The Global Domain Name Market in 2019

Afnic Studies

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1. Introduction

The publication of ICANN statistics as at 31/12/2019 allows a quantified assessment of 2019, a period of uncertainty following the reboot of 2018.

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 market for domain names in France** 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.

For the record:

- the growth of the French market as a whole was 2.0% in 2019 compared with 2.1% in 2018 [for the .FR these same figures were 3.7% in 2019 against 4.4% in 2018];

- the market shares of the various segments were, at the end of 2019, 38% for the .FR, 45% for the .COM, 11% for the “Other Legacy TLDs”, 4% for the French-owned foreign ccTLDs and 2% for the “new TLDS”.

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

- in French:
https://www.afnic.fr/medias/documents/etudes/2020/Le_.FR_en_2019.pdf

- in English:
https://www.afnic.fr/medias/documents/etudes/2020/The_.FR_ccTLD_in_2019.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): top-level 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 the .FR, but there are other French ccTLDs such as .RE (Réunion Island), .PM (Saint-Pierre and Miquelon), etc.

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

Legacy gTLD: a generic TLD created before 2014. These are “legacy” TLDs such as .COM, .NET, .ORG or more recent (2001-2004) such as .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), .BRANDs (TLD suffix 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 2019, the global domain name market represented some 346 million domain names, including:

- 181 million "Legacy TLDs" (.COM, .NET, .ORG, etc.)
- 33 million "new TLDs" created from 2014 onwards
- and 132 million ccTLDs[1] (so-called "geographic" domains).

- Overall market growth in 2019 was 4.7%, an improvement compared with the 4.0% in 2018, but this performance is misleading in that it is due to a very small number of TLDs having seen large variations. Excluding these TLDs, the general trend is rather one of stable moderate growth or even slight decline.
- nTLDs as a whole stepped up the pace of growth in their stock to 19% in 2019 against 15% in 2018, but this performance was essentially due to the explosion in the .ICU. They increased their market share to 9% (against 8% in 2018), but this remains marginal compared with those of the .COM (43%) and ccTLDs (38%). The Other Legacy TLD segment continues to lose ground (10% compared with 11% in 2018).
- Overall, we might assume therefore that disposals therefore continued between the nTLDs and Other Legacy TLDs in 2019 as in 2018, but an analysis of the causes of the changes in these two segments leads us to qualify this assumption. Except for a few volume-oriented nTLDs of questionable durability, nTLDs in general evolve in a way that in several respects resembles that of the "Other Legacy TLDs", particularly as regards creation and retention rates.
- Legacy TLDs (created before 2012) continue to be characterised by the growth of .COM and by the decline of the other TLDs in this segment, caused mainly it seems by a "crisis" in create operations. The situation of these "Other Legacy TLDs" is all the more interesting to follow in that it allows large-scale analysis of the dynamics that also affect nTLDs.
- The regional dynamics of the ccTLDs remain uneven, with sustained increases in Africa (+6% compared with +15% in 2018) and Latin America (+5% compared with +6%) while growth in Europe remains modest (+2% compared with -1%). North America on the other hand fell 5% (compared with a gain of 0.9% in 2018), mainly because of the .US. Asia-Pacific (+11% against +12% in 2018), buoyed by the .CN (China), managed to keep growth in double digits despite the decline in the .TW (Taiwan) as a result of the non-renewal of numerous names registered in 2018.
- Among the nTLD segments, Community TLDs suffered from the continued collapse of the .рус (Russian), losing 20% in 2019. Geographic TLDs also posted a slight loss (-5%), while Generic TLDs were stable overall (-1%). .BRAND TLDs gained 8%, but it was above all the few "open" .BRAND TLDs that made the difference, with growth of 5.6 million names in absolute terms and 549% as a percentage.
- Changes in the number of TLDs per segment particularly affected .BRAND TLDs in 2019 (-24). Two were reconverted to Generic TLDs.

[1] *32 million "penny" ccTLD have been withdrawn from this total, for reasons explained later in this study.*

- Two thirds (65%) of new TLDs other than .BRAND have fewer than 10,000 names in the portfolio, while only 1% exceed 500,000. For many of them (except the .BRANDs), the low volumes are a serious handicap for the balancing of their accounts and the financing of their development.

- “Penny TLDs” represent 20 TLDs and 16 million domain names, i.e. 2% of nTLDs and 48% of the overall nTLD stock.

- The study of the distribution of domain names in the various ICANN regions shows that ccTLDs are still leaders in every region except North America, dominated by the .COM. Their dominant position was eroded however in 2019 in all regions, in favour of the .COM, which remains broadly in the minority outside North America.

