the world market as a whole.

Data excl. "Penny" ccTLDs	Stock (millions)			Variations (%)		Market share (%)			
	2018	2019	2020	2019	2020	2018	2019	2020	20/19
North America	4,9	4,6	4,7	-5,2%	1,7%	3,9%	3,5%	3,6%	+ 0,1
Latin America	8,2	8,6	9,7	5,0%	13,5%	6,5%	6,5%	7,4%	+ 0,9
Africa	2,1	2,2	2,4	6,1%	11,3%	1,6%	1,7%	1,9%	+ 0,2
Asia-Pacific	39,4	43,7	41,0	11,0%	- 5,4%	31,2%	33,1%	31,4%	- 1,7
Europe	71,7	73,0	72,7	1,8%	- 0,5%	56,8%	55,3%	55,7%	+ 0,4
TOTAL	**126,2**	**131,6**	**130,5**	**4,7%**	**- 0,9%**				

We will now highlight the most pertinent variations for each region and explain the reasons for the variations noted above, while at the same time showing the extent to which the market continues to depend on a small number of TLDs.

North America	Stock (millions)		Var. (%)	Var. (M)
	2019	2020	2020	2020
.CA	2,8	3,0	+ 6,3%	+ 0,2
.US	1,8	1,7	- 5,8%	- 0,1
Others	0	0	+ 0,0%	-
TOTAL	**4,6**	**4,7**	**+ 1,7 %**	**+ 0,1**

The leading ccTLD in North America is the .CA domain (Canada) with three million names. This TLD has benefited from the acceleration of the digital transition in Canada, whereas the .US domain continued to decline.

Africa	Stock (millions)		Var. (%)	Var. (M)
	2019	2020	2020	2020
.ZA (South Africa)	1,2	1,2	+ 6,0%	+ 0,0
.IO (British Indian Ocean Terr.)	0,5	0,6	+ 16,2%	+ 0,1
Others	0,5	0,6	+ 18,4%	+ 0,1
TOTAL	**2,2**	**2,4**	**+ 11,3%**	**+ 0,2**

The uncontested leader in the African region is the .ZA (South Africa) domain, followed by .IO (British Indian Ocean Territory). The .IO domain, however, forms part of the "quasi-ccTLDs", in other words it is sold as a generic TLD, the more so as there are no longer any inhabitants in the territory concerned. All the other African ccTLDs have relatively low volumes. Overall however, performance was essentially due to these "Other ccTLDs" and to the .IO domain rather than to the .ZA domain, despite the latter's positive growth.

Latin America And Caribbean	Stock (millions)		Var. (%)	Var. (M)
	2019	2020	2020	2020
.BR (Brazil)	3,5	3,8	+ 8,9%	+ 0,3
.CO (Colombia)	2,3	2,9	+ 23,9%	+ 0,6
.MX (Mexico)	1,2	1,4	+ 14,1%	+ 0,2
Others	1,6	1,6	+ 7,6%	+ 0,0
TOTAL	**8,6**	**9,7**	**+ 13,5%**	**+ 1,1**

The three leading ccTLDs in the Latin America and Caribbean region are .BR (Brazil), .CO (Colombia) and .MX (Mexico). However, the .CO domain is also a "quasi-gTLD" since it is sold as an alternative to the .COM domain (and so far has not obtained the success hoped for compared with the 155 million .COM names). The variations were relatively small in absolute terms, but they were significant in percentage terms, particularly in the case of the .CO domain, which alone accounted for 50% of the net variation.

Asia-Pacific	Stock (millions)		Var. (%)	Var. (M)
	2019	2020	2020	2020
.IN (India)	2,1	2,4	+ 12,6%	+ 0,3
.IR (Iran)	1,2	1,4	+ 19,8%	+ 0,2
.ID (Indonesia)	0,4	0,5	+ 38,4%	+ 0,1
.LA (Laos)	0,1	0,2	+ 342,7%	+ 0,1
.TW (Taiwan)	3,1	1,5	- 53,1%	- 1,6
.CN (China)	25,9	24,2	- 6,6%	- 1,7
Others	10,9	10,8	- 1,0%	- 0,1
TOTAL	**43,7**	**41,0**	**- 5,4%**	**- 2,7**

The ccTLD with the greatest weight in Asia-Pacific is incontestably the .CN domain (China), variations in which, positive or negative depending on the year, turbocharge or drag on the performances of the region as a whole. This was once again the case in 2020, with a loss of 1.7 million names, representing nearly two-thirds of the regional variation. The .TW domain lost nearly as many names as the .CN domain in absolute terms, which at its scale represented more than half its stock.

We note the good performances of the other ccTLDs mentioned: .IN, .IR but also .LA, which is a "quasi-gTLD" since it is marketed as the TLD of Los Angeles.

Europe	Stock (millions)		Var. (%)	Var. (M)
	2019	2020	2020	2020
.DE (Germany)	16,3	16,7	+ 2,3%	+ 0,4
.FR (France)	3,4	3,7	+ 7,0%	+ 0,3
.NL (Netherlands)	5,9	6,1	+ 3,3%	+ 0,2
.IT (Italia)	3,2	3,4	+ 4,2%	+ 0,2
.PT (Portugal)	1,2	1,3	+ 11,0%	+ 0,1
.CH (Switzerland)	2,3	2,4	+ 5,0%	+ 0,1
.UK (Great-Britain)	13,0	10,9	-16,8%	- 2,1
Others	27,7	28,2	+ 1,8%	+ 0,5
TOTAL	**73,0**	**72,7**	**- 0,5%**	**- 0,3**

Europe is the region with the biggest number of large-volume ccTLDs. Its two leaders are the .DE domain (Germany) and the .UK domain (United Kingdom), but in terms of variations it was above all the .UK domain that was significant in 2020, with a loss of 2.1 million names. This TLD was the only one to lose stock among the leaders referred to.

From all these data, it is evident that the global performance is misleading, the good performances of most of the ccTLDs being swamped by the losses of the .CN, .TW and .UK TLDs. Overall, the ccTLDs held up well under the onslaught of COVID in 2020, even if not benefiting from the consequences in terms of digital transition. It remains to be seen whether the prolongation of the health crisis will end up weighing heavily on renewals and create operations once the digital transition runs out of steam.

The following table shows the distribution by volume bracket of ccTLD domain names in the various parts of the world. We have taken account of all ccTLDs except "pennies" (see hereunder) and IDNs, breaking them down into the same brackets as the nTLDs (see this section) in order to facilitate comparison.

ccTLDs in IDN (internationalised domain name) format, that is to say in non-ASCII characters, generally have confidential or zero volumes, with the notable exception of the .РФ domain (Russian Federation in Cyrillic script) which has more than 700,000. It is the only IDN ccTLD that we have included in our table.

Volumes	AF	ALAC	AP	EU	AN	Total 2020	% 2020	% 2019
1 million or more	1	3	7	16	2	**29**	**12%**	**11%**
500,001 to 1 million	1	1	2	7	-	**11**	**5%**	**4%**
100,001 to 500,000	1	2	13	12	-	**28**	**12%**	**11%**
50,001 to 100,000	3	3	7	3	-	**16**	**6%**	**6%**
25,001 to 50,000	3	4	5	3	-	**15**	**5%**	**5%**
10,001 to 25,000	7	6	7	6	-	**26**	**11%**	**11%**
5,001 to 10,000	11	7	7	3	2	**30**	**12%**	**12%**
5,000 or fewer	28	22	28	7	1	**86**	**36%**	**39%**
TOTAL	**55**	**48**	**76**	**57**	**5**	**241**		

Breakdown of ccTLDs by volume bracket

This table clearly shows the inequality among regions, with Europe accounting for 50% of ccTLDs with more than a million names (16 out of 29) and only 8% of those with fewer than 5,000 names (7 out of 86).

As a result of the overall growth, and as further evidence that the negative variations are due to a handful of large ccTLDs, the proportions of the various brackets have developed favourably since 2019, with the lowest bracket (5,000 names or fewer) declining by 3 pp and the three biggest brackets (100,000 names or more) each gaining 1 pp.

We will come back to the distribution of domain names in the world later in the study with some explanatory elements.

5.3. Weight of quasi-TLD and penny-ccTLDs

To avoid bias due to their high volatility, we have excluded from our global tracking the penny-ccTLDs made specific by the innovative marketing strategies of their registries. But this does not detract from the interest of following this sample over time in view of its rather atypical profile. The penny-ccTLDs identified are .CC (Cocos Islands), .CF (Central African Republic), .GA (Gabon), .GQ (Equatorial Guinea), .ML (Mali), .PW (Palau), and .TK (Tokelau). No others emerged in 2020.

The quasi-gTLDs remain included in the global tracking since their business models are more traditional and do not resort to low-cost strategies. On the contrary, their originality consists in using country codes for generic purposes. In this study we consider the following domains as quasi-gTLDs: .TV (Tuvalu - “Television”), .ME (Montenegro - “Me / Myself”), .CO (Colombia– “Commercial”), .NU (Niue Island– “New” in Swedish), .IO (British Indian Ocean Territory), and .LA (Laos - “Los Angeles”). We have added .VC (Saint Vincent and the Grenadines - “Venture Capitalist”).

If we distinguish three ccTLD segments based on the marketing strategies of their registries, the “true ccTLDs”, the “quasi-gTLDs” and the “penny-ccTLDs”, we obtain the data collected in the table below.

		2016	2017	2018	2019	2020
ccTLDs	**Stock**	**113,8**	**117,3**	**121,7**	**127,5**	**124,9**
	Variation	*7,5*	*3,5*	*4,4*	*5,8*	*- 2,6*
	Var. (%)	*7%*	*3%*	*4%*	*5%*	*- 2%*
Quasi-gTLDs	**Stock**	**4,5**	**4,6**	**4,5**	**4,6**	**5,4**
	Variation	*0,4*	*0,1*	*-0,1*	*0,1*	*0,8*
	Var. (%)	*11%*	*1%*	*-1%*	*3%*	*17%*
Penny-ccTLDs	**Stock**	**22,9**	**24,9**	**31,3**	**48,6**	**41,2**
	Variation	*-7,7*	*2,0*	*6,4*	*17,3*	*- 7,4*
	Var. (%)	*-25%*	*9%*	*26%*	*55%*	*- 15%*
TOTAL	**Stock**	**141,2**	**146,7**	**157,5**	**180,6**	**171,5**
	Variation	*0,1*	*5,6*	*10,8*	*23,1*	*- 9,2*
	Var. (%)	*0%*	*4%*	*7%*	*15%*	*- 5%*

In 2020 there was an explosion of quasi-gTLDs, with growth of 17% as against -2% for the "classic" ccTLDs and -15% for the penny-ccTLDs. We saw above that the .CO, .LA and .IO domains did particularly well in 2020. Perhaps this reflects a strategy of certain domainers who have preferred them to penny-ccTLDs, contrary to what was observed in 2019. There are therefore swings among the various TLDs depending on the circumstances from which the mass domainers seek to profit.

Penny ccTLDs are found only in Africa and Asia-Pacific, as shown in the table below. The figures indicate that in 2020, African Penny TLDs suffered proportionally more than their Asia-Pacific counterparts, but given the high volatility of this segment it makes no sense to try to use this as a basis for forecasting 2021.

Data	**Stock (millions)**			**Variations (%)**		**Proportions (%)**			
« Penny » ccTLDs	**2018**	**2019**	**2020**	**2019**	**2020**	**2018**	**2019**	**2020**	**20/19**
Africa	8,3	19,6	15,0	135%	- 23%	27%	40%	36%	- 4
Asia-Pacific	23,0	29,0	26,2	26%	- 10%	73%	60%	64%	+ 4
TOTAL	**31,3**	**48,6**	**41,2**	**55%**	**- 15%**				

According to some sources, some of these registries do not delete names even if they are unused and not renewed, which distorts the figures and provides yet another reason to

separate them from the other ccTLDs. This phenomenon is found also with nTLDs, which complicates any analysis made of ongoing trends.

6. nTLDs

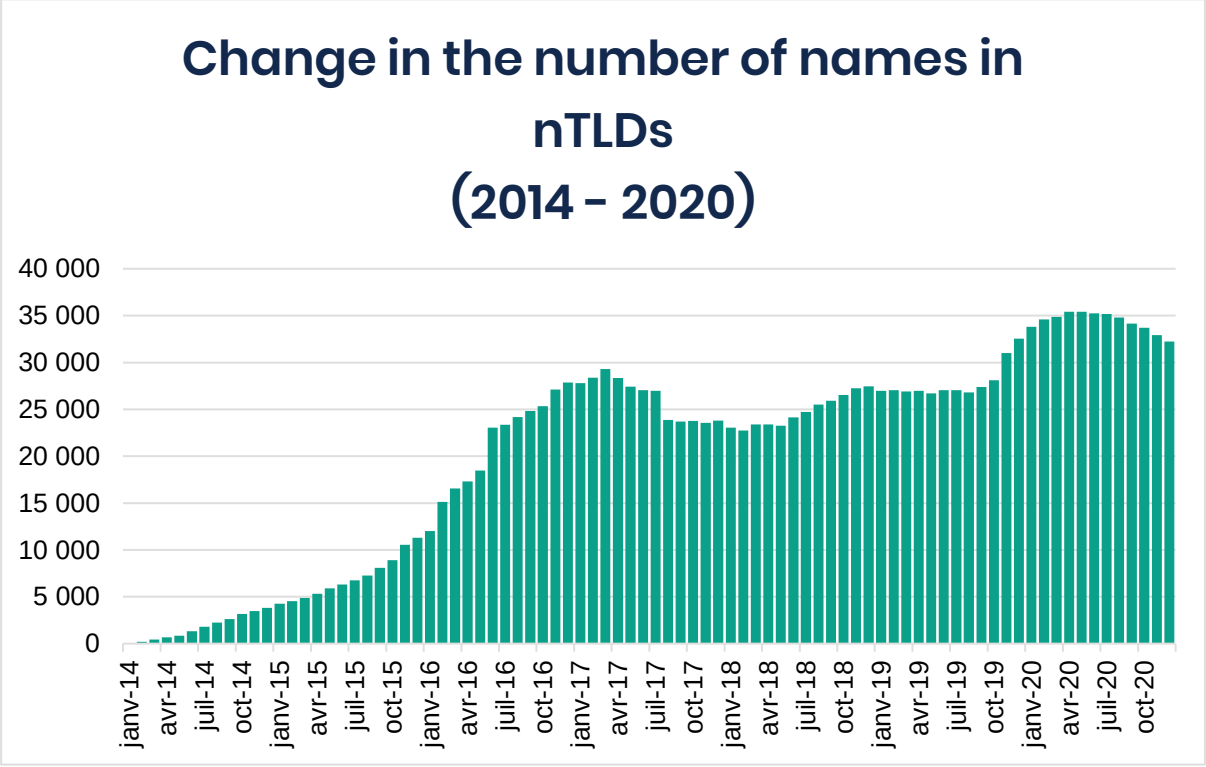
It should be recalled that in many cases the only thing new TLDs have in common is the fact that they are "new"... post-2012. This is not enough to classify them, since this characteristic is disappearing as time goes by (and will disappear definitively at the time of the next ICANN round).

All too often, observers refer to the success or failure of new TLDs without taking time to group them into segments that make sense and allow for a more nuanced approach, criteria for assessing performances being quite different from one segment to another.

That is why, having presented the overall trends in nTLDs, we will study each of these segments in detail in order to gain a better understanding of their dynamics.

6.1. Global change in the stock of new TLDs

The historical peak in nTLDs reached in March 2017 was surpassed in November 2019, with a new all-time high in December. But this movement was interrupted in 2020 with a high of 35 million names in April/May. The decline accelerated from October with the start of the "purge" of the .ICU domain. At the end of 2020, the number of nTLDs was essentially unchanged from the beginning of the year. It also corresponded to the long-term trend that started in 2014/2015 and was resumed in October 2019 after the dislocations that followed the waves of mass filings in 2016 and early 2017.



Strong waves of creations are succeeded almost systematically by periods of depression, which are gradually overcome before new bursts of registrations boost the stock.

This implies that the various waves must be considered with caution, and the trends as medium rather than short term, especially when variations are due to a very small number of TLDs.

The fact that the overall stock of nTLDs seems "stuck" to a long-term linear trend remains worrying however, since a linear expansion means that the number of names registered per nTLD has remained lower than it should have been in view of the diversity of nTLDs appearing on the market since 2014. Beside a few nTLDs playing the volume card at any price, the vast majority are "vegetating" far below expectations.

An analytical grid taking account of the models and specific features of the nTLDs is therefore essential in order to understand what is going on.

6.2. Definition of new TLD "segments"

This is why we have created different market segments, corresponding to the most frequent approaches in specialist circles. Since these TLDs are still relatively young, the uses made of them may lead to revisions of this segmentation, which is still very much geared to the nature of the TLDs and their conditions of eligibility:

- **Community:** domain name filings reserved to members of a community, use being community-centric.
- **Geographic:** nTLDs of a geographical character designating a city or region.
- **Generic:** nTLDs consisting of generic terms.
- **Brands:** TLDs corresponding in general to flagship brands, registered by private entities for internal use or extended to their customers and partners.
- **"Open" brands:** TLDs corresponding to brands, registered by businesses owning these brands and open to holders other than the business, its subsidiaries or partners. These TLDs are few in number (eight), but the volumes registered make this a fully-fledged segment, comparable with that of generic TLDs.

Our nTLD segmentation attempts to reflect the purpose of TLDs rather than their ICANN status, since these are difficult to classify and have sometimes been adopted for tactical reasons (such as to obtain the privileges granted to Community nTLDs). There is currently no

"official" nTLD nomenclature, so our segmentation is subject to change based on information made public by the registries or ICANN.

An additional complicating factor is the degree of restriction required by each registry. Access to a .BRAND domain can be relatively "open" (if the only condition to be met is, for example, being a client of the delegatee) while the registration of a Generic TLD may also be subject to conditions. nTLDStats.COM, which proposes a nomenclature, relies on a framework that ranges from "Unrestricted" through "Semi-restricted" and "Brand" to "Restricted". However, while this approach may explain the volumes (or their absence) by reference to eligibility conditions, it tells us nothing about the purpose and the marketing positioning of nTLDs.

Furthermore, we have observed that certain nTLDs "change nature" when sold. Such is the case of .MONSTER, formerly a .BRAND, sold to DotXYZ and now marketed as an open generic. Certain players have developed a speciality in buying .BRAND domains unused since creation from major groups. The "lines" dividing the segments therefore continue to shift, proving that this market is alive and well.

The differences in dynamics observed for each of our segments show that the typology used is relevant today. But this remains changeable. Undoubtedly nTLD families will continue to refine in the future, requiring periodic revisions of the classification of these top-level domains in order to keep as close as possible to market realities.

6.3. Performance of new TLD "segments"

	Stocks (thousands)				Create operations (thousands)			Retention	
	2019	2020	Var. abs	Var.	2019	2020	Var.	% M. 2020	% M. 2019
Genéric	24 988	24 317	- 671	- 3%	16 006	13 425	- 16%	44%	41%
Geographic	806	867	+ 61	+ 8%	162	234	+ 45%	79%	87%
Open brands	6 647	6 932	+ 285	+ 4%	5 765	3 519	- 39%	51%	85%
Community	50	57	+ 7	13 %	3	3	- 4%	(**)	71%
Brands	49	52	+ 3	+ 6%	10	20 (*)	+ 97%	65%	88%
TOTAL	**32 539**	**32 224**	**- 315**	**- 1%**	**21 946**	**17 201**	**- 22 %**	**46 %**	**44 %**

(*) ICANN data restated to eliminate manifest anomalies.
(**) Manifestly abnormal ICANN data (the number of names retained is greater than the stock at the start of the period).

Since the "Community" figures present anomalies, we cannot comment on them. Deducting the create operations reported (3,000) from the year-end stock (57,000) gives us 54,000,

which is 4,000 more than the official stock at the end of 2019. Given the inevitable deletions, estimated at 15,000 (50 x 30% with a constant retention rate of 70%), the real number of create operations must have been around 22,000 (50-15+22 = 57), but we cannot be certain.

It is regrettable that ICANN does not verify the consistency of the data sent to it, and it is all the more surprising in that part of its revenues are calculated on the basis of the number of transactions (create operations, renewals, etc.). In this case, on the rounded basis of 20 cents per create operation, it has potentially "lost" 22,000 - 4,000 = 18,000 x 0.2 = $3,600.

The geographic TLDs posted growth of 8% in stock, corresponding to a 45% increase in create operations combined with an 8% deterioration in their retention rate. It looks as though they benefited from the effects of the acceleration of the digital transition while at the same time losing many names that had perhaps been registered defensively or as part of domaining operations. If this interpretation is correct, their bases are more solid today than they were one year ago.

The Generic TLDs lost 671,000 names, which represents a moderate fall in percentage of their stock. The net balance is essentially linked to the losses of .TOP (-1.6 million names), .VIP (-360,000), .CLUB (-328,000), .SITE (-281,000), .LIVE (-276,000), .GDN (-198,000), .LT (-147,000) offset by the gains of .MONSTER (+107,000), .SHOP (+131,000), .BUZZ (+145,000), .STORE (+182,000), .WANG (+329,000), .ONLINE (+437,000) and .XYZ (+561,000).

This list shows that the variations can be considerable, in both directions, and that in 2020 certain nTLDs linked to e-commerce activities had the wind very much in their sails. Although create operations lost 16%, the retention rate improved by 3 points.

.BRAND domains saw their create operations almost double, but at the same time their retention rate lost 23 points. These changes are so drastic that one is at a loss to know whether they indicate a real trend (rationalisation of portfolios and positioning in new online services) or simply a side-effect induced by erroneous data as in the case of the Community TLDs.

Open .BRAND TLDs include the famous .ICU domain, which explains the apparent collapse of their create operations (-39%), which in reality was above all the collapse of .ICU create operations. However, the 4% growth in their stock was not due to the .ICU domain, which was almost flat in 2020 (-20,000 names), but to the combined effect of positive and negative performances, the most significant of which were those of the .FUN domain (-295,000 names) and the .APP domain (+256,000 names). Since the .ICU domain has continued to crumble in early 2021, the performance of this segment will probably be poor this year.

The table below shows the change in the number of TLDs in each segment over the past five years.

	Number in					Variations (net balance)			
	2016	2017	2018	2019	2020	2017	2018	2019	2020
Community	12	12	12	12	12	-	-	-	-
Geographic	61	63	63	62	62	+ 2	-	- 1	-
Genéric	480	490	500	502	505	+ 10	+ 10	+ 2	+ 3
Brands	593	623	615	592	580	+ 30	- 8	- 23	- 12
Open brands	9	9	9	9	9	-	-	-	-
TOTAL	**1 155**	**1 197**	**1 199**	**1 177**	**1 168**	**42**	**2**	**- 22**	**- 9**

Number of nTLDs with at least 1 portfolio name as at 31/12 of each year.

After 2014-2016, which saw the creation and activation of most of the nTLDs (+465, +352 and +313), 2017 and 2018 were marked by the first delete operations, essentially of .BRAND domains abandoned by their owners. This phenomenon continued in 2020, with the loss of 12 .BRAND domains.

Since this segment follows specific dynamics of its own, it is impossible to deduce from these delete operations that they were necessarily the result of commercial failures. They are more likely to reflect reorientations in the digital strategies of the groups concerned, changes of flagship brands making the .BRAND domains concerned obsolete, or simply defensive create operations from the outset, which their delegatees are unwilling to continue to pay for since they are at a loss as to what use to make of them.

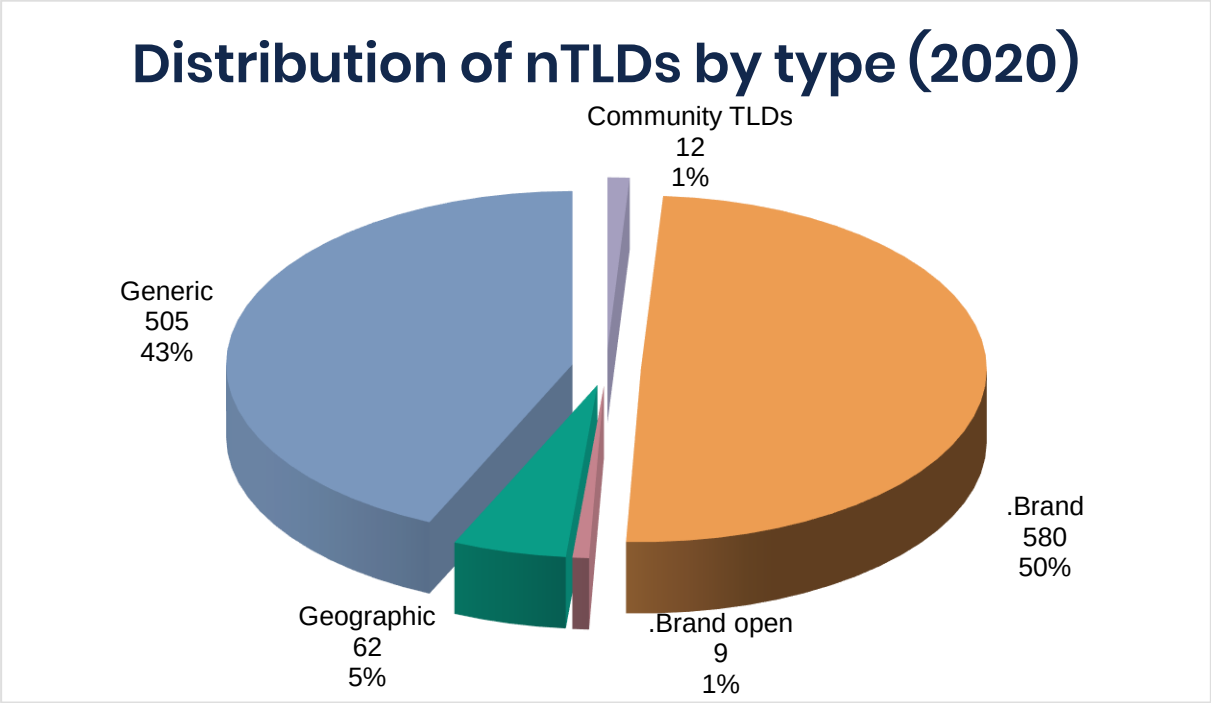
The three new generic domains might be .BRAND domains converted back into generic ones or simply TLDs that had no names in portfolio at year-end 2019 but at least one at year-end 2020.

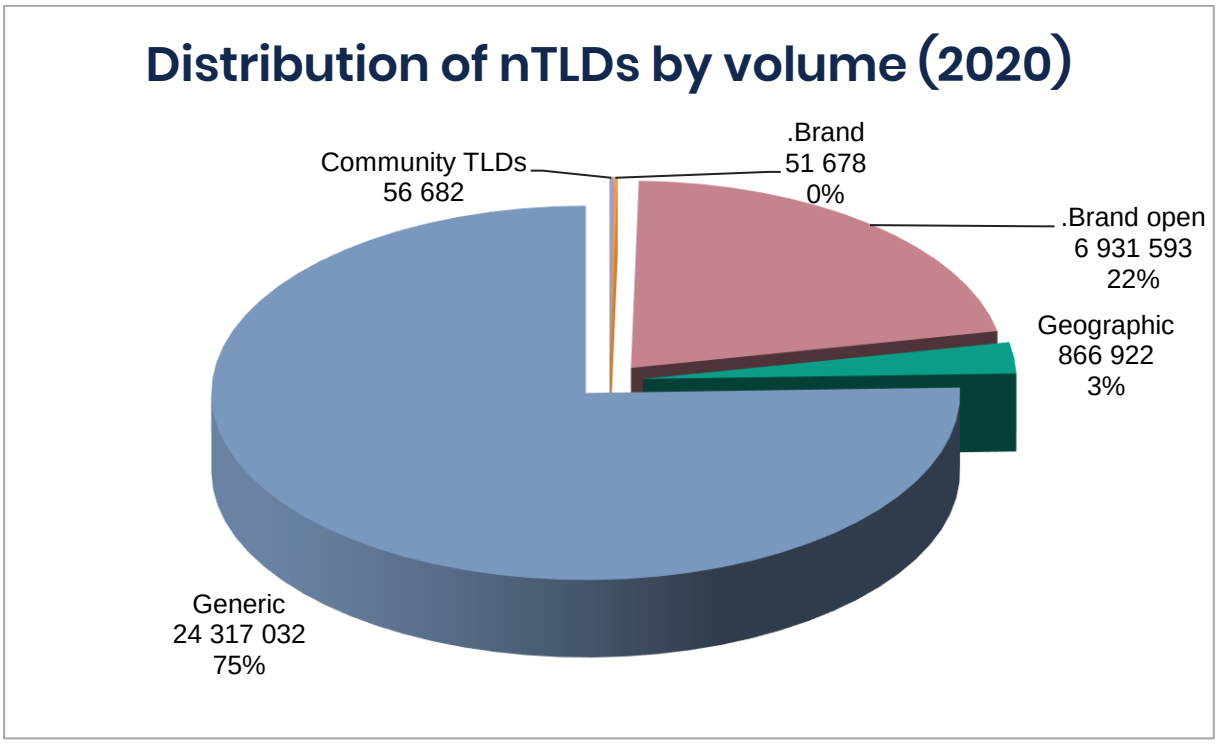
The trend in conversions from .BRAND to generic TLDs is likely to continue, for two reasons:

- on the one hand, the proportion of .BRAND domains still not used is fairly large, which offers prospects of acquisition/reconversion for a certain number, while others will be simply abandoned. The first few months of 2020 have already seen several such cases;
- and on the other hand, a significant percentage of generic TLDs have stocks of insufficient volume to ensure the economic viability of their registries. It would not be surprising to see many of them change hands, while those that find no buyer will be abandoned and deleted.

6.4. Distribution of new TLDs in volumes of domain name registrations

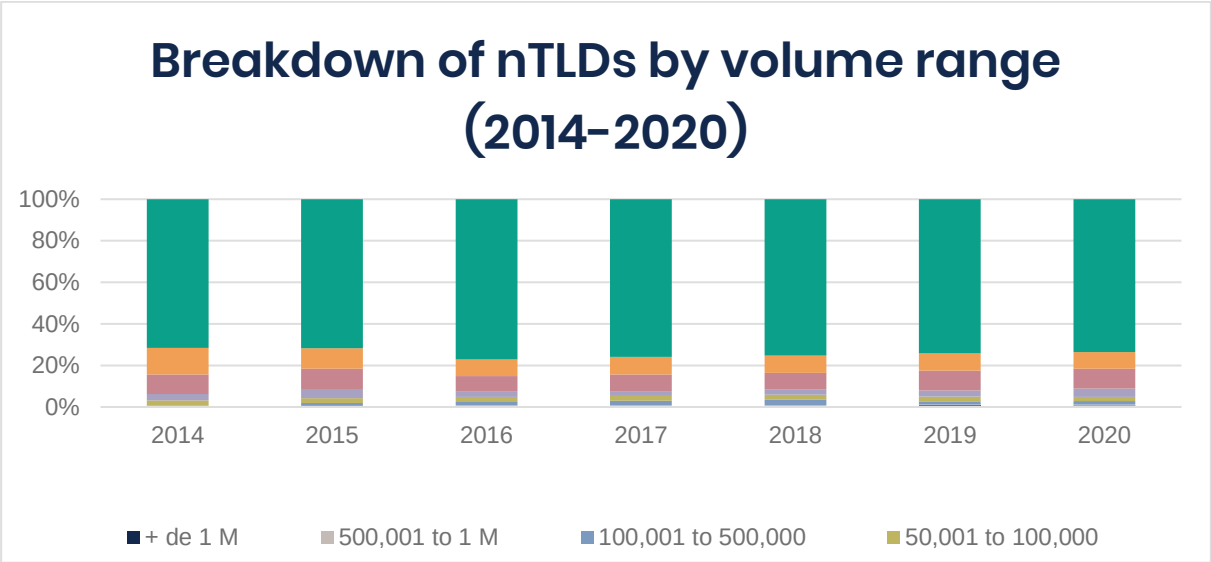
The distribution in volume of domain name registrations does not reflect the number of TLDs in each segment, as shown in the two figures below. With 505 TLDs (43% of the total), generic TLDs represent 75% of domain name registrations; .BRAND domains represent only a marginal percentage of names registered with 580 TLDs (50% of the total). Conversely, the nine open .BRAND domains account for 22% of the total stock.