- These data highlight the difficulty for new entrants to impose themselves faced with “cultural prisms” in one case prioritising the notions of region and proximity, and in the other case a global approach that overrides any reductive specific feature implied by the TLD chosen.

- The other major determinant of the market is the “topology” of the distribution network, 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 that it leads to.

- The strategies of the major players were structured in 2018 by phenomena such as the overall slowdown in growth relative to the levels of the first half of the decade; cash stress experienced by many nTLD players; the race for critical size to achieve economies of scale and synergies; the growing presence of financial groups that can support ambitious external growth strategies. Added to these contextual factors are the increasingly consistent efforts being made as regards innovations, structured around some promising pathways.

- We have therefore seen a continuation of buybacks, mergers, and changes in back-end registries, but it is difficult to say whether the profitability and sustainability objectives of the players concerned will be achieved in a context where create operations tend to decrease while the retention rates need to be monitored.

- The hopes (and the impatience) expressed by numerous players in 2018 regarding ICANN’s second round have become less strident, the horizon for this second round still being some way off. For all that, the strategies of the main players seem fairly unchanged. Tariffs are gradually “normalising” with the rise of financial approaches sometimes opposed to purely entrepreneurial considerations, but we have seen the registries of the main Legacy TLDs obtain the right to increase their prices in the future, proof if it were needed that “low-cost” approaches will no doubt remain marginal in the next few years.

- As we already noted in 2017 and 2018, the fact remains that 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. The transformation is not an obvious one for every player and remains slow to enter the mores, registrars often considering themselves as wholesalers whose role is not to build and facilitate dealer networks optimised for this or that target. Current and future nTLDs cannot, however, be successful without the changing of the retail system. Everything continues as if the domain name market were still sufficiently thriving for most of the players to hold their own, without any pressing need to reinvent their *modi operandi* to bring about a better match between supply and demand.

- The market for the technical management of TLDs remains fairly dynamic, with a probable profiling of offers in the next few years depending on the resources and ambitions specific to each segment: Legacy TLDs, ccTLDs, nTLDs and their “sub-segments”.

- As regards registries, problems and solutions for managing digital identities, services linked to data (including monitoring and security), the improvement of DNS infrastructures, cybersecurity, Blockchain and the Internet of Things remained the main paths of development and diversification.

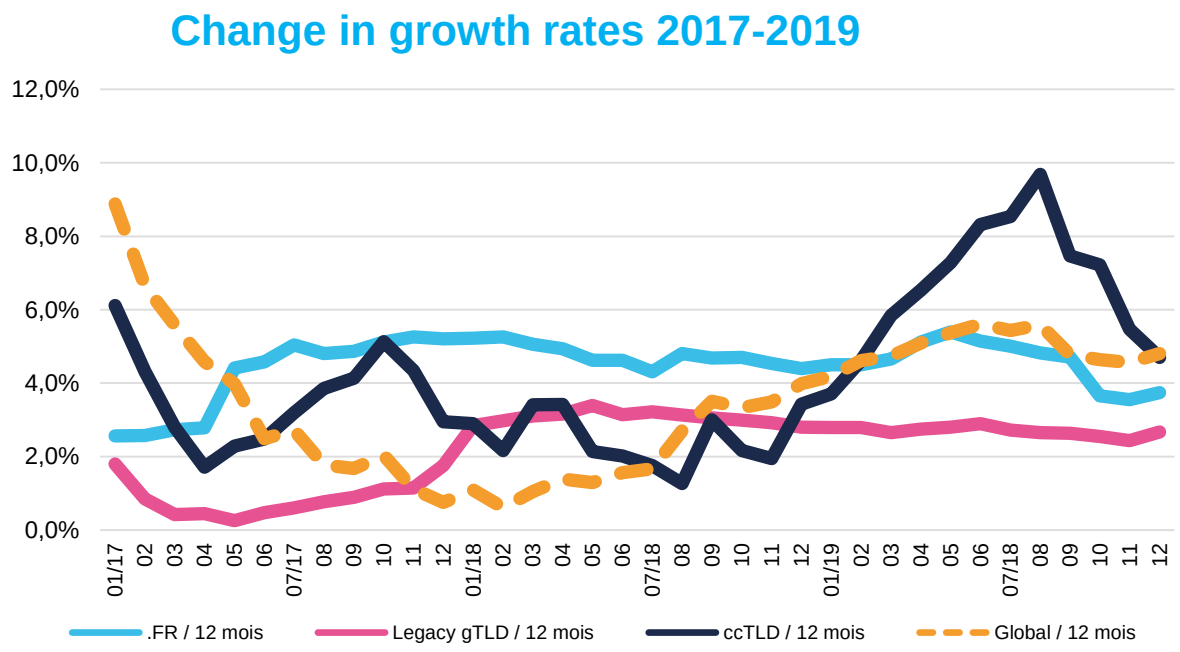
3. Global trends

The domain name market (excluding the penny TLDs) represented 346 million names worldwide at year-end December 2019, up 4.7% from 2018 (330 million). After continuing the growth initiated in 2018 until July 2019, the market fell slightly in the third quarter before resuming its rising trend in the last quarter, buoyed by the .ICU.