These two diagrams sufficiently illustrate the variety of business models and strategies of each segment. .BRAND names generally respond to internal needs, while the Community and Geographic nTLDs target customers meeting membership or location criteria. Finally, generic TLDs can develop global ambitions as well as focusing on niche markets, depending on the potential represented by their terms. “Open” .BRAND names for their part present characteristics in terms of volumes very similar to those of the generics, even though they have eligibility conditions attached to them.

The graph below shows the breakdown of nTLDs by volume range. We can see that the “Fewer than 5,000 names” bracket represents over 70% of the total, while the “More than 500,000” bracket represents only 1%, these proportions not having varied appreciably since 2014.



If we take into account ICANN's fees ($25,000 minimum fixed cost) and the various costs related to the management of a TLD (staff, back-end operator, promotion, etc.) and we deduct a minimum average budget of $100,000 a year, it can be seen that the break-even point for a TLD marketing its domain names at around $20 is 5,000 names (10,000 for a $10 fee close to that of .COM). It is therefore essential to analyse the distribution of nTLDs by type and by volume bracket in order to evaluate the health of this segment.

Volumes	COMM	GEO	GEN	OBR	BR	Total	%	2019
1 million or more	-	-	7	1	-	**8**	**1%**	*1%*
500,001 to 1 million	-	-	4	1	-	**5**	**0%**	*0%*
100,001 to 500,000	-	1	17	3	-	**21**	**2%**	*2%*
50,001 to 100,000	-	2	18	3	-	**23**	**2%**	*2%*
25,001 to 50,000	1	4	41	-	-	**46**	**4%**	*3%*
10,001 to 25,000	-	18	94	1	-	**113**	**10%**	*9%*
5,001 to 10,000	-	12	79	-	2	**93**	**8%**	*8%*
5,000 or fewer	11	25	245	-	578	**859**	**74%**	*74%*
TOTAL	**12**	**62**	**505**	**9**	**580**	**1168**		
% < 10,000 names	**92%**	**60%**	**64%**	**0%**	**100%**	**82%**		
% < 2019 reminder	*92%*	*60%*	*66%*	*0%*	*100%*	*83%*		

Breakdown of nTLDs by type and by volume brackets at 31 December 2020
(nTLDs having at least 1 name in stock)

Excluding .BRAND domains, which follow very different forms of logic and objectives, we obtain 281 TLDs with fewer than 5,000 names (or 48% of TLDs excluding .BRAND compared with 49% in 2019 and 50% in 2018) and 372 TLDs with fewer than 10,000 names (63% of TLDs excluding .BRAND, compared with 65% in 2019 and 66% in 2018).

The situation has therefore improved over time, but more than 60% of nTLDs excluding .BRAND remain financially fragile. This is what lies behind the move towards concentration, particularly marked in late 2020 and early 2021 with the successive acquisitions of Afilias by Donuts and of Donuts by Ethos Capital. On the one hand the smaller registries are finding it difficult to make ends meet. And on the other, holders of large portfolios of nTLDs can make use of economies of scale to significantly bring down operating costs, the key to survival.

The pressure on costs (ICANN and others) will continue to intensify as time goes by. Registries are placed in a particularly uncomfortable situation, because they cannot develop their TLDs without the requisite means, but these expenses may strangle them quite quickly in case of failure of promotional campaigns.

Some have engaged in recent years in low-cost strategies that translate into exceptional volumes for such "young" top-level domains. But "selling" a million domain names for one cent each really only generates $10,000, which is one-tenth of the annual budget we took as a working hypothesis, or the equivalent of 1,000 names sold for $10 each.

High volumes can therefore be indicators of success, but also the reflection of particularly cavalier strategies based on the assumption that holders attracted by very low prices at the time of creation will agree to renew their names at more "normal" prices in the following

years. The case of .LOAN, with its 1% renewal rate in 2019 is an almost ludicrous illustration of this phenomenon and of a misplaced bet.

These elements should encourage ICANN to rethink its pricing policy with regard to registries of new TLDs, especially with regard to a second round. For most open nTLDs, its fixed fees of $25,000 constitute too heavy a burden, which prevents them from developing and sometimes even causes them to suffocate by thus forming a barrier to entry which benefits incumbents.

6.5. Change in retention rates[1] per segment

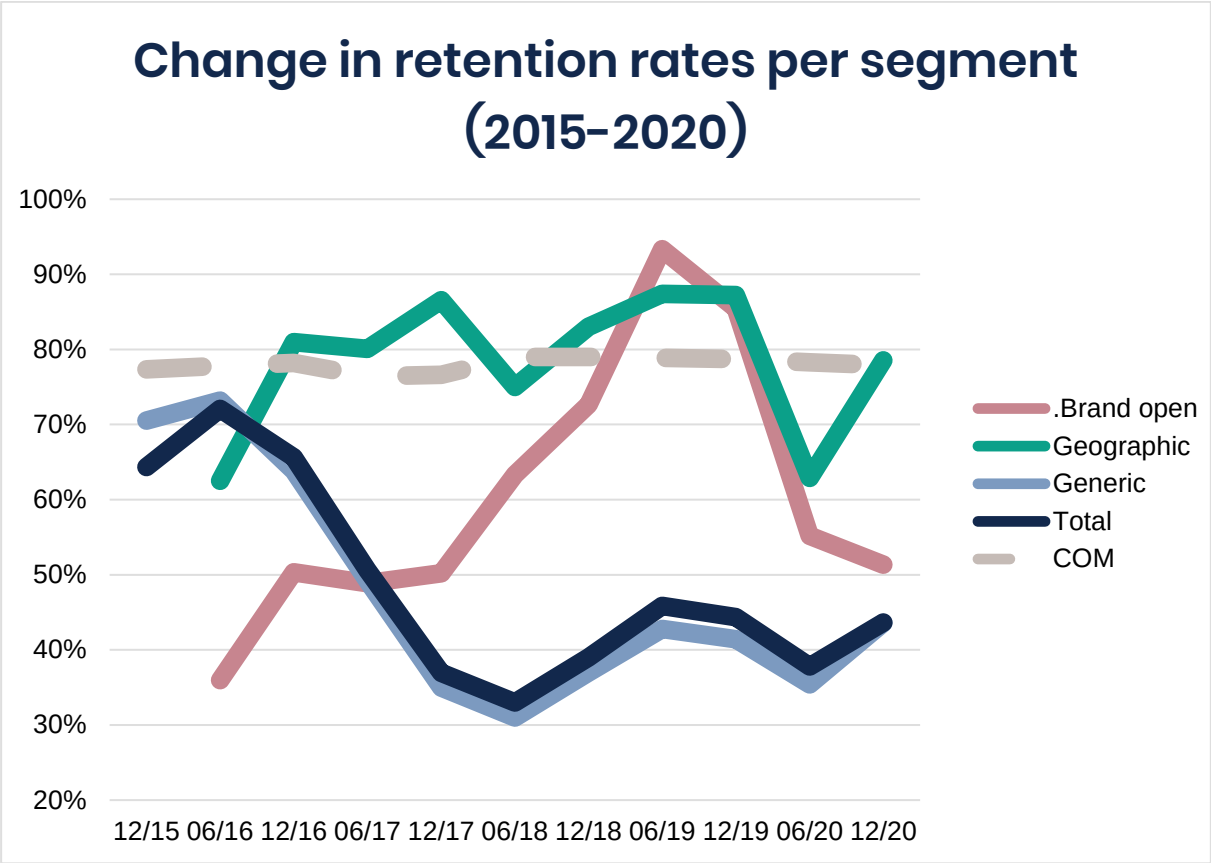
Retention rates are a key element for analysing the success of a TLD and its chances of lasting, the more so as a growing number of nTLDs rely on this parameter more than on their create operations to ensure their survival.

Unsurprisingly, we see that the Generic TLDs have the lowest rate, albeit rising (from 40% in 2019 to 44% in 2020). But this rate is only an average.

The retention rate of the open .BRAND TLDs deteriorated sharply in 2020 (from 87% in 2019 to 50%) due to the expiry of names registered in previous years (the .ICU domain was not the only one to see waves of filings).

After a very difficult first half-year, in which the retention rate fell to 63%, the Geographic domains recovered in the latter part of the year, but remained below 2019 levels.

[1] We distinguish between the Retention Rate, which includes all the names "kept" from one year to the next, and the Renewal Rate, which takes into account only "renewed" names. For example, a name registered for five years will be "retained" for five consecutive years and "renewed" once, upon expiry.



(The .COM rate is added as a comparison.)

The various nTLD segments therefore present strongly contrasting dynamics. In contrast with the perhaps excessive dynamic of the Generic and open .BRAND domains, create operations in the other segments were somewhat lacklustre, but with generally higher retention rates.

But does the pattern observed for certain Generic TLDs – strong creations with rather low retention rates, reflected in the overall rate of this segment – accurately reflect the situation of the generic nTLDs as a whole?

6.6. The "penny-nTLD" phenomena

We saw in the chapter dedicated to ccTLDs that a small number of them can be classified as "Penny TLDs", their registries having adopted original development strategies based on free or nearly-free distribution of their domain names.

This phenomenon also exists in the nTLDs, and for 2020 we have repeated the study carried out for 2019 to try to isolate those of the nTLDs that best match this profile. The objective is to continue to quantify the phenomenon, but also to see whether the composition of this category is stable over time or whether it varies from one year to the next.

The characteristics of these TLDs are well known: after one year, the high volumes of creations resulting from low or symbolic prices translate into high volumes of deletions, either because renewal charges are much higher than creation charges or because holders who registered large numbers of "almost-free" names have not achieved their goals (sales or monetisation of traffic) and let them lapse when they expire.

How to identify them among the nTLDs?

The methodology used consists in selecting the generic nTLDs with at least three years of activity at 31 December 2020 (launched before 31 December 2017 and still in existence at 31 December 2020) so as to avoid as far as possible the "side effects" associated with the opening phases, which usually see high creation rates[2] combined with rather low retention rates[3] in the following year. This approach excludes, for example, the .ICU domain, which saw very large volumes of creations in 2019 for which the retention rate in 2020/2021 is unknown but thought likely to be very low. It also excludes .BRAND domains, which follow specific dynamics.

In order not to have data biased by TLDs with only a few names in stock and with no commercial activity, we have also eliminated from our sample group all TLDs whose stock was fewer than 200 names at 31 December 2017. Some of them have since seen successful launches, but still too recent to be able to be taken into account without the risk of distorting the results.

The usual life cycle of a TLD sees its creation rate decrease as stock increases and the retention rate increase in line with how long ago the names were registered. These values will stabilise after a certain time if no isolated incidents (promotional campaigns, waves of "domaining", etc.) occur to disrupt them.

The pertinent thresholds for classifying the situation of a TLD were defined by the quantitative analysis carried out in 2019 of all the nTLDs meeting our criteria. We have retained them in 2020 so as to allow comparisons over time.

6.6.1. Retention rate

The analysis of retention rates of nTLDs in our sample allows us to obtain the following table. This grid can allow registries to compare themselves with TLDs of the same type, while

[2] Creation rate: total number of create operations over the last 12 months/stock
[3] Retention rate: (Stock - creations over the last 12 months) / Stock 12 months earlier

positioning their category of nTLD relative to the whole. Thus, 73% of Geographic TLDs have a retention rate of 76% or more, as against just 43% for Generic TLDs (and this taking account only of the TLDs themselves, not of the volume of domain names registered in each of them).

Rate brackets	% COMM	% Geo	% GEN	% OBR	Total	%	% 2019
86% and over	1	27	50	-	**78**	**16%**	11%
76% to 85 %	5	11	132	-	**148**	**31%**	32%
66% to 75 %	-	7	150	2	**159**	**33%**	3 %
51%to 65 %	-	4	50	-	**54**	**11%**	13%
50% or less	-	3	40	1	**44**	**9%**	11%
	6	**52**	**422**	**3**	**483**		

Breakdown of generic TLDs (Legacy and nTLDs) by Retention Rate
nTLDs excluding .BRAND that had more than 200 names in stock at 31 December 2017

The overall improvement in retention rates is reflected in the weights of the various rate brackets: 47% of nTLDs had retention rates of between 76% and 100% in 2020, as against 43% in 2019.

The thresholds are consistent with what we have observed with ccTLDs. For example, the retention rate for the .FR TLD, which is an old TLD, well established in its market, is between 81% and 83%, varying from time to time.

Above the 86% threshold we find TLDs with a high proportion of used and/or defensive names that are renewed on a regular basis and registries whose policies are not to delete anything.

The TLDs within the 76% to 85% bracket are well established within their respective fields of activity, with high usage and holder "loyalty" rates.

Between 66% and 75%, TLDs tend to struggle to stabilise their holder base, but this stage often simply represents the transition to the next category above.

The same observation can be made, a little more severely, for TLDs in the 51% to 65% bracket. This situation is generally the result of dynamic marketing strategies focusing on new creations to the detriment of building loyalty (among ccTLDs, the .PL (Poland) domain is a case in point).

Finally, below the 50% renewal threshold, we find a small proportion of TLDs that may either be experiencing major setbacks by simply losing customers or have implemented very aggressive marketing strategies that have ultimately resulted in significant deletions.

Our “penny nTLDs” are among the 44 TLDs of this last category.

6.6.2. Creation rate

In the grid below, the most dynamic TLDs have a high creation rate, while the TLDs attracting the fewest new creations have a low creation rate. The creation rate measures the inflow of new domain names to the stock. This rate is 100% at the time a TLD is created and 0% if it has registered no names in the past year.

Rate brackets	% COMM	% Geo	% GEN	% OBR	Total	%	% 2019
51% and more	-	1	50	1	**52**	**11%**	9%
36% to 50%	-	2	104	1	**107**	**22%**	16%
26% to 35	-	2	121	1	**124**	**25%**	26%
16% to 25%	5	24	84	-	**113**	**24%**	28%
15% or less	1	23	63	-	**87**	**18%**	22%
TOTAL	**6**	**52**	**422**	**3**	**483**		

Breakdown of generic TLDs (Legacy and nTLDs) by Creation Rate
nTLDs excluding .BRAND that had more than 200 names in stock at 31 December 2017

The “normal” (cruising speed) value can be considered to fall within the 16% to 25% bracket, with the 15% and under category concerning TLDs that are at risk of suffocation due to a lack of sufficient demand.

Creation rates of over 51%, however, mean that more than 1 name in 2 has been registered over the course of the past 12 months in a given portfolio and at a given date. This rate is typical of a classic scenario in the two years following a market launch and is highly indicative of aggressive promotional strategies if sustained for over 3 years. The other two categories (26% to 35% and 36% to 50%) contain TLDs that have conducted successful and/or sufficiently recent marketing campaigns to have a significant proportion of newly created names in their portfolio.

Our “penny-nTLDs” are therefore among the 52 domains with a creation rate of over 51%.

6.6.3. Identification of "penny – nTLDs”, 2020

Low-cost TLDs are among those with a very high creation rate (51% and over) combined with a very low retention rate (50% and under). The table hereunder shows the distribution of the

nTLDs studied by brackets of creation and retention rates, all segments together (except .BRAND).

R rate / Cr. Rate	15% and less-	16-25%	26-35%	36-50%	51%and +	Total	%
86% and more	**47**	20	4	2	5	**78**	**16%**
76%to 85 %	30	**47**	46	22	3	**148**	**31%**
66% to 75 %	6	36	**58**	46	13	**159**	**33%**
51% to 65 %	1	5	14	**24**	10	**54**	**11%**
50% or less	3	5	2	13	**21**	**44**	**9%**
TOTAL	**87**	**113**	**124**	**107**	**52**	**483**	
%	**22%**	**28%**	**26%**	**16%**	**9%**		

Breakdown of generic TLDs (Legacy and nTLDs) by Creation Rate
nTLDs excluding .BRAND that had more than 200 names in stock at 31 December 2017
X-axis: Creation Rate; Y-axis: Retention Rate

This breakdown shows that irrespective of the aspects linked to the profitability threshold, the proportion of TLDs in a truly critical situation is quite small.

We may consider a situation critical when the Creation Rate is 15% or less and the Retention Rate is 50% or less. Only three TLDs meet this dual requirement (as against seven in 2019), fewer than 1% of the total.

We also see an interesting visual phenomenon, already observed in 2019: for each bracket of Retention Rates there is a "favoured" Creation Rate, and vice versa (the highest number of each line or column, respectively, in bold). These intersections form a diagonal which highlights the strong correlation between the Creation and Retention rates. It seems that there is a "normal" profile corresponding to each strategy and that nTLDs decrease in number as they move away from this profile. This grid can allow registries to evaluate their performances and situation compared with their plans or expectations.

Above this diagonal line, the TLD is outperforming on one or other of the criteria, or both; below it, it is underperforming. A registry can thus assess the effectiveness of its strategy depending on the internal causes leading to these results. By crossing this matrix with those detailing the breakdowns by type of TLD (Geos, Generics, etc.), it is possible to form a fairly accurate idea of a domain's strategic position.

In 2020, circumstances turbocharged creation rates to such an extent that nTLDs did not have time to change categories of retention rates in view of the usual one-year lag between variations in create operations and variations in deletions. This creates categories that are "at risk" as they are unstable: the 46 nTLDs with creation rates between 26% and 35% and retention rates of between 76% and 85%, and the 46 others with creation rates of 36% to 50%

and retention rates of 66% to 75%, should in theory return to the "diagonal" in 2021, probably as a result of the dual effect of a decline in their creation and retention rates.

What are the volumes of names concerned by each category?

The following table is exactly the same as the previous one except that it expresses the nTLDs in volumes of names registered (thousands):

R. rate / Cr. rate	15% and less	16-25%	26-35%	36-50%	51% and +	Total	%	% 2019
86% and more	**385**	132	1 381	15	221	**2 134**	**8%**	**2%**
76% to 85%	258	**422**	462	402	169	**1 713**	**7%**	**6%**
66% to 75%	13	314	**984**	949	282	**2 542**	**10%**	**17%**
51%to 65%	5	23	428	**922**	1 167	**2 545**	**10%**	**10%**
50% and less	61	9	51	1 323	**14 998**	**16 442**	**65%**	**65%**
TOTAL	**722**	**900**	**3 306**	**3 611**	**16 837**	**25 376**		
%	**3%**	**4%**	**13%**	**14%**	**66%**			
% 2019	**5%**	**6%**	**7%**	**9%**	**74%**			

Breakdown of generic TLDs (Legacy and nTLDs) by Creation Rate
nTLDs excluding .BRAND that had more than 200 names in stock at 31 December 2017
X-axis: Creation Rate; Y-axis: Retention Rate

The total number of names shown as registered here is 25 million, compared with a grand total of 32.2 million nTLDs. The difference is due to the nTLDs omitted because they were .BRAND and/or they had less than three years' activity. Of this 7.2 million difference, the .ICU domain alone accounts for 4.9 million.

Logically enough we again find the diagonal line described above. The volume of domain names in critical situations from a strategic point of view represents just 0.2% of the total number studied. As for the two categories mentioned above as being likely to see an adjustment in 2021, they concern approximately 1.4 million names, i.e. 5% of the total.

Unsurprisingly, the "Penny TLD" category is the one with the biggest number of names: 15 million, i.e. 60% of the names registered under the nTLDs selected, and 48% of all the names registered under nTLDs.

This implies that around 25% (48% x 50% retention rate) of the names registered in nTLDs are likely to disappear next year, without even taking account of the domain names of TLDs that

have experienced strong creations and therefore risk seeing heavy deletions in the coming months.

This simple calculation highlights one of the reasons behind the persistent volatility of nTLDs, which can vary by several million in either direction in the space of just a few months. These significant variations are determined by just a handful of TLDs, which our study has allowed us to isolate.

Outwardly, the number of nTLDs that can be classed as "penny-TLDs" changes little – 21 in 2020 compared with 20 in 2019. But they are not the same TLDs.

BUSINESS	LIVE	SITE	WEBSITE
CLUB	ONLINE	SPACE	WEDDING
GDN	OOO	STORE	WORK
HOST	PRESS	TECH	XYZ
KIM	SHOP	TOP	xn--3bst00m .集团

List of nTLDs that may be considered as "Penny TLDs" in 2019

ACCOUNTANT	INK	ONLINE	TOKYO	WORLD
BID	KIM	PRESS	UNO	
CASA	LIFE	RECIPES	VIP	
DEGREE	LINK	RED	VOTING	
FEEDBACK	LTDA	STORE	WEDDING	

List of nTLDs that may be considered as "Penny TLDs" in 2020

A comparison of the two lists shows that it is impossible to classify an nTLD definitively as a "penny-TLD", and that the category is intrinsically highly volatile. Of the 20 nTLDs in this category in 2019, only 5 (20%) were still in it in 2020: .KIM, .ONLINE, .PRESS, .STORE, and .WEDDING. Conversely, of the 21 in 2020, 16 (76%) are newcomers.

This ranking is clearly not static as it evolves according to the strategies adopted by the players concerned and the natural constraints imposed by both the market and the life cycle of the domain names.

This being the case, a growing TLD will automatically find it increasingly difficult to maintain a high creation rate. Likewise, an increasing retention rate for a TLD that is achieving zero

growth or even in decline can only reflect the fact that there are very few new creations and that the stock is based increasingly on names that have been used and/or defensively registered in the past, which is not necessarily a good sign. It all revolves around balance and the context in which the TLD is operated.

The main issue for new registries is often that of the volume of names managed, which, where third parties (and indeed investors!) are concerned, is indicative of a domain's success. After a few years, however, these same registries realise that the true key to success is the profitability of their activity. The change in strategy can prove to be a sensitive matter, in terms of both accounts and relations with registrars. To paraphrase an ironic critique of the effects of the austerity policies advocated by the IMF, it is better for a TLD to have fewer but profitable names than to have the prospect of dying rich.

It is for this reason that we considered it useful to maintain in this 2020 edition a few reflections on the business models of the nTLDs, for the attention of both current registries and those envisaging applying in future ICANN rounds.

6.7. Reflections on the business models of the nTLDs

There is a degree of confusion surrounding talk of the "new TLDs". Some commentators sound an optimistic note, while others churn out only bad news. How can we know who is right? The objective of this section is to lay the bases for a reflection on the dynamics and constraints inherent in each business model, and to put forward a few keys to understanding that seem to us pertinent at the present time.

A secondary objective is to show that the key success factors of these different types of TLDs – factors likely to ensure their long-term survival – are not entirely based on volume, at least for some of them. It is only for the "merchant" nTLDs, whose durability relies on selling domain names to third parties, that the notion of volume has any real meaning. The success of a TLD in fact depends more on its ability to unlock value for its registry and the target online community, and the way this value is measured differs from one segment to another.

On the other hand, the costs are the same for all registries, and this burning topic cannot be ignored, since it is far from being neutral: on top of the back-end operator's charges, the US$25,000 a year demanded by ICANN (for nTLDs with fewer than 50,000 names in stock) represents a rather heavy burden.

As already mentioned above, for a commercial TLD with 5,000 names in stock, these ICANN fees are equivalent to a $5 fixed cost per domain name. If we add the back-end operator's charges, these internal operating costs and the promotional and development expenses, we see straight away that such registries are forced to charge high, relatively uncompetitive

rates compared with those of major competitors already solidly entrenched in the market, enjoying the double advantage of volume and user acceptance.

6.7.1. Unequal business models

Not all new TLDs are equal as regards business models. Let us consider each of the major segments or "families" existing at present.

- **.BRAND TLDs** are created by major groups for their own use. Their benefits are expressed in terms of contribution to their owners' digital strategies. Expected volumes are low and the cost per domain name is therefore high, albeit compensated for by the added value created for the business. Use is internal so the notion of "tariff" does not apply, and profitability has to be addressed in the context of a major group. While substantial for a start-up business, the budget needed to obtain a domain and make it work is fairly modest relative to the investments made to establish and develop the online presence of a major group and its components, not to mention the budgets linked to communication.

- **"Open" .BRAND names** are .BRAND names that can be registered by third parties subject to certain conditions. So far cases are few and far between so we do not have the necessary perspective to be able to assess the dynamics of this segment. For the moment, the salient point is that most of these TLDs attract significant, and in some cases very significant volumes, which means they resemble generic TLDs more than .BRANDs.

- **"Community" TLDs** are reserved to targeted communities, which by their very nature are fairly limited. Expected volumes are therefore rather low, sometimes reaching "average" for large communities or if the TLD is universally acclaimed. In order to balance their accounts, these TLDs are forced to sell their domain names at high prices, but which can become moderate if successful.

- **"Geo" TLDs** correspond to names of regions or cities. Their catchment areas are often greater than those of Communities, while targeting relatively small audiences. Their problem is very similar to that of the Community TLDS, although less severe. Their spectrum is broader, ranging from a few thousand domain names to several hundreds of thousands in the long run. But initially and for several years, volumes remain low or average and prices must be aligned accordingly, from high to moderate. However, volume-specific prices allow these players to expect a quick return on their investments, with renewal rates generally high and create operations growing as the reputation of the TLDs increases.

The last segment, that of the "pure generics", is split into two:

- **generic domains** that can only reach a small customer base, either because of their eligibility rules or because of a key term that can only interest restricted audiences and niche markets. The financial logic of these nTLDs is close to that of geoTLDs and Community TLDs, the expected volumes being low or average and the tariffs consequently high or moderate. There is so far no example of these domains having acquired a sufficient volume to arrive at moderate tariffs while assuring their profitability, but this will probably come about in the future.

- **“open” generics**, in terms used worldwide, which are lucky enough to address a global target or at least one that is very broad. These TLDs can afford to forget about approaches targeting niche markets at relatively high prices and adopt mass sales and low-cost strategies. The wager is all the more risky in that the TLDs are still new, which is no doubt also why they are the only ones to envisage it. Here volumes can range from “Weak” to “Strong” and tariffs from “Low” to “High” depending on registries’ choices and success rates.

	Envisaged tariff levels			
Expected volume	**N. A.**	**Low**	**Moderate**	**High**
Strong	-	[GEO] GEN-broad Open .BRAND	-	-
Average	-	-	GEO [COMMUNITY] [GEN – limited] GEN – broad Open . BRAND	-
Low	.BRAND	-	-	COMMUNITY GEO GEN – limited GEN – broad Open .BRAND

Square brackets [ ] indicate situations that are atypical or unlikely to be encountered at present.

This succinct modelling of the balances between expected volumes and tariff levels allows us to explore the consequences for registries in terms of marketing strategies.

6.7.2. The consequences in terms of marketing strategies

Due to the particularities of each, the nTLDs are not evenly matched and have to develop marketing strategies to suit their strengths and weaknesses.

The lower the expected volumes, with high tariffs, the more the registry is forced to look to the added value of its TLD and/or the sentiments it may be able to arouse among its target audience. .BRAND names will therefore seek added value linked to their digital strategy. COMMUNITY and GEO domains can convey notions of belonging and recognition between their owners and their visitors or prospects. In numerous cases, this will concern "love-TLDs", which owners are prepared to pay more for because they make particular sense in their view, for reasons that are most often sentimental and linked to identity, such as belonging to a city, region or community. Restricted generic TLDs may seek to develop original service models that provide them with the key success factors they may have initially lacked.

Conversely, the "pure generic TLDs" will be able to charge low tariffs, and even wager on TLDs that are virtually free of charge, hoping that the proportion (generally very low) of renewed names will eventually enable them to balance the books. Renewal rates are all the more critical for TLDs that have chosen a virtually free approach for create operations, hoping to make up their losses with renewal rates. So far these innovative models have achieved tangible results in terms of volumes in the short term, but without guaranteeing the long-term sustainability of the TLDs concerned.

6.7.3. Exclusive TLDs versus massTLDs

These are two philosophies that coexist without ever coming together: the successful "love-TLDs" tend to claim to be exclusive or selective, while the "mass-TLDs" in contrast seek the widest range of targets possible.

Both approaches, however, are exposed to miscalculation. Users attracted by a "love-TLD" can be put off by conditions of eligibility that are too drastic, making the TLD cumbersome (checks, etc.) and all the more dissuasive in that their selective nature does not necessarily engender feelings of attachment or any perception of added value. "Mass-TLDs", on the other hand, by their construction, suffer from significant volatility and must maintain high levels of create operations if they do not want to see their stocks collapse. This strategy can end up looking like a Ponzi operation if it escapes the control of the registry.

The logical result is that, since 2018, we have been witnessing the changes expected among some of the registries, with "love-TLDs" disappointed by the volumes seeking to ease their eligibility conditions, and some "mass-TLDs", after having their fingers burnt by their disastrous renewal rates, paradoxically revising their prices upwards.

6.7.4. Bad pricing never pays

This remark is not gratuitous: it should be remembered by future applicants for TLDs in the coming years, when ICANN organises the next rounds.

In a world as competitive as that of domain names, bad pricing can lead a registry to ruin simply because the tariff turns out to be dissuasive (negative effect on volumes) or dilutive (negative effect on the perception of value).

Registrars and users alike are very hostile to rate increases, so it is probably best for a low-to-moderate TLD to start with reasonable rates and allow for the possibility of downward adjustments, as volumes increase.

6.7.5. Right holders and domainers, two false friends

A fairly large number of new top-level domains have built their short-term models on the hope of reaching two particularly promising markets: rights holders and domainers.

Anxious to protect their brands against cybersquatting, rights holders have long been a cash cow in the domain name market. The "sunrise period" which is designed to allow them to protect their names has sometimes even been transformed into something not far short of racketeering, organised by registries more or less created for this purpose. But the rights holders have often been very disappointing. Once they are conscious of the fact that they can no longer eliminate the risk, they increasingly content themselves with managing it and no longer take part in sunrise periods with the same enthusiasm (or the same anxiety) as

before. Similarly, their defensive domain registration strategies have become increasingly parsimonious. The abundance of TLDs has helped kill the golden calf.

The domainers for their part have also been sources of disappointment for some registries. Many refuse to take the risk of investing in TLDs of questionable longevity, or which are so poorly known to the public that the chances of reselling them with a profit are slim. The policy of "premium" names sold by auction or billed more expensively has also sometimes proven fruitless, because domainers cannot afford to invest much in a single name, and the more "natural" holders are not sufficiently aware of the potential returns to accept the level of expenditure required.

6.7.6. Convincing investors

All these considerations are important for applicants wishing to obtain a TLD (and for those who already have one!) vis-à-vis their investors or principals. It is important to understand the situation of each TLD profile in order to adjust the business model and the marketing strategy accordingly, and not to make "false promises" to backers, even in good faith. The first precaution to take is to explain to them that volume alone is not an absolute criterion of success.

6.7.7. "Success" or failure is linked, not to volume but to the pertinence of the strategy with respect to market conditions

Volume is only the tip of the iceberg – certainly the most visible, but perhaps not the most relevant. A TLD that achieves profitability with low volumes but which reaches its targets and wins their loyalty will logically be more sustainable than a TLD with high volumes but which is unprofitable and has to base its development on permanently gaining new customers to compensate for a very low renewal rate.