3.1. An upswing ahead?

The chart below shows the end of the “bell” phenomenon in 2017 which reflects the sharp acceleration in growth in 2015/2016 before a depression in 2017/2018 following the delete operations of the names up for renewal.

A rally was subsequently seen from the first quarter of 2018 to the second quarter of 2019, with a decline in the fourth quarter. The curve for ccTLDs (country TLDs) shows that the overall variations in the market are largely determined by those of this segment, which experienced sharp variations in 2019.



The new TLDs are not included on this chart because the large variations in their amplitude would overwrite the other curves. They represented -15% in 2017, +15% in 2018 and +20% in 2019. But these annualised performances hide a loss of dynamism in the third quarter of 2019 (+6.2% YoY), offset by the year-end explosion in the .ICU.

3.2. Contrasting performances

Table 1 below shows the main indicators for each market segment between 2017 and 2019.

	Stock (m DNs)			Variations (%)			Market share (%)		
	2017	2018	2019	2017	2018	2019	2017	2018	2019
.COM	135	142	149	2.8%	5.2%	4.8%	43%	43%	43%
Other Legacy TLDs *	36	34	32	-1.9%	-6.0%	-6.0%	11%	11%	10%
nTLDs	24	27	33	-14.6%	15.4%	19.2%	8%	8%	9%
Total gTLDs **	*195*	*204*	*214*	*-0.6%*	*4.3%*	*4.9%*	*62%*	*62%*	*62%*
ccTLDs ***	122	126	132	3.0%	3.5%	4.7%	38%	38%	38%
TOTAL	**317**	**330**	**346**	**0.8%**	**4.0%**	**4.7%**	**-**	**-**	**-**
*Penny ccTLDs ********	*25*	*31*	*49*	*8.6%*	*26.0%*	*54.9%*	**-**	**-**	**-**

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 the .FR for France. The data presented do not include "Penny TLDs" i.e. ccTLDs retailed at very low prices, if not free of charge. These ccTLDs are subject to very large upward and downward movements that do not reflect actual market developments and bias aggregate data.*
***** Penny ccTLDs: estimated volume of names filed in these "low-cost" or free domains.*

With 149 million names (+ 7 million), the .COM remains the market heavyweight, but its market share remains unchanged at 43.1%. Although slowing, its growth remains enviable for a TLD of its size.

"Other Legacy TLDs" continued to suffer in 2019, losing another 6% of their stock (- 2 million). These figures show that negative factors still weigh on these TLDs, factors that we shall explain later in our study.

New TLDs gained 19% in stock (+ 6 million) following the 15% gain of 2018. These variations reflect the impact of certain TLDs marketed aggressively like "Penny ccTLDs". In this study we propose a methodology for identifying them.

Country-code TLDs (ccTLDs) ended the year with growth of +4.7% (+ 6 million) but after months of ups and downs determined by a small number of specific cases.

Market shares are fairly static overall, the main change being the one-percentage-point swap between "Other Legacy TLDs" (down) and nTLDs (up).