Even if the domain name market sometimes presents absurd situations, the principle of reality always wins over in the end. The first ICANN round resulted in a proliferation of projects that were sometimes brilliant, but often unrealistic in terms of expectations and disconnect among targets, eligibility conditions, business models and marketing strategies. It is to be hoped that applicants in the next round will do a better job of linking these various parameters so as to give their entrepreneurial venture the best chance of success.

6.8. “Leaders” still fragile

Having looked at the dynamics at work in the nTLD segment, it is interesting to study in more detail the performances of the leaders, since their variations largely determine those of the segment as a whole.

These leaders were of necessity selected on the basis of volume: the reference sample group includes all nTLDs with 500,000 or more domain names in stock at the end of any year since 2014.

These leaders are largely TLDs marketed using aggressive or low-cost marketing strategies, which explains why some of them have collapsed after surpassing 500,000 names. These cases are interesting to follow in order to identify possible strategies for regaining lost ground.

The table below highlights the fact that the 19 TLDs selected alone accounted for 70% of the names registered under the 1,168 nTLDs at year-end 2020 and 72% of the names created during the past year (compared with 83% in 2019, when there was no “.ICU effect” on creations).

The stocks of the two categories, whether in the sample group or not, followed sharply different trends in 2020. Whereas the leaders lost 5% (due in particular to the .TOP domain), the other nTLDs gained 11% in stock. The contrast is even starker for create operations, with changes of -29% and +36% respectively. However, there is a notable difference when we come to retention rates: 40% for the “Leaders”, as against 54% for the nTLDs not in the sample, which seem much more stable.

.

	Stocks (thousands)				Create operations (thousands)			%Retention	
	2019	2020	Var. abs.	Var.	2019	2020	Var.	2019	2020
.ICU	4 923	4 904	- 19	- 0%	*4 608*	*2 695*	*- 42%*	-	45%
.XYZ	2 930	3 481	561	19%	*2 086*	*2 624*	*26%*	36%	29%
.TOP	3 733	2 166	- 1 567	- 42%	*3 043*	*1 240*	*- 59%*	17%	25%
.ONLINE	1 458	1 895	437	30%	*916*	*1 300*	*42%*	47%	41%
.SITE	2 036	1 755	- 281	- 14%	*1 569*	*1 152*	*- 27%*	49%	30%
.WANG	1 046	1 374	328	31%	*952*	*382*	*- 60%*	60%	95%
.CLUB	1 579	1 250	- 329	- 21%	*1 041*	*688*	*- 34%*	32%	36%
.VIP	1 421	1 061	- 360	- 25 %	*847*	*417*	*- 51 %*	67%	45%
.APP	743	1 000	257	35%	*382*	*253*	*- 34%*	100%	100%
.SHOP	690	821	131	19%	*472*	*563*	*19%*	33%	37%
.WORK	677	709	32	5%	*502*	*443*	*- 12%*	33%	39%
.BUZZ	431	576	145	34%	*412*	*325*	*- 21%*	-	58%
.STORE	348	530	182	53%	*245*	*362*	*48%*	-	48 %
.LIVE	730	453	- 277	- 38%	*609*	*291*	*- 52%*	45%	22%
.FUN	586	290	- 291	- 50%	*504*	*190*	*- 62 %*	39%	17%
.LTD	266	119	- 147	- 55%	*45*	*49*	*10%*	35%	26%
.WIN	80	69	- 11	- 14%	*12*	*18*	*47%*	15%	64 %
.BID	28	20	- 8	- 30%	*6*	*6*	*1%*	9%	48%
.LOAN	24	8	- 16	- 66%	*3*	*3*	*17%*	1%	21%
Total Top 500K	23 717	22 480	- 1 237	- 5%	***18 253***	***13 002***	***- 29%***	32%	40%
Others	8 822	9 744	922	11%	***3 694***	***5 021***	***36%***	52%	54%
Total nTLDs	32 539	32 224	315	1%	***21 947***	***18 023***	***- 18%***	39%	44%
% Top 500 K / Total nTLDs	*73%*	*70%*	-		*83%*	*72%*			

Source: ICANN reports
Sample group consisting of nTLDs holding or having held more than 500,000 names in their portfolio as at 31/12 of one year since 2014.
Added to the sample group in 2020: .BUZZ, .STORE

Are the 19 "Leaders" the trees preventing us from seeing the wood? Well, perhaps, but the leaders themselves do not constitute a homogeneous group. As the table shows, averages can be misleading.

The matrix table below highlights the different dynamics found among the TLDs of our sample group.

Two (as opposed to four in 2019) have both creation and retention rates above the average for nTLDs (56% and 44% respectively). Six others show poor creation rates but above-average renewal rates (this applies also to nTLDs not in the sample group). Eight more have good creation rates, no doubt as a result of low-cost operations. Lastly, three are in less enviable situations, albeit perhaps only temporarily so, with below-average indicators in both cases.

	Creation rate < Average nTLDs	**Creation rate > Average nTLDs**
Retention rate > Average nTLDs	.APP .BID .ICU .VIP .WANG .WIN Others (Outside sample)	.BUZZ .STORE
Retention rate < Average nTLDs	.CLUB .LOAN .LTD	.FUN .LIVE .ONLINE .SHOP .SITE .TOP .WORK .XYZ

The nTLD segment therefore still needs to be analysed by putting into proper perspective the impact of the leaders, which are subject to strong fluctuations due to their marketing strategies, just as ccTLDs should be considered without the penny ccTLDs that distort the overall performance characteristics.

The finding revealed by the above tables contradicts the gloom or pessimism that can be seen in certain specialised publications about new TLDs. In reality, this segment is highly concentrated, and its leaders are not representative of all these new entrants, in their periods of exuberance and of depression.

7. The distribution of domain names in the world at year-end 2020

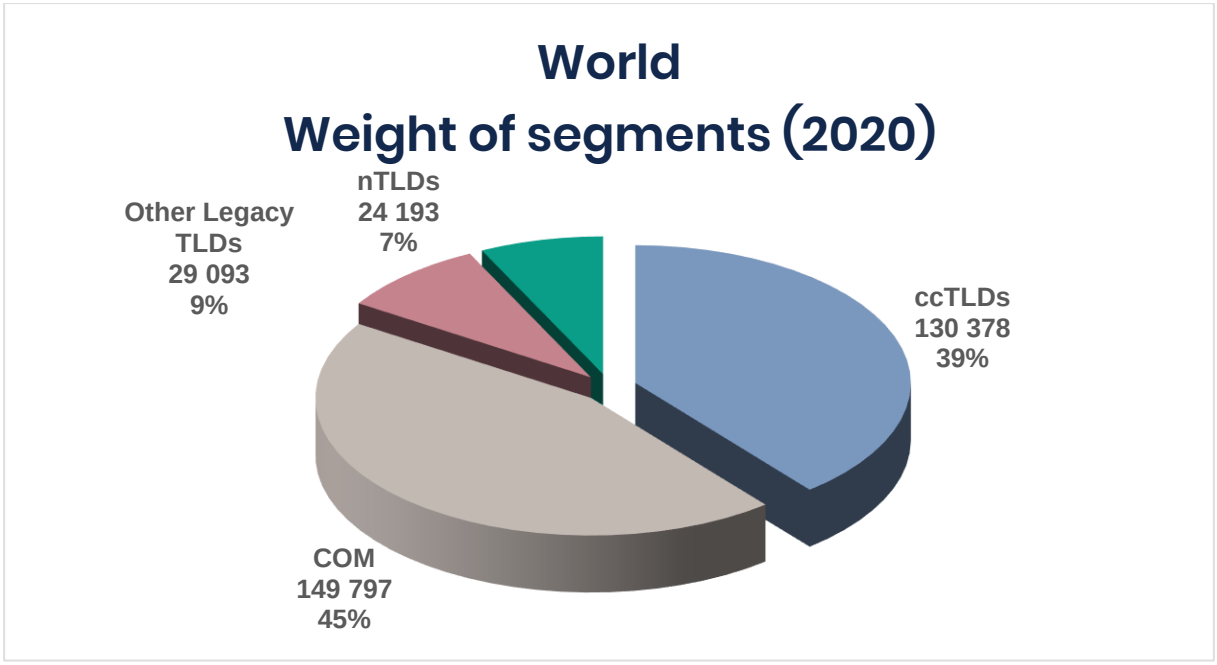
The analysis of the development of the major segments of the domain name market, Legacy TLDs, ccTLDs, and nTLDs, can be completed by studying the distribution of stocks of these same segments in the major regions of the world.[4]

By convention, we have used the ICANN regional nomenclature for reference, even though it can sometimes be open to discussion.

We present here, as we have since 2018, the proportion of each major segment in the various ICANN regions, which seems to us more pertinent than the former for assessing the state of the market and its determinants.

7.1. Overview

In 2020, the .COM domain was still the market leader with a 45% market share (+2 pp), followed by ccTLDs (excluding penny-TLDs) with 39% (-1 pp). The other two segments, Other Legacy TLDs and nTLDs, accounted for 9% and 7% of worldwide registrations respectively (compared with 9% and 8% in 2019).

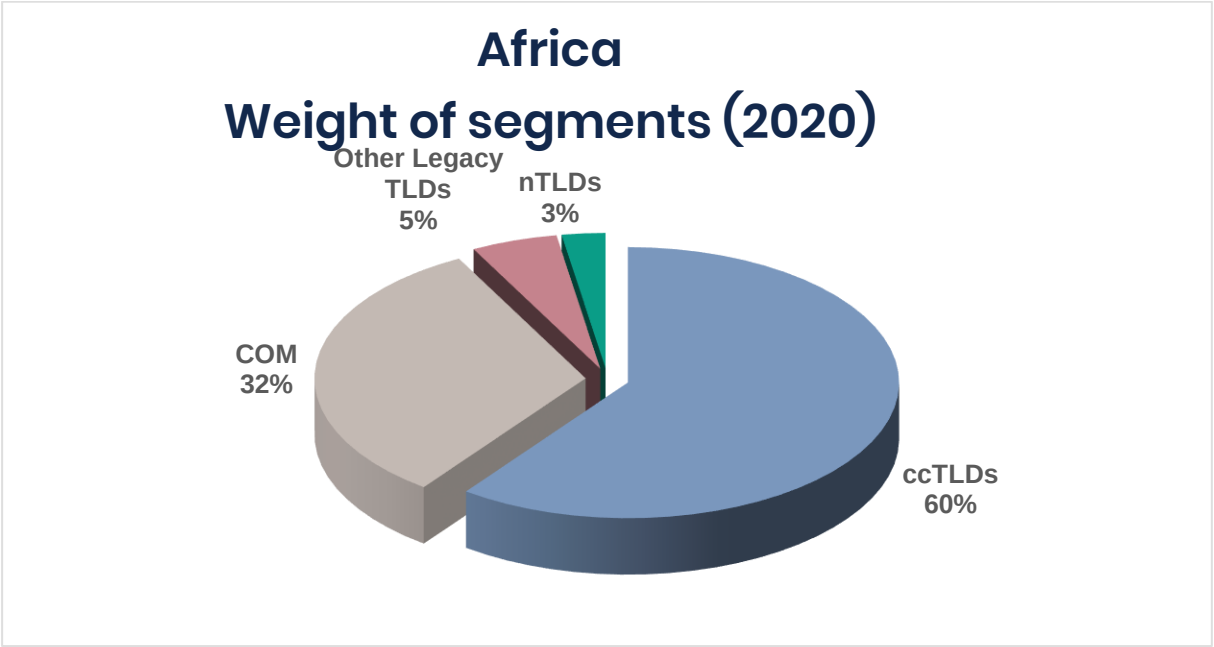


[4] For the .COM domain, Legacy TLDs and nTLDs, the distribution of names by holders' regions has been estimated thanks to data provided by ZookNic.

As we shall see, these global data conceal significant regional disparities, which have not changed appreciably relative to 2019 since they are structural characteristics of the market in each region.

7.2. Weight of segments in Africa

In Africa, local ccTLDs are the leaders, with a 60% market share (compared with 53% in 2019), while the .COM domain comes in second place with 32% (compared with 38% in 2019). Other Legacy TLDs represent 5% (compared with 6% in 2019) and nTLDs remain marginal with 3% (3% in 2019).

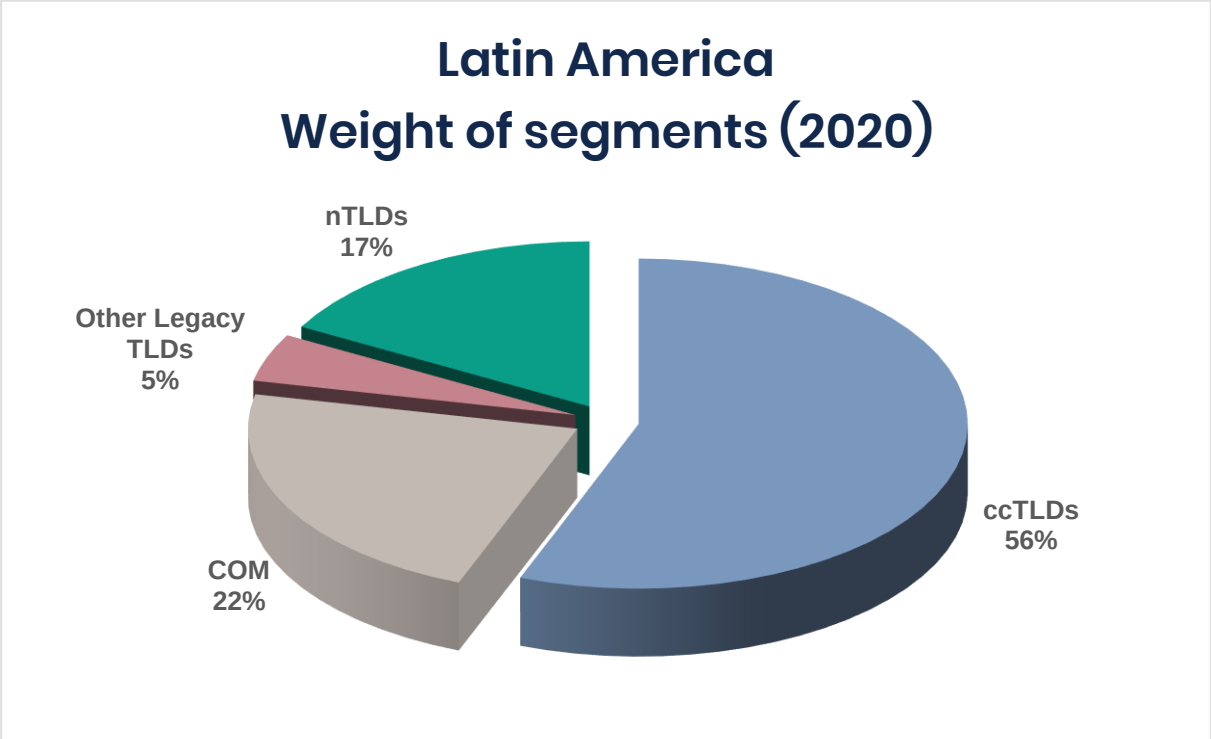


The .COM domain thus suffered particularly in 2020 in Africa, to the benefit of the local ccTLDs. This phenomenon is seen in all regions except North America. It is also related to the relatively flat performance of .COM create operations. But this observation raises more questions than it provides answers: what factors were at play, globally, to lead users to favour their national ccTLDs over the .COM domain? Was it an interruption or a slowing of the marketing campaigns carried out through local registrars that sufficed to penalise the world leader? If this hypothesis were to be proven, we would have to ask to what extent this lead position is due to marketing operations rather than market fundamentals... Is the .COM domain an idol with feet of clay?

7.3. Weight of segments in Latin America

The profile of the Latin American market is similar to that of Africa in terms of market share of ccTLDs (56% in 2019). However, there is a much bigger presence of nTLDs (17% as against 3%), in particular as some major players are domiciled in Panama, from where some important registrars also offer proxy services. At just 22% the .COM domain's market share is relatively small compared with other regions or with its worldwide average.

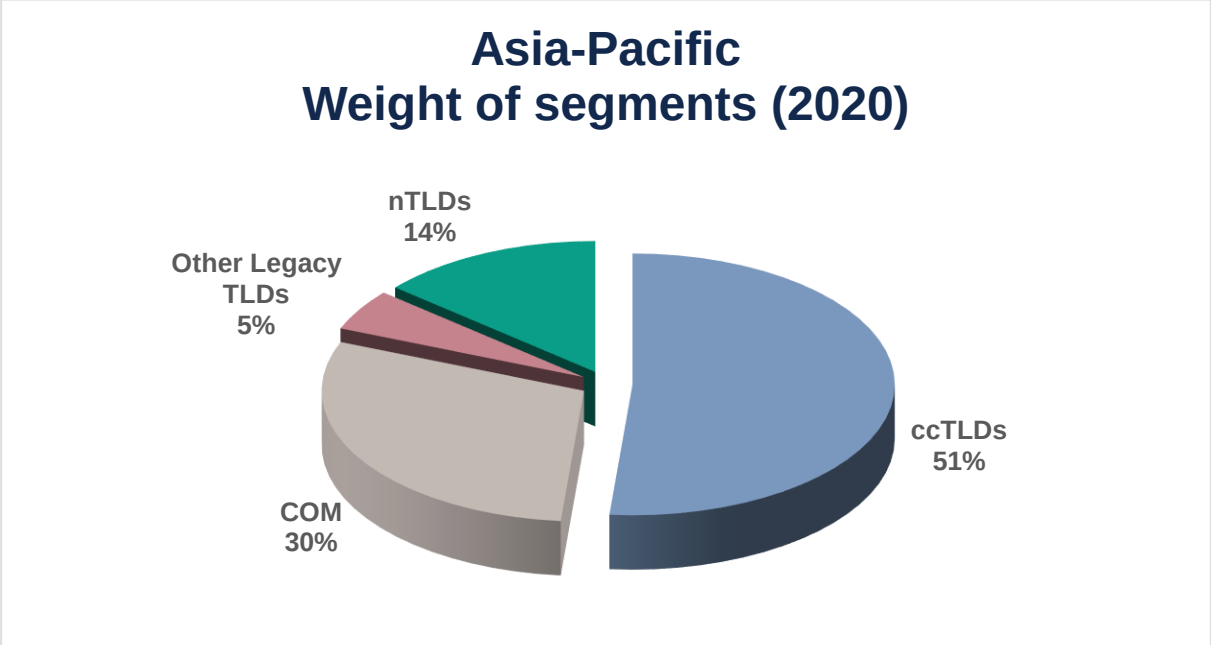
The modest share of "Other Legacy" TLDs (5%), close to their share in Africa, shows that these registries and registrars that introduce a bias are specifically positioned on nTLDs.



In addition to the anomalies linked to nTLDs, the figures suggest that there is a strong preference in Latin America and Africa for local ccTLDs, which also benefits regional economies as opposed to the .COM domain and the Other Legacy TLDs whose profits are taken by registries mostly located in the United States.

7.4. Weight of segments in Asia-Pacific

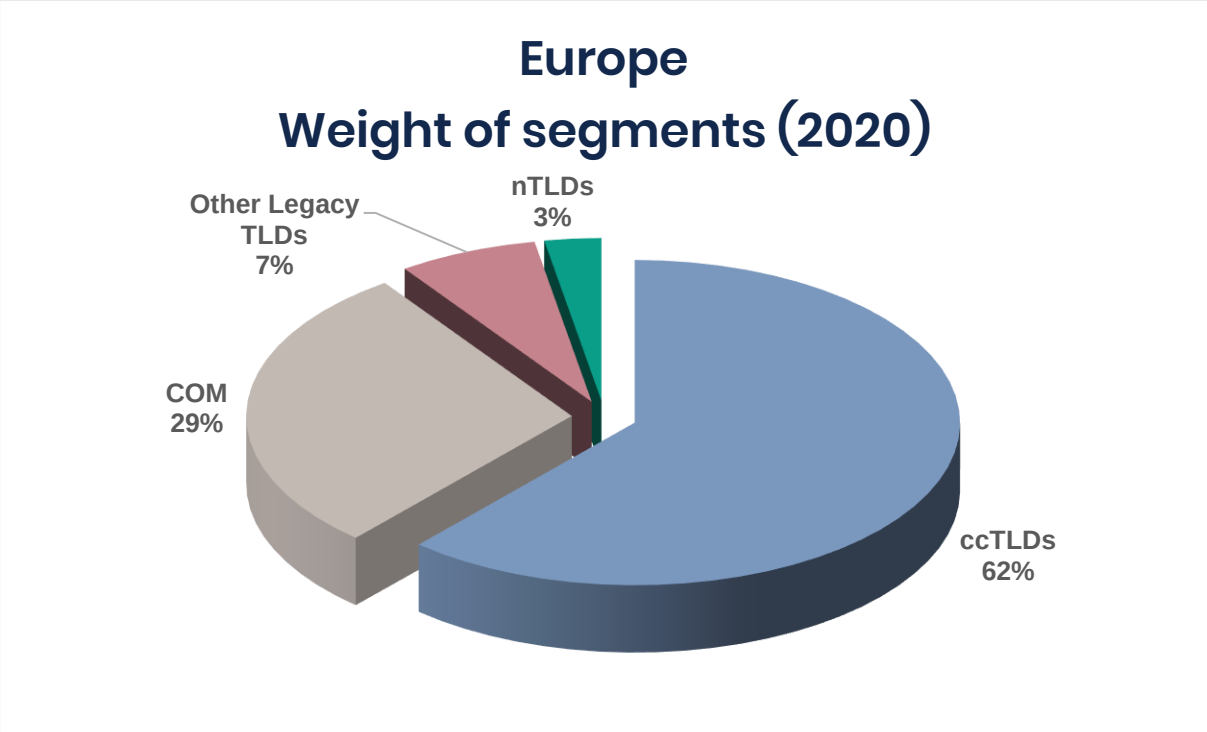
The situation in Asia-Pacific is almost the same as in Africa and Latin America: ccTLDs are the market leaders, but less markedly so (51% market share), followed by .COM names (30% in 2020 as against 27% in 2019), Other Legacy TLDs (5%) and nTLDs (14%, compared with 16% in 2019).



In this region, developments in 2020 broke the long-term trend. The losses of the .CN and .TW domains weakened the ccTLDs, to the benefit of the other segments, particularly the .COM domain. The nTLDs' also losing 2 pp of market share reflects the fact that the purge of .TOP names, and others, mainly concerned names registered by holders located in Asia-Pacific.

7.5. Weight of segments in Europe

It is in Europe that ccTLDs have the biggest share, with 62% (unchanged from 2019). The .COM domain gained a little ground (29% compared with 27% in 2019), while the Other Legacy TLDs held steady. The nTLDs lost one pp.



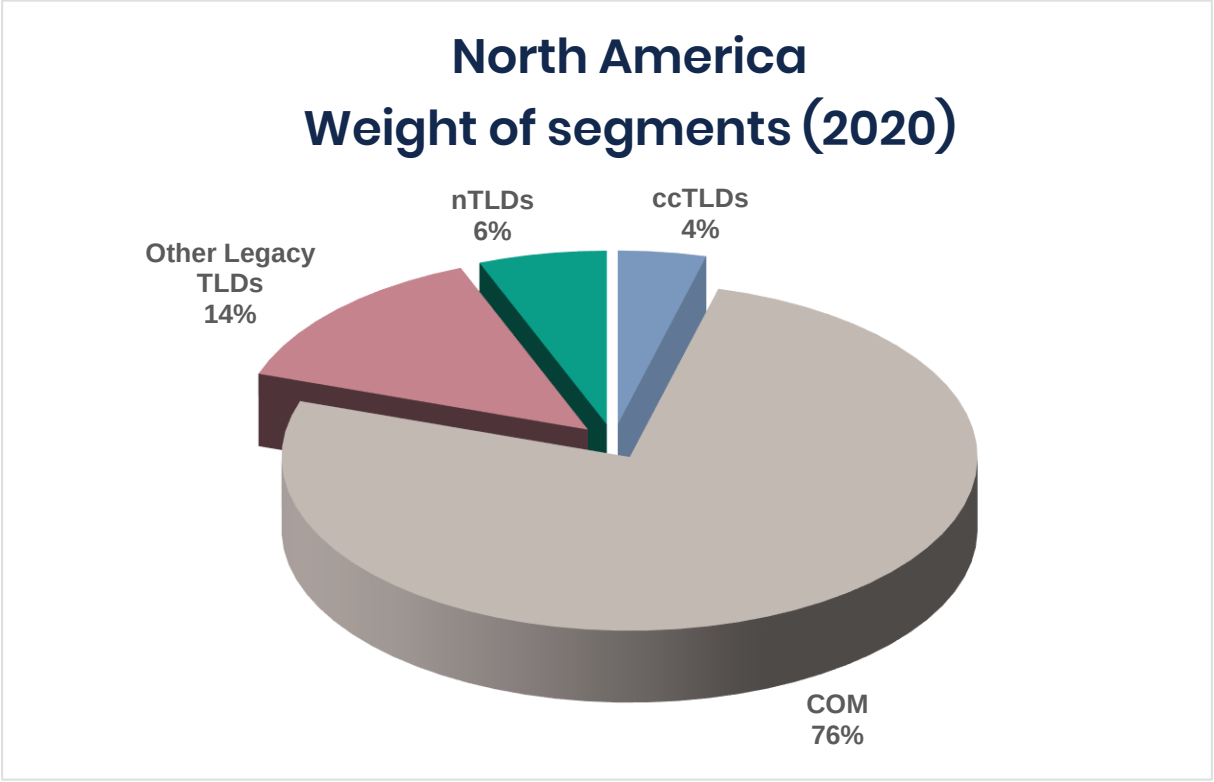
The landscape of the European market shows a preference on the part of the region's users for their national ccTLDs, although the .COM domain alone still accounts for a third of all names registered. But the Other Legacy TLDs and the nTLDs remain marginal – 10% between them – and there are no signs of any breakthrough.

This observation probably also reflects the power of the distribution networks and their own cultural prisms (because they put forward what they think customers will buy).

7.6. Weight of segments in North America

How can we explain that the .COM is world leader when it is "only" a challenger of ccTLDs in all the regions we have studied?

The answer is simple: with its weight (76% as against 75% in 2019) it crushes the other segments in the North American region, which accounts for 34% of the world market (compared with 35% for Europe, 25% for Asia-Pacific, 5% for Latin America and the Caribbean and 1% for Africa).



While the national preference is for ccTLDs in four of the ICANN regions, they are entirely marginal in North America (especially in the United States). The .COM domain holds three-quarters of the market and the Other Legacy TLDs have a market share of 14%, significantly above their weight worldwide. Lastly, nTLDs are at 6% (as against 7% in 2019).

Thus, just as North America is the region that weighs most for the .COM, the latter is the most vital TLD for North America, although it is appropriate to qualify this conclusion by mentioning a non-negligible bias factor: domiciliation of proxy services. Just as in the case of Panama, certain big US registrars (particularly GoDaddy and Tucows) automatically domicile all their clients in North America, particularly since the GDPR came into force. It is therefore undeniable that a certain number of domain names associated with the North America region are in fact held by owners located in other parts of the world.

This state of affairs hampers our estimates of market shares, which must therefore be considered in orders of magnitude only. With the market shares of the major US players increasing (see hereunder), there is a risk that the market will become even more skewed in the coming years.

7.7. Summary tables

The tables below summarise the data on the distribution of TLD segments per major ICANN region, as we have been able to consolidate them based on our various sources.

Distribution (in thousands) of domain names of different TLD segments per ICANN region (2020)

	ccTLD (*)	COM	Other Legacy TLDs	nTLDs	Total	Total 2019	Var. 2020
Africa	2 507	1 337	215	108	**4 167**	*3 343*	**25%**
Latin America & Caribbean	9 581	3 857	803	2 913	**17 154**	*15 718*	**9%**
Asia-Pacific	40 930	23 613	4 062	11 016	**79 622**	*83 532*	**- 5%**
Europe	72 670	33 899	8 193	3 327	**118 089**	*117 540*	**0%**
North America	4 690	87 091	15 820	6 829	**114 430**	*112 533*	**2%**
TOTAL	**130 378**	**149 797**	**29 093**	**24 193**	**333 461**	*332 666*	**0%**
TOTAL 2019	*131 755*	*143 367*	*29 556*	*27 988*	*332 666*		
Var. 2020	**- 1%**	**4%**	**- 2%**	**- 14%**	**0%**		

(*) Excluding "Penny" TLDs. There may be some discrepancies with the data cited above, due to the existence of names for which the country of the holder is not known.

Weight of each segment in the regional total (2020)

	ccTLDs	COM	Other Legacy TLDs	nTLDs	Total
Africa	60%	32%	5%	3%	**100%**
Latin America & Caribbean	56%	22%	5%	14%	**100%**
Asia-Pacific	51%	30%	5%	14%	**100%**
Europe	62%	29%	7%	3%	**100%**
North America	4%	76%	14%	6%	**100%**
TOTAL	**39%**	**45%**	**9%**	**7%**	
TOTAL 2019	*40%*	*43%*	*9%*	*8%*	
Var. (in points)	*- 1*	*+ 2*	*0*	*- 1*	

Weight of regions in the total of each segment (2020)

	ccTLDs	COM	Other Legacy TDLs	nTLDs	Total 2020	Total 2019	V. (pts)
Africa	2%	1%	1%	0%	**1%**	*1%*	*0*
Latin America & Caribbean	7%	3%	3%	12%	**5%**	*5%*	*0*
Asia-Pacific	31%	16%	14%	46%	**24%**	*25%*	*-1*
Europe	56%	23%	28%	14%	**35%**	*35%*	*0*
North America	4%	58%	54%	28%	**34%**	*34%*	*0*
TOTAL	**100%**	**100%**	**100%**	**100%**			

7.8. Topology of ICANN registrars

In this section we focused on ICANN registrars in order to answer a question arising from the above tables: to what extent is the geographical distribution of names linked to the topology of the distribution network, in other words to the geographical locations of the registrars themselves?

Intuitively, the two phenomena form a virtuous or vicious cycle: strong demand leads to the emergence of big registrars, and the presence of big registrars in turn leads to offers at advantageous prices likely to attract a larger number of clients. These dynamics exist at the level of ICANN countries and regions.

ICANN registrars are known from the Transaction Reports, and their countries from the relevant page of the ICANN website. But a restatement is needed to consolidate them (all Legacy TLDs and nTLDs together) into meaningful "Groups" or "holdings". It is necessary to take account of the large number of registrars held by a small number of Groups, notably those that have specialised in "snapping up" or "catching" domain names (the proliferation of registrars being a factor that optimises their chances of picking up the coveted names).

The following table presents these aggregates by ICANN regions, with the volume of domain names managed, Legacy TLDs and nTLDs together. We will study each segment separately later.

Total gTLDs	Groups (*)	Nb DNs managed (***)	% Groups	% DNs managed	Var stock 19/20
Africa	11	79	3%	0%	+ 14%
Latin America & Caribbean	16	1 233	4%	1%	+ 12%
Asia-Pacific	155	45 947	36%	21%	- 8%
Europe	131	26 191	31%	12%	+ 5%
North America	114	142 258	27%	66%	+ 6%
TOTAL	**427**	**215 698**			

Distribution of ICANN registrars by ICANN region as at 31/12/20
(*) Groupings of registrars belonging to the same group
(**) Registrars as shown in the ICANN Transactions Report
(***) Volume of names (in thousands) excluding ccTLDs managed by the registrars concerned

Groups of registrars are above all spread among Asia-Pacific (36%), Europe (31%) and North America (27%). The proportions remained virtually unchanged from 2019.