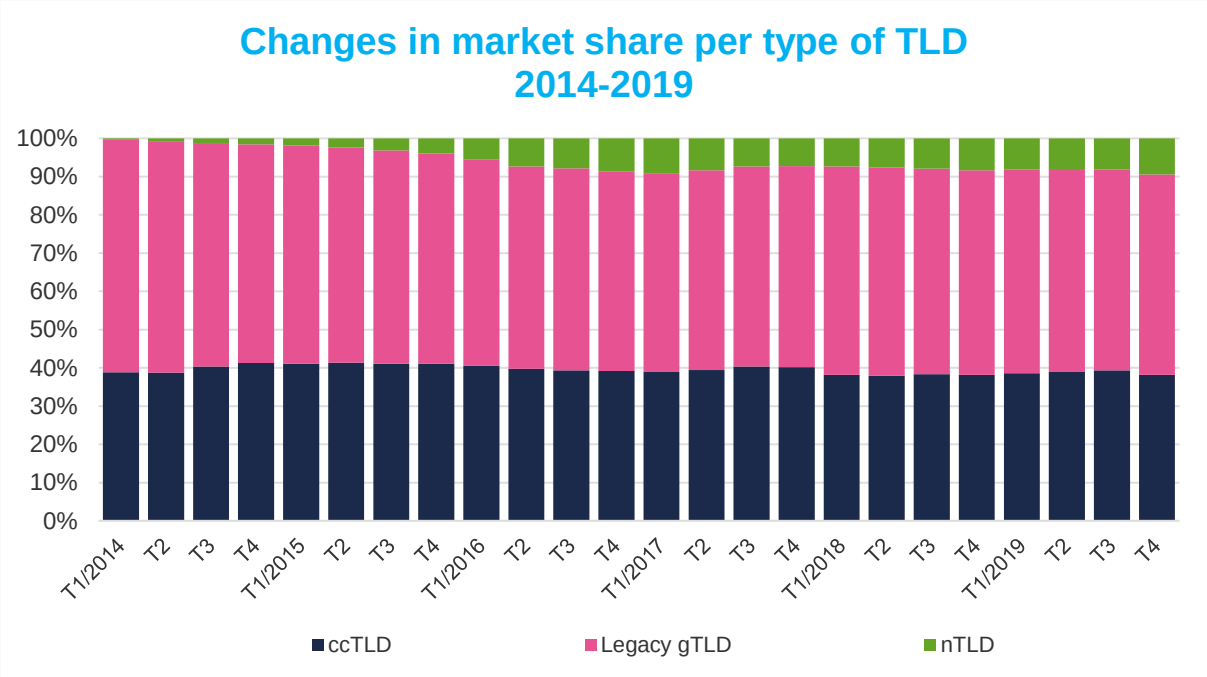
2018 marked a return to growth after the set-down of 2017. Performances were more varied in 2019, the salient fact being that market variations tend to depend on a limited number of TLDs. This raises the question as to whether the underlying trend is not one of stability, disturbed only by a few spectacular – and usually one-off – phenomena that muddy the waters.

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, a new uptick, but not enough to pass the 10% market share mark.

Note that 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 is partly offset by the decline in "Other Legacy TLDs". Apart from this, the most significant movements in ccTLDs are often due to bonanza effects leading to domaining waves (as with the .TW and .UK). This might lead one to suppose that it is always the same "public" involved, disposing and investing 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) applies 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. A market somewhat less dominated by the .COM in 2019

The same data expressed in net balance highlight the weight of the different segments in the overall performance of the market in 2019. It can be seen that the .COM alone now accounts for just 43% of the net balance (compared with 56% in 2018 and 156% in 2017), while ccTLDs contributed 37% and nTLDs 33%. These figures are still inflated by the under-performance of the Other Legacy TLDs, which reduces accordingly the basis for calculating the various contributions as percentages.

The data in absolute values are more interesting for establishing orders of magnitude. Thus the net balance for 2019 was the strongest in three years, and this is so for both nTLDs and ccTLDs. The .COM

remains at an enviable level, but its role as “market maker” seems to be waning. This being so, the quality of registrations will probably make the difference in the medium term: although speculative phenomena undoubtedly exist among .COM, the proportion of registrations that they represent is likely to be less than in nTLDs or even, in 2019, than in ccTLDs taken as a whole. This is likely to weigh on results for 2020, leaving aside the effects of the coronavirus.

	Net balances (millions of DNs)			Weight in the total		
	2017	2018	2019	2017	2018	2019
.COM	3.7	7.0	6.8	156%	56%	43%
Other Legacy TLDs	-0.7	-2.2	-2.1	-31%	-17%	-13%
nTLDs	-4.1	3.7	5.3	-172%	29%	33%
Total gTLDs	*-1.1*	*8.5*	*10.0*	*-47%*	*67%*	*63%*
ccTLDs (excluding “Penny”)	3.6	4.3	5.9	147%	33%	37%
TOTAL	**2.5**	**12.8**	**15.9**	**-**	**-**	**-**

These data are useful for giving an 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's take a closer look at each of these three segments to try to better understand the phenomena at work in 2019.

4. Legacy TLDs in 2019

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 considerably, from the few names of the .POST to the 149 million of the .COM.

In order to present relevant summary tables and indicators, we shall only distinguish the six most important in terms of volume, aggregating the other 12 in an “Others” line. In 2019, the total stock of “Legacy TLDs” grew by 3%, as did creations, while the retention rate held steady at 78%. However, situations are highly disparate.

	Stocks (thousands)			Create operations (thousands)			“R” (thousands) (*)		
	2018	2019	Var.	2018	2019	Var.	2019	% 2019	% 2018
.BIZ	2,240	1,635	-27%	811	328	-60%	1,307	58%	67%
.COM	142,049	148,817	5%	35,476	37,816	7%	111,001	78%	79%
.INFO	5,539	4,942	-11%	1,504	1,403	-7%	3,539	64%	58%
.MOBI	480	435	-9%	54	56	2%	379	79%	78%
.NET	14,288	13,737	-4%	2,762	2,456	-11%	11,281	79%	77%
.ORG	10,663	10,454	-2%	1,953	1,719	-12%	8,734	82%	80%
Others	1,162	1,120	-4%	328	283	-14%	838	72%	74%
TOTAL	176,422	181,140	3%	42,888	44,060	3%	137,080	78%	78%

** “R” refers to the number of domain names retained in 2019. This figure is obtained by a fairly simple equation: R = Stock at 31/12/2019 - Create operations 2019.*
This is because the stock of a TLD at the end of 2019 is mathematically constituted by the names of the stock as at 31/12/2017 retained in the portfolio to which have been added the domain name creations of 2019. 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 2018.
Rr R 2019 = R / Stock 2018
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”.

4.1. Persistently contrasting situations

The data presented above show that the situations of the main Legacy TLDs differ profoundly. The .COM dominates by volume but also by growth: it is the only one of the 6 main Legacy TLDs to continue to grow, with create operations up by 7% offsetting a slight fall in the retention rate.

Among the other major Legacy TLDs, the .BIZ and .INFO posted rather mediocre performances in 2019. These were due in part to promotional campaigns in 2018, which led to levels of create operations not reproduced in 2019 (hence the decline observed, particularly for the .BIZ). Trends in retention rates were varied: that of the .BIZ was hit badly by the non-renewal of the promotional names registered in 2018; that of the .INFO in contrast tended to improve, albeit not enough to prevent a decline in the stock.

The situation of the .MOBI is still critical: its retention rate remains at a reasonable level but create operations were not enough to maintain the stock and are headed downwards, with no prospect of a return to growth in a context in which its usefulness (identifying content optimised for mobile phones) is in question and the proliferation of supply dilutes it among numerous other options. As for the retention rate (79%), it is no doubt explained by a certain number of names that have been used for many years, migration being considered complicated, and by defensive names. The latter are the most vulnerable in

the medium and long term, beneficiaries being increasingly encouraged to clean up their portfolios or make disposals in a context in which budgets remain stationary.

The .NET saw create operations fall by 11%, which was partly due to the constant increase in prices set by Verisign. The level of renewals however was comparable to that of the .COM, and the decline in stock in 2019 was therefore due in essence to the insufficient number of create operations.

The .ORG completed its last year with no increase in price, with a spontaneous fall of 12% in create operations leading to a smaller fall in stock than in the case of the .NET due to a better retention rate. This will probably deteriorate in the medium term due to price increases, but the market inertia is such that this phenomenon will no doubt not become critical for several years, as in the case of the .NET.

As for “Others”, they follow the general trend with varied fortunes. All have retention rates in excess of 85%, with the exception of the .PRO (56%), .TEL (77%) and .XXX (39%). While the .ASIA fell by 53% in terms of create operations, others clearly made use of promotional operations, such as the .TEL (+389%), .TRAVEL (+31%) and .XXX (+53%). The profile of the .XXX (very dynamic create operations, very low retention rate) renders its strategy similar to that of the low-cost nTLDs to which we shall return presently.

4.2. Moderate improvement in retention rates

The retention rate is a key indicator for a TLD, for at least two reasons. The first is that it reflects the loyalty of the domain name owners, providing clear information on the durability of the TLD. The second is that the financial solidity of a registry is essentially due to the billing of annual renewal fees: for a well-established registry, these annual fees generally account for more than 75% of total revenues. Create operations contribute the growth dynamic, but the basis is formed by renewals.

As we have seen, particularly in the case of the .BIZ in 2019, there are close links between the quality of create operations for a given year and the retention rate of 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.