Although relatively less numerous, registrars from North America account for 66% of the names managed, as against 21% for Asia-Pacific and 12% for Europe. Latin America and the Caribbean and Africa have only marginal weight in both number of Groups and volumes of names.

The reason for this imbalance has to do with the size of the players. Indeed, as the next table shows, 13 of the 30 Groups that manage a million or more names are located in North America, 9 in Asia-Pacific and 8 in Europe.

Volumes	AF	LAC	AP	EU	NA	Total	% 2020	% 2015	Var. pts
1 million or more	-	-	9	8	13	**30**	**7%**	**6%**	**+1**
500,001 to 1 million	-	-	9	5	9	**23**	**5%**	**4%**	**+1**
100,001 to 500,000	-	4	26	29	7	**66**	**15%**	**18%**	**- 3**
50,001 to 100,000	-	2	9	11	12	**34**	**8%**	**10%**	**- 2**
25,001 to 50,000	1	1	9	22	12	**45**	**10%**	**10%**	**0**
10,001 to 25,000	-	2	21	12	12	**47**	**11%**	**14%**	**- 3**
5,001 to 10,000	4	-	18	12	14	**48**	**11%**	**11%**	**0**
5,000 or fewer	6	7	55	33	35	**136**	**32%**	**27%**	**+ 6**
TOTAL	**11**	**16**	**156**	**132**	**114**	**429**			
%	**3%**	**4%**	**36%**	**31%**	**27%**				

Distribution of Groups of ICANN registrars by ICANN region and by volumes as at 31/12/20

Only Groups with a million or more names in stock at 31 December 2020 are taken into account.

The most significant players in the market are concentrated in North America, while Asia-Pacific and Europe are home to more modestly sized groups. Thus if we consider the Groups managing 100,000 domain names or more, the share of North America, which was 45% for the "1 million or more" category, falls to just 24%, compared with 30/37% respectively for Asia-Pacific and 27/35% for Europe.

The list of the top ten Groups (Legacy TLDs and nTLDs combined) sheds additional light on this subject:

Group name	Region ICANN	Countries	Nb NDs (*)		Var.
			2020	2019	20/19
GoDaddy.com, LLC	AN	USA	**69,0**	66,2	+ 4,2%
eNom, LLC	AN	USA	**15,6**	15,4	+ 1 ,2%
Alibaba Cloud Computing (Beijing) Co., Ltd.	AP	China	**12,4**	12,6	- 1,9%
NameCheap, Inc.	AN	USA	**11,7**	9,5	+ 22,5%
Network Solutions, LLC	AN	USA	**10,3**	10,2	- 0,5%
Google LLC	AN	USA	**5,7**	4,2	+ 34,5%
Public Domain Registry	AP	India	**5,5**	5,0	+ 0,5%
NameBright	AN	USA	**5,4**	5,6	- 4,3%
1&1 IONOS SE	EU	Germany	**4,9**	4,9	- 0,1%
GMO Brights Consulting Inc.	AP	Japon	**4,8**	5,4	- 12,3%
Other registrars managing >1 million names	-	-	**34,9**	36,1	- 3,4%
Other registrars managing <1 million names	-	-	**35,5**	35,2	+ 0,9%
TOTAL 10 « LEADERS »			**145,3**	**139,0**	**+ 4,5%**
GRAND TOTAL			**215,7**	**210,3**	**+ 2,6%**
% 10 LEADERS			**67%**	**66%**	

(*) number of names managed in millions

Of the top ten world registrars, six are American, one Chinese, one Indian, one German and one Japanese.

The leader is GoDaddy, with 69 million names under management and accounting by itself for 48% of Legacy TLDs and nTLDs together. The number two, eNom, has “just” 16 million names, and the top five alone have more than 10 million names in stock.

These figures can be qualified: for example, as we have already indicated, not all GoDaddy’s clients are in North America. The practices of resellers would be worth studying in more depth, but there are insufficient data for this. Our intuition, which remains to be confirmed, tells us that resellers overall, being small- and medium-sized local players, tend to seek registrars close to them in terms of language, culture, legal regime and time zone.

Another bias already mentioned is that certain registrars domicile all their clients in a given country by default, to avoid problems linked with the GDPR.

Thus our figures can be considered only in orders of magnitude and not in absolute values, the proportion of owners located in countries other than that of the registrar remaining to be evaluated. The share of North America should perhaps be reduced in favour of other

regions. But the re-distribution formula would also be problematic, and might give rise to other biases even less under control than the current ones.

	Holders	Registrars	Delta Reg - Tit
Africa	1%	0%	- 1
Latin America & Caribbean	4%	1%	- 3
Asia-Pacific	19%	21%	+ 2
Europe	22%	12%	- 10
North America	54%	66%	+ 12

Weight of the ICANN regions in the stock of names registered under the .COM domain Other Legacy TLDs and nTLDs, by country of holders and of groups of registrars

The following table shows the differential between the distribution of Legacy TLDs and nTLDs by region of holders and by region of registrar groups. When this differential is negative, as in Africa, Latin America and Europe, it means that the names are registered by local holders via groups of registrars established in other ICANN regions. This may be the case when they go through local subsidiaries consolidated with the group in the group's country, but also when they use resellers working with these groups.

The Asia-Pacific region is slightly in surplus, but it is above all the North American region that drains domain names registered in other regions of the world.

Europe's "deficit" could partly explain the relative weakness of generic TLDs in the region. The major US registrars have no direct presence there, being content with indirect registrations through subsidiaries or resellers, and the European registrars, being of more modest size, clearly favour the ccTLDs.

Be that as it may, the gap between the weight of the groups of each region in number of groups and volume of domain names shows how much the distribution network influences the development of TLDs, just as users' culture, which tends to favour the gTLDs or ccTLDs, influences the landscape of the distribution network.

Registrar's performances by region

We have calculated the creation and retention rates of the groups of registrars aggregated by ICANN regions, in order to highlight any disparities in the regional dynamics (subject to the biases referred to above).

	Creation rate			Retention rate		
	nTLDs	Legacy TLDs	Total	nTLDs	Legacy TLDs	Total
Africa	32%	34%	34%	91%	73%	76%
Latin America & Caribbean	72%	34%	39%	23%	78%	69%
Asia-Pacific	52%	34%	40%	40%	64%	55%
Europe	47%	18%	22%	64%	84%	81%
North America	57%	23%	26%	53%	81%	79%
World	**54%**	**24%**	**29%**	**46%**	**78%**	**73%**

Performances of groups of registrars by ICANN region

Two categories emerge: North America and Europe on the one hand, with creation rates of 22% to 26% and retention rates of 79% to 81%, and the other three regions on the other hand, which show stronger creation rates (34% to 40%) but with lower retention rates (55% to 76%).

The most salient case is that of Asia-Pacific, where we see the effect of the Chinese mass domaining. More generally however, the split is between the developed regions that started to work on their Internet presence some years ago and the "catch-up" regions, where create operations are more intense relatively and also more volatile.

The last table shows the share of nTLDs in stocks and create operations (of generic TLDs) by ICANN region.

In stocks, the Asia-Pacific region is where the share of nTLDs was greatest in 2020, even though it lost 4 pp relative to 2019. The smallest market share (9%) was in the North American region.

Create operations were unchanged in relative terms, Asia-Pacific posting a 42% share of nTLDs (down by 13 pp relative to 2019). The other regions posted more modest proportions (between 20% and 30%) with create operations on average twice the weights in stocks.

	Mkt. share stocks			Mkt. share create operations 2019		
	2019	2020	Var. (pts)	2019	2020	Var. (pts)
Africa	17%	20%	+ 3	17%	20%	+ 3
Latin America & Caribbean	16%	12%	- 4	37%	22%	- 15
Asia-Pacific	36%	32%	- 4	55%	42%	- 13
Europe	13%	14%	+ 1	27%	30%	+ 3
North America	8%	9%	+ 1	18%	20%	+ 2
World	**15%**	**15%**	**-**	**33%**	**28%**	**- 5**

Share of nTLDs in stocks and create operations of groups of registrars, by ICANN regions

So if there were only create operations, the market share of the nTLDs in stock would grow fast. But the segment's rather low retention rate (44%) compared with the 80% for the Legacy TLDs, explains the difficulty of the nTLDs in gaining market share.

7.9. Lessons learned

Among the lessons drawn from this 2020 study of the regional dynamics, we would highlight the following:

- The nature of the biases identified (proxies) is revealing in itself. Due to the dematerialisation of the market, the country of origin is difficult to discern precisely, especially for gTLDs (Legacy, Others and nTLDs);

- All the same, the broad trends can be seen, both in terms of weights of regions and segments within each region, and dynamics that cross regions and segments;

- Market drivers in 2019, the nTLDs on the one hand and the Asia-Pacific region on the other, were among the hardest hit by COVID-19 in 2020;

- The ccTLDs continue to lose pace globally, but most of them benefited from the effects of the acceleration of the digital transformation, as reflected in the trends in their market shares except in Asia-Pacific (.CN and .TW effect) and Europe (.UK effect);

- The nTLDs remain marginal and lost ground in 2020 globally, while "Other Legacy TLDs" were practically unchanged;

- The .COM domain proved to be the big winner, but its performance needs to be qualified: on the one hand it was not able to benefit fully from the effects of the acceleration of the digital transition on domain name create operations; and on the other hand its progress

was only relative, in a context in which the ccTLDs were penalised by three strong variations;

- In all regions and for all segments, the impact of the "topology" of the distribution network made itself felt. In North America, Asia-Pacific, in Europe to a somewhat lesser extent and in Latin America and Africa to a much lesser extent, the presence of major ICANN registrars favours the dissemination of generic TLDs. In places where these registrars are less present, or smaller, the market power of the generic TLDs is comparable with or less than that of the local TLDs offered by registrars that are too small to be ICANN registrars but more numerous and providing better territorial coverage. Here we can see just how important it is for registrars to develop their networks of resellers.

- These "market topology" factors were indeed added to cultural factors. Generic TLDs dominate in North America, which is what led to the emergence of very large ICANN registrars. In the other regions, preferences are fairly clearly for ccTLDs, which favours the local registrars though at the same time it forces them to offer local TLDs themselves.

- The nTLD segment, and especially that of the "Penny TLDs" with their specific dynamics, drove activity in Asia-Pacific, a somewhat atypical region in that it combines the preference of users for ccTLDs with the major domainers' appetite for nTLDs. 2020 saw this segment and this region particularly affected, but this was linked to the circumstances. The underlying trend was not called into question.

The fundamental characteristics of the market are only slowly changing: added to the sluggishness induced by the practices of the registrars – who prefer to offer products they know they can sell in large quantities, taking advantage of economies of scale -– are the notions of culture and identity still conveyed by domain names, which act as a further brake on change (beyond defensive and speculative registrations). These two keys to understanding the domain name market appear more pertinent than ever in 2020, despite the unusual phenomena linked to COVID.

8. Highlights of 2020 and early 2021

The shifts in the market observed since 2015 continued in 2020, but increased in intensity due to a combination of several factors:

- COVID, of course, but this affected the market without our being able to tell whether it truly called into question the fundamental factors observed in 2019;
- the global slowdown in growth compared with the levels seen in the first half of the decade;
- the cash stresses felt by many players in the nTLD sector;
- the race for the critical size that will allow economies of scale and synergies to be obtained;
- the growing presence of financial groups able to support ambitious acquisition strategies.

Added to these contextual factors are the constant efforts being made as regards innovations, structured around some promising pathways.

8.1. A TLD market that is still active

The movements identified in 2020 and in the first quarter of 2021 are referred to hereunder. They do not constitute an exhaustive list of sales and changes of back-end operators, since we report here only such transactions as were publicised or that we have detected through our monitoring.

8.1.1. Changes in delegatees / registries

- **DotXYZ** acquires (at least) 13 new TLDs: **.QUEST, .MAKEUP, .BEAUTY, .HAIR, .SKIN, .CAR, .CARS, .AUTO, .AUTOS, .HOMES, .BOATS, .YACHTS and .MOTORCYCLES**.
- **UNR (formerly Uniregistry**) acquires .**TRUST** and .**LLP**.
- **GoDaddy** acquires **.CLUB** and .**DESIGN**.

8.1.2. Back-end operators

- **Neustar** recovers back-end operation of .**BANK** and .**INSURANCE** and signs a new contract for .**CO (Colombia)**.

- **ICANN** grants **Verisign** the right to increase its rates. In due course this could have an effect on domainers and other TLDs and could lead to an attractive price differential.

- **Donuts** transfers all the nTLDs operated by its back-end to **Amazon**'s cloud.

- **IEDR** signs with CIRA (registry of .CA) to manage .IE on the **Fury platform**

- **Neustar** sells its entire registry business to **GoDaddy**. Following the recent acquisitions of part of Uniregistry and of Namebright (specialising in service to key accounts), the world's leading registrar is girding up its loins for the second round as a registry operator, particularly targeting candidates for .BRAND names.

These examples show that the market for technical management of TLDs is still active, even though the number of players is limited. The TLDs concerned are both ccTLDs put back into play by their respective governments and nTLDs whose contracts have expired in the past few months.

We can see TLD profiles taking shape as "segments" of this very special market:

- **the major generic TLDs** like .COM, .NET, .ORG, .BIZ and .INFO are practically unmovable, although their management is covered by contracts between ICANN and the registries which periodically come up for renewal.

- **the major ccTLDs** are in a stable situation fairly comparable to the domains of the previous category, but being more closely controlled by their governments, mostly follow the principles of a cost-oriented management approach. The price differential between Legacy TLDs and ccTLDs will therefore probably continue to widen in the coming years, benefiting the ccTLDs;

- **geo-TLDs** remain attached to the regions or cities that they designate. They are therefore unlikely to be sold or transferred, but may well change back-end operator;

- **BRAND names** are also linked to their delegatees when they are used, but they may also be sold and transformed into generic TLDs if their initial delegatees have not used them;

- **generic nTLDs**, regardless of size, are the most "volatile" in terms of both the level of sales/disposals and their back-end operation.

This segmentation can result in fairly differentiated profiles of back-end operating offers, while we see a certain number of players attentive to the opportunities that could be presented in terms of straight acquisitions. The fragile financial position of many registries adds to this volatility.

8.2. Mergers and acquisitions: continuous consolidation, accompanied by financiers

Mergers and acquisitions, which have proliferated in our market for some years, are largely made possible by the flow of capital resulting from financial groups taking equity interests. This phenomenon continued and even intensified in 2020/2021.

- **Ethos Capital** acquires **Donuts** (January 2021) a few weeks after Donuts bought Afilias (December 2020). The group formed by the merger of Afilias (a leader in .BRAND) and Donuts (leader in generic nTLDs) represents about 36% of nTLDs, of which 56% of the generic TLDs and 22% of the .BRAND TLDs. In volumes of names managed it represents about 15% of nTLDs, 20% of generic and 21% of .BRAND.

- **GoDaddy** raises $800 million to finance future acquisitions and acquires **MMX** (formerly Minds+Machines) and its 28 TLDs

- **CentralNic** acquires French registrar **Safebrands** (January 2021) and issues €15 million in bonds to finance future acquisitions.

- Investment fund **Clearlake** acquires the Endurance International group (Domain.com, Hostgator, BlueHost, Constant Contact, Reseller Club and Big Rock) for $3 million.

- **WGH Holdings B. V.** acquires registrar **NameSilo**, saying that it has great ambitions for growth in Africa.

- **Web.com** acquires **Freeparking** (New Zealand registrar).

8.2.1. Transactions to diversify / consolidate the value chain

- **GoDaddy** acquires **WooCommerce** (development of plug-ins) and Poynt, online payment specialist.

- **Neustar** acquires Verisign's "Public DNS Service"; **Verisign** continues to focus on the .COM domain.

- **CentralNic** acquires **Codewise** (monetisation).