	2013	2014	2015	2016	2017	2018	2019	Var. 18/19 (in pts)	Avg. 2013-2019
.BIZ	75.3%	66.8%	68.3%	76.2%	66.4%	66.9%	58.4%	-8.5	68.3%
.COM	78.0%	77.5%	77.4%	78.2%	77.4%	78.9%	78.1%	-0.8	77.9%
.INFO	51.2%	61.2%	65.3%	76.6%	66.9%	57.8%	63.9%	+6.1	63.3%
.MOBI	69.6%	58.1%	68.6%	76.6%	70.8%	78.2%	79.1%	+0.9	71.6%
.NET	76.6%	76.6%	76.7%	79.6%	73.9%	77.1%	79.0%	+1.9	77.1%
.ORG	78.4%	78.2%	78.4%	82.2%	79.6%	80.4%	81.9%	+1.5	79.9%
Others	69.1%	64.5%	81.4%	82.5%	64.8%	73.6%	72.0%	-1.6	72.6%
TOTAL	**76.4%**	**76.4%**	**76.8%**	**78.5%**	**76.6%**	**77.8%**	**77.7%**	**-0.1**	**77.2%**

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

With their 63% and 68% average retention rates over the period 2013-2019, the .INFO and .BIZ seem more geared to aggressive marketing strategies than the .COM or .NET. The .ORG has the strongest rate, which no doubt reflects real loyalty on the part of its domain name owners. The .MOBI has considerably improved its score over the course of the last two years, after a long purge.

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. Thus we see that 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 situation, although a caricature, could await certain Legacy TLDs in the future.

4.3. 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:

1) because it is used and therefore important for its holder;
2) 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.);
3) because it corresponds to a brand that the holder wants to protect (defensive domain registration);
4) 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.

5. ccTLDs (country-code Top-Level Domains)

ccTLDs as a whole grew by 4.8% in 2019 compared with 4.0% in 2018. But these very similar figures do not reflect the dynamics of this segment, which saw its growth rate increase to nearly 10% in Q3 2019 before plummeting downward towards year-end.

5.1. Regional differences in dynamics steady over time

The study of regional dynamics shows that while the situations differ from one geographic area to another, they are fairly constant over time.

North America is slowly losing stock and market share. Latin America and Africa are growing, but volumes remain too low for the market share of these two regions to increase rapidly.

Asia-Pacific continues to develop, with a growth rate in double digits in 2019 as in 2018, taking nearly 2 points in market share and currently accounting for one third of names registered in ccTLDs.

Lastly, Europe is following the same dynamic as North America, but starting from a much higher level. Accordingly, it still accounts for more than 50% of the names registered in ccTLDs, but its growth dynamic is far from rivalling that of Asia-Pacific.

Data excl.	**Stock (millions)**			**Variations (%)**		**Market share (%)**			
"Penny" ccTLDs	**2017**	**2018**	**2019**	**2018**	**2019**	**2017**	**2018**	**2019**	**19/18**
North America	4.8	4.9	4.6	0.9%	-5.2%	4.0%	3.9%	3.5%	-0.4
Latin America	7.7	8.2	8.6	5.9%	5.0%	6.3%	6.5%	6.5%	-
Africa	1.8	2.1	2.2	15.1%	6.1%	1.5%	1.6%	1.7%	-
Asia-Pacific	35.3	39.4	43.7	11.5%	11.0%	29.0%	31.2%	33.1%	+1.9
Europe	72.2	71.7	73.0	-0.7%	1.8%	59.3%	56.8%	55.3%	-1.5
TOTAL	**121.9**	**126.2**	**131.6**	**3.5%**	**4.7%**	**-**	**-**	**-**	**-**

We will now highlight, for each region, the most relevant variations and thus show the extent to which the market "depends" on a small number of TLDs in each segment, Legacy TLDs, ccTLDs and nTLDs.

North America	**Stock (millions)**		**Var. (%)**	**Var. (M)**
	2018	**2019**	**2019**	**2019**
.CA	2.8	2.8	+1.1%	-
.US	2.0	1.8	-13.8%	-0.2
Others	0	0	+1.0%	-
TOTAL	**4.8**	**4.6**	**-5.2%**	**-0.2**

The leading ccTLD in North America is the .CA (Canada) with its 2.8 million names, but this domain was highly stable in 2019. The variations in the region were thus essentially due to .US (United States).

Africa	Stock (millions)		Var. (%)	Var. (M)
	2018	2019	2019	2019
.ZA (South Africa)	1.1	1.2	+3.4%	+0.1
.IO[2] (British Indian Ocean Terr.)	0.4	0.5	+16.7%	+0.1
Others	0.5	0.5	+3.0%	-
TOTAL	2.1	2.2	+6.1%	+0.1

The uncontested leader in the African region is the .ZA (South Africa), followed by the .IO (British Indian Ocean Territory). The .IO however, forms part of the "quasi-ccTLDs", in other words it is sold as a generic TLDs, the more so as there are no longer any inhabitants in the territory concerned. All the other African ccTLDs present fairly low volumes, averaging 15,000 names per ccTLD, and the variations are marginal.

Latin America & Caribbean	Stock (millions)		Var. (%)	Var. (M)
	2018	2019	2019	2019
.BR (Brazil)	3.4	3.5	+3.9%	+0.1
.CO (Colombia)	2.2	2.3	+5.5%	+0.1
.MX (Mexico)	1.1	1.2	+11.1%	+0.1
Others	1.5	1.6	+2.2%	+0.1
TOTAL	8.2	8.6	+5.0%	+0.4

The three leading ccTLDs in the Latin America and Caribbean region are the .BR (Brazil), the .CO (Colombia) and the .MX (Mexico). However, the .CO is also a "quasi-gTLD" since it is sold as an alternative to the .COM (and so far has not obtained the success hoped for compared with the 149 million .COM). The variations are also rather low in absolute value, although in percentages they can sometimes be significant, as in the case of the .MX.

Asia-Pacific	Stock (millions)		Var. (%)	Var. (M)
	2018	2019	2019	2019
.CN (China)	20.4	25.9	+26.8%	+5.5
.IN (India)	2.0	2.1	+7.5%	+0.1
.NU (Niue)	0.4	0.3	-34.0%	-0.1
.KR (South Korea)	1.4	1.1	-16.6%	-0.2
.TW (Taiwan)	4.8	3.6	-25.4%	-1.2
Others	10.5	10.8	+2.8%	+0.3
TOTAL	39.4	43.7	+11.0%	+4.3

The ccTLD with the greatest weight in Asia-Pacific is incontestably the .CN (China), variations in which, positive or negative depending on the year, turbocharge or crush the performances of the region as a whole. The "worst" variation is that of the .TW, but this comes as no surprise since it follows a period of euphoria in which this ccTLD gained more than four million names in 2018. The purge has therefore not

2This year we have reincorporated the .IO into the African ccTLDs, whereas last year it was considered as a "penny TLD" and excluded from the calculations. We take this opportunity to thank Mr Francisco Cettaro (Domainsbot) for the remarks that he was kind enough to make on several points in our Global Domain Name Market in 2018, the classification of the .IO being one of them. Mr Cettaro pointed out that the high prices of the .IO preclude it from being classed as a "penny TLD". The figures have all been restated for the previous years, without this causing the indicators presented to vary appreciably.

yet been completed. Apart from the two big changes, the variations posted are relatively small in absolute terms, although they can be considerable in percentage terms. The .NU (Niue) notably lost 34% of its stock, but this is a “quasi-gTLD” sold mainly in Sweden and its dynamics therefore do not reflect those of the Asia-Pacific region.

Europe	**Stock (millions)**		**Var. (%)**	**Var. (M)**
	2018	**2019**	**2019**	**2019**
.UK (United Kingdom)	12.0	13.0	+8.7%	+1.0
.FR (France)	3.3	3.4	+3.7%	+0.1
.PT (Portugal)	1.1	1.2	+11.3%	+0.1
.DE (Germany)	16.2	16.3	+0.7%	+0.1
.RO (Romania)	0.7	0.6	-14.6%	-0.1
.SE (Sweden)	1.7	1.5	-9.8%	-0.2
Others	36.7	36.9	+0.5%	+0.2
TOTAL	**71.7**	**73.0**	**+1.8%**	**+1.3**

Europe is the region with the biggest number of large-volume ccTLDs, as shown in the above table. Its two leaders in volume are the .DE (Germany) and the .UK (United Kingdom), but in terms of variations it was above all the .UK that was significant in 2019. The other variations remain moderate in absolute value, while proving fairly substantial in percentage terms for the .RO (Romania) and the .SE (Sweden).

From all these data from all the regions studied, only three ccTLDs posted variations of more than one million names (.CN and .UK positive and .TW negative). The data provided for the other ccTLDs with variations of more than 100,000 names show that they too are few in number and that their situations are disparate. This market is therefore deceptive on two levels: on the one hand its substantial variations are due to a few exceptional phenomena; and on the other hand the relatively flat performance observed on average for the rest of the ccTLDs conceals significant movements which, however, tend to cancel one another out as they are in contrary directions.