- **RED Technologies** acquires the **Spectrum Management** business of **Nominet**.

- **DomainTools** turns for the first time in its history to an investor, **Battery Ventures**.

8.3. New services

Confronted by a certain sluggishness in their environment, players in the domain name market have continued their efforts in terms of innovations and the search for diversification paths.

We have endeavoured to group these burgeoning initiatives into a few major themes, mentioning various examples without claiming to be exhaustive.

8.3.1. Data, Security and Monitoring

We are increasingly seeing the development of offers positioned at the confluence of issues surrounding **Data (particularly WHOIS), Security and (Brand) Monitoring.**

- **CZNIC** proposes a new service, **"Penetration Testing"**, allowing vulnerabilities in IT infrastructures to be detected and localised:

  The aim of these tests is to identify access to key elements of the network, verify the possibility of owning them, and propose effective measures. Each penetration test is carried out for a fee on the basis of a specific order. After the testing, each client will receive a summary report of detected vulnerabilities along with recommendations for addressing them.

- **CZNIC** launches **"Turris Shield",** designed to protect networks of "normal" users such as professionals.

- **Eurid** (EU) launches a system for preventing and anticipating abuse, called **APNEWS** for "*Abuse Prevention and Early Warning System, the first ever system that can detect domain name abuse before it takes place and bases its decisions on novel machine learning algorithms developed at KU Leuven*".

- **SIDN** (.NL) publishes statistics on the detection of fake shops and launches a user-friendly security solution for VSEs/SMEs.

- **SIDN** describes a new hacking technique, **"smishing"**, consisting in conducting phishing campaigns by SMS.

- **SIDN Labs** is taking part in two cybersecurity projects co-financed with the **NWO** (Netherlands Organisation for Scientific Research): **UPIN** (User-driven Path verification and control in Inter-domain Networks) and **RAPID** (Remediation of comPromised IoT Devices).

- **SIDN** (.NL) launches an **"Anti-abuse network" (abuse.nl)** and publishes an "Internet Security Manifesto".

- **SIDNLabs** communicates about **DEX**, a tool developed to effectively combat domain names used for abusive purposes.

- **InternetNZ**, the registry of the .NZ domain, announces the launch of its cybersecurity solution **Defenz Domain Name System (DNS) Firewall**.

8.3.2. Innovations brought to market or in preparation

2020 saw the continuation of the innovation dynamic, despite the context:

- **BRS Media,** registry of the .FM (Federation of Micronesia) domain, adds 120 new "emoji" characters to those it already offered. This registry has sold domain names formed by emojis since 2018.

- a new snapping/dropcatching service, **Catched.com,** appeared with the particularity that it concentrates on ccTLDs and nTLDs. Most of its historical competitors focus on Legacy TLDs (basically the .COM domain), which are most likely to interest the major domainers.

- the Russian registry **ccTLD.ru** made available an online space dedicated to its methodology for valuing domain names. **https://app.cctld.ru/**

- **CZNIC** contributes its digital identity solution **mojeid** to the Czech government bodies to facilitate the roll-out of "egovernment"

- **Donuts** launches its **TrueName** service for holders of names under its TLDs. It allows upstream blocking of any attempt to register domain names similar to names already registered, including homoglyphs (visually resembling the name by combining ASCII characters and IDNs, for example tombola.guru and t0mbola.guru). These kinds of services can help combat the use of such names in phishing expeditions.

- **Google Cloud** launches **Cloud Domains**, a centralised domain name management service via the **Google Cloud Platform.**

- **Radix** inaugurates **Namify,** a new domain name generator

- **SIDN** announces a partnership with **Hiscox** to "promote cyber-resilience"

- **SIDN** announces that it has improved its tool for suggesting interesting names under the .NL domain, notably by adding filters.

- **Verisign** offers a new version of its API **Namestudio** allowing registrars and their resellers to develop their sales. The suggestions of names to register take account of new parameters such as:
  - Marketplace store and business social media account names ;
  - Social network, website builder, e-commerce and video streaming platform URL ;
  - Business categories (example: fashion, restaurant, professional services).

8.3.3. Infrastructures

- **NIC.AT** signs up new ccTLDs for its anycast service **RCODEZERO**: .BE (Belgium), .FI (Finland), .IE (Ireland) and .SI (Slovenia).

- **NIC.AT** indicates that it is a stakeholder in the Austrian "public blockchain service" (APSB) initiated by the Austrian Federal Chamber of Commerce and other government institutions.

- **CZNIC** launched its **Turris MOX** router onto the market

- **DENIC** has made its **DNSmeter** tool for measuring the performance of DNS servers available to the community, entrusting it to **DNS OARC**.

- **SIDN Labs** launches an experimental DoH server.

- **SIDN** communicates on **BGP Tuner,** a tool allowing DNS anycast infrastructures to be managed intuitively.

- The Russian company **Joint Internet Exchange MSK-IX** is accredited by **ICANN** as a new Escrow Operator.

9. Conclusions and outlooks

The domain name market went through an atypical period in 2020 which played a part in revealing certain phenomena that are not usually evident to observers.

One of the most remarkable of these was the impact of the lockdowns on mass domaining and consequently on "Penny TLDs", but also on create operations of Legacy TLDs. This showed that the solidity of the .COM domain these past few years has been partly upheld by domaining strategies, which have ended up weakening it.

Another finding revealed by the pandemic is the direct link between the development of businesses' online presence (acceleration of the digital transition) and the dynamic of create operations, most of them for ccTLDs. These create operations are in principle linked to use and therefore more "valuable", more lasting than simple defensive create operations or those linked to mass domaining.

Beyond the specific variations, which as we have shown in many cases need to be interpreted with caution, the domain name market as a whole seems to have been strengthened by the transformations linked to the need imposed on businesses to secure an online presence for themselves. There are still doubts as to how lasting these trends will prove, but a return to how things were before seems unlikely.

This is because the changes have been in society's ways of selling, exchanging, communicating and working, worldwide. The longer the pandemic lasts, the harder it becomes, and the less desirable, to turn the clock back.

The main threat to the market in 2021 comes from the economic crisis, which will inevitably lead to a large number of business failures. But here too it seems reasonable to assume that the proportion of failures will be lower among players that have secured an effective online presence. Domain names are not the be-all and end-all, but they do play an irreplaceable key role.

So the domain name market will continue to attract many players who are as yet strangers to it. The leaders' efforts to maximise integration of the online presence value chain leads them to gradually dilute their original core business within a range of offerings that position them in different markets with different dynamics. They have no choice, if they wish to avoid one day being pushed aside by players that have yet to enter the domain name market but that enjoy positions that would allow them to establish themselves fairly quickly. The strong advance of Google Registrar in 2020 (sixth place worldwide in Legacy TLDs and nTLDs, with 35% growth in stock) bears eloquent testimony to this process.

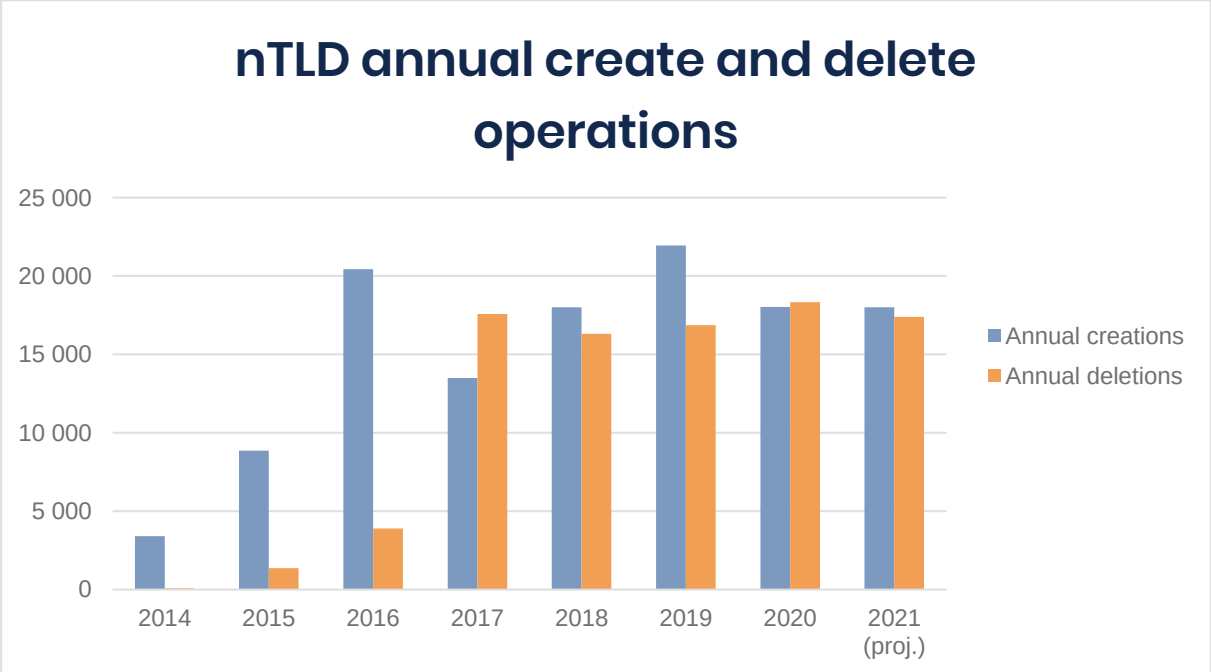
Leading on from this reasoning, it would not be either unexpected or illogical for M&A transactions, which have hitherto tended to take place within the market, to take place more and more on the initiative of "external" players aimed at players in the domain name market, or symmetrically (as we have already begun to see). An announcement that GoDaddy or Donuts/Afilias is being taken over by Google, though at present still in the realms of "what if",

is by no means unrealistic. On the contrary, the presence of financiers at the helm of a growing number of groups increases the chances of such events materialising sooner or later, notably in conjunction with the second ICANN round.

There was not much talk of this in 2020, as there was general agreement that there were other priorities. But players such as GoDaddy and Donuts/Afilias have been girding their loins to make sure they are ready for battle when the time comes. If their underlying strategic assumptions are right, the market landscape will see substantial changes in the coming years, with an explosion of the number of .BRAND domains and no doubt different ways of understanding and using TLDs as new functionalities are developed. The unexpected success of the .CLUB domain, linked directly to that of ClubHouse, showed in late 2020 and early 2021 that the main problem of the nTLDs is not their lack of intrinsic value but the lack of demand due to the lack of use.

In the short and medium term, the broad lines of the conclusions drawn in previous years still hold good. The challenge for the entire domain name market is still to move out of a "binary" mode in which the .COM domain is dominant in North America and the ccTLDs predominate in other regions - and COVID has only sharpened this dichotomy. Unless effective solutions are found, future entrants (.BRAND aside) risk being more or less suffocated between these well-established competitors, the benefits of the diversity that they bring risk not being sufficiently perceived by users or having to be prohibitively priced, hampering their commercial development.

Other things being equal, the nTLD segment should be in balance in 2021, if create operations remain at a level capable of absorbing the losses posted by the .ICU domain in Q1 2021.

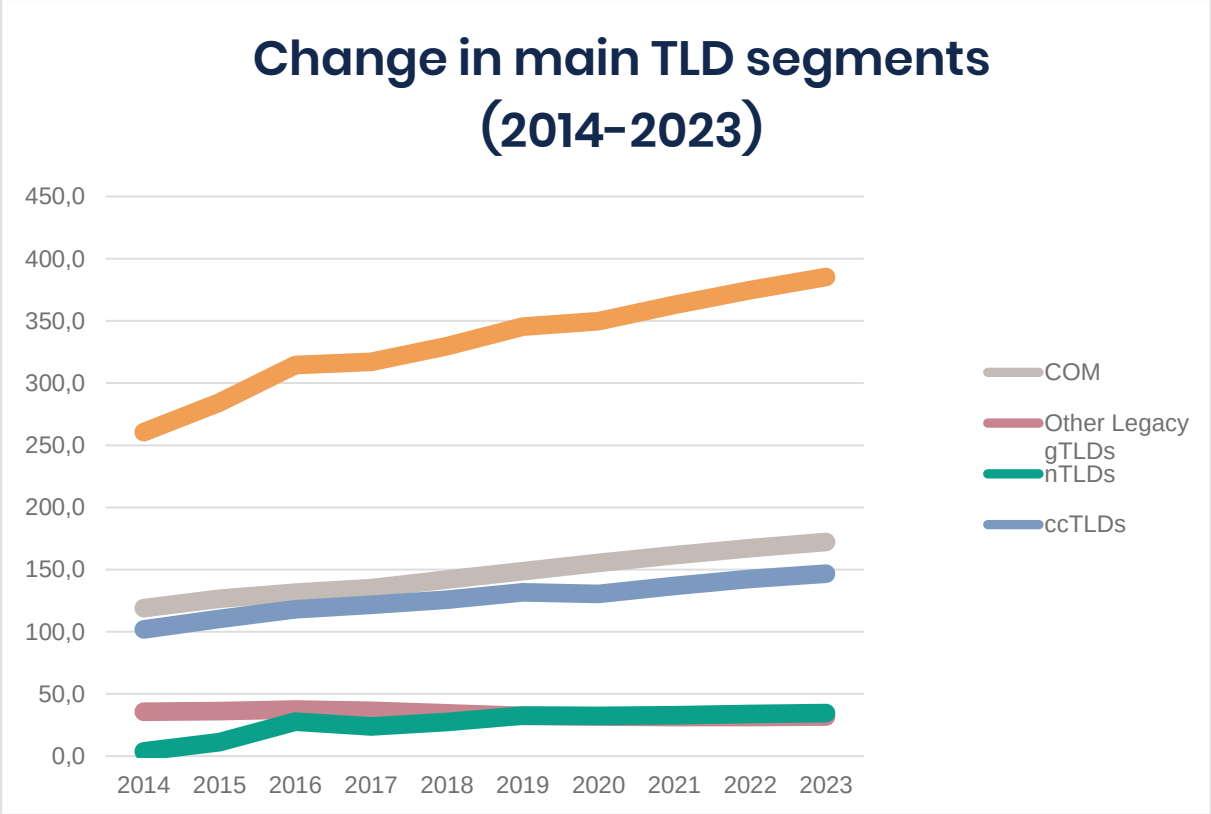


However, the situation remains unstable in the sense that it relies heavily on just a score of high-volume TLDs, even though the .ICU domain may be an exacerbating factor. Their trajectories are hard to read, as they often rely on marketing policies that do not allow registries to make enough profit to ensure their sustainability. For how much longer will they be able to hold out?

As for the other segments, it remains to be seen whether in 2021 they will continue in the furrows of 2020 or tend to revert to the pre-pandemic ones.

Create operations, particularly of ccTLDs, were turbocharged in 2020. Will they remain at these exceptional levels, or will they fall back to their previous levels? The continuing lockdowns lead us to think that 2021 will be another good vintage for these players.

Continuing with this logic, Legacy TLDs should see relative growth in create operations, given that the 2020 figures were devalued by the fall in mass domaining. Their main difficulty is that they are poorly equipped, with the exception of the .COM, .NET and .ORG domains, to take advantage of soaring demand elsewhere than in North America.



So 2021 should see fairly sustained growth in the domain name market (5-10%), with business failures taking time to materialise and the dynamic of create operations continuing to be stimulated by the consolidation of digital habits induced by the lockdowns.

Faced with these complicated market conditions, which are difficult to interpret in terms of their medium- and long-term implications, the two underlying trends, which are the concentration of players and the search for innovations in themes connected with domain names (Data, Cybersecurity, IoT, digital identities, etc.), will remain topical.

They may even become more pronounced, with domain names gaining in meaning and value as they become more associated with habits and practices. The constant evolution of habits and practices makes innovation a permanent driver of this market and an imperative necessity for all its players.

But the landscape of the market itself will evolve as the “pure players” become ever fewer and the process of alliances, mergers and acquisitions with other players in the “online presence” value chain moves on.