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 format, that is to say in non-ASCII characters, generally have confidential or zero volumes, with the notable exception of the .РФ (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**	**LAC**	**AP**	**EU**	**NA**	**Total**	**%**
1 million or more	1	3	7	15	2	**28**	**11%**
500,001 to 1 million	1	-	3	6	-	**10**	**4%**
100,001 to 500,000	1	3	11	13	-	**28**	**11%**
50,001 to 100,000	2	3	7	3	-	**15**	**6%**
25,001 to 50,000	4	2	5	2	-	**13**	**5%**
10,001 to 25,000	4	8	9	6	-	**27**	**11%**
5,001 to 10,000	15	7	5	1	2	**30**	**12%**
5,000 or fewer	30	26	32	9	1	**98**	**39%**
TOTAL	**58**	**52**	**79**	**55**	**5**	**249**	

Breakdown of ccTLDs by volume bracket

This table clearly shows the inequality among regions, with Europe accounting for more than 50% of ccTLDs with more than a million names and only 9% of those with fewer than 5,000 names. We will

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

5.2. Weight of quasi-gTLDs and penny ccTLDs

To avoid bias due to their high volatility, we have excluded from our global tracking the "penny ccTLDs" made specific by 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, subject to an inventory, are the .CC (Cocos Islands), .CF (Central African Republic), .GA (Gabon), .GQ (Equatorial Guinea), .ML (Mali), .PW (Palau), and .TK (Tokelau). No others emerged in 2019.

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 other hand, 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)[3], and .LA (Laos - "Los Angeles"). We have added the .VC (Saint Vincent and the Grenadines - "Venture Capitalist").

If we make a distinction between the 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
ccTLDs	**Stock**	**113.8**	**117.3**	**121.7**	**127.5**
	Variation	*7.5*	*3.5*	*4.4*	*5.8*
	Var. (%)	*7%*	*3%*	*4%*	*5%*
Quasi-gTLDs	**Stock**	**4.5**	**4.6**	**4.5**	**4.6**
	Variation	*0.4*	*0.1*	*-0.1*	*0.1*
	Var. (%)	*11%*	*1%*	*-1%*	*3%*
Penny ccTLDs	**Stock**	**22.9**	**24.9**	**31.3**	**48.6**
	Variation	*-7.7*	*2.0*	*6.4*	*17.3*
	Var. (%)	*-25%*	*9%*	*26%*	*55%*
TOTAL	**Stock**	**141.2**	**146.7**	**157.5**	**180.6**
	Variation	*0.1*	*5.6*	*10.8*	*23.1*
	Var. (%)	*0%*	*4%*	*7%*	*15%*

The salient fact seems to be the stability of the "quasi-gTLDs" over the past three years, a period which saw continuous growth of ccTLDs and an explosion of penny ccTLDs, particularly in 2019.

It is therefore probable that the owners, having previously bet on quasi-TLDs, have moved into nTLDs (or penny ccTLDs) and that in any case the attraction of a country TLDs used for generic purposes raises more and more doubts.

A striking illustration of this is the .CO (Colombia), sold in the USA as an alternative to the .COM and supported by GoDaddy, the world's leading registrar, and by Google which announced several years ago that it considered the .CO as a gTLD. Despite this first-class support, the TLD has remained at

[3]The .IO was reclassified among "quasi-gTLDs" in 2019 and the figures for 2016-2018 were recalculated accordingly.

2 million names while the .COM has nearly 150 million. Clearly, users have not been convinced, preferring to stay loyal to the .COM.

Penny-ccTLDs saw their stock increase even more sharply than in 2018 (55%), but this should necessarily be interpreted as an improvement for this segment, which is subject to high volatility. This is why we have excluded them from our market trend analyses, although in 2019 they accounted for nearly 75% of the net change in all types of ccTLDs combined.

Penny ccTLDs are found only in Africa and Asia-Pacific, as shown in the table below.

Data	**Stock (millions)**			**Variations (%)**		**Proportion of penny TLDs (%)**			
Penny ccTLDs	**2017**	**2018**	**2019**	**2018**	**2019**	**2017**	**2018**	**2019**	**19/18**
Africa	3.9	8.3	19.6	110%	135%	16%	27%	40%	+13
Asia-Pacific	20.9	23.0	29.0	10%	26%	84%	73%	60%	-13
TOTAL	**24.9**	**31.3**	**48.6**	**26%**	**55%**	**-**	**-**	**-**	**-**

Although Asia-Pacific dominates thanks to the .TK, it is Africa that enjoyed the strongest growth dynamic among these TLDs, the use of which is problematic. These domain names most often point to content generated automatically in order to capture traffic by taking advantage of the law of large numbers.

The question that arises is therefore how long these bubbles will last before bursting, due to the loss of interest among those who use them to create cheap addresses on the fly, but who will not continue to do so if prices increase or other more attractive opportunities appear. Nor is it impossible that the governments of the countries concerned eventually tire of seeing their national TLDs used for dubious purposes and take things in hand in the medium term. One final factor: the existence of black lists maintained by organisations such as SPAMHAUS obliges dishonest players to change domain names and TLDs regularly.

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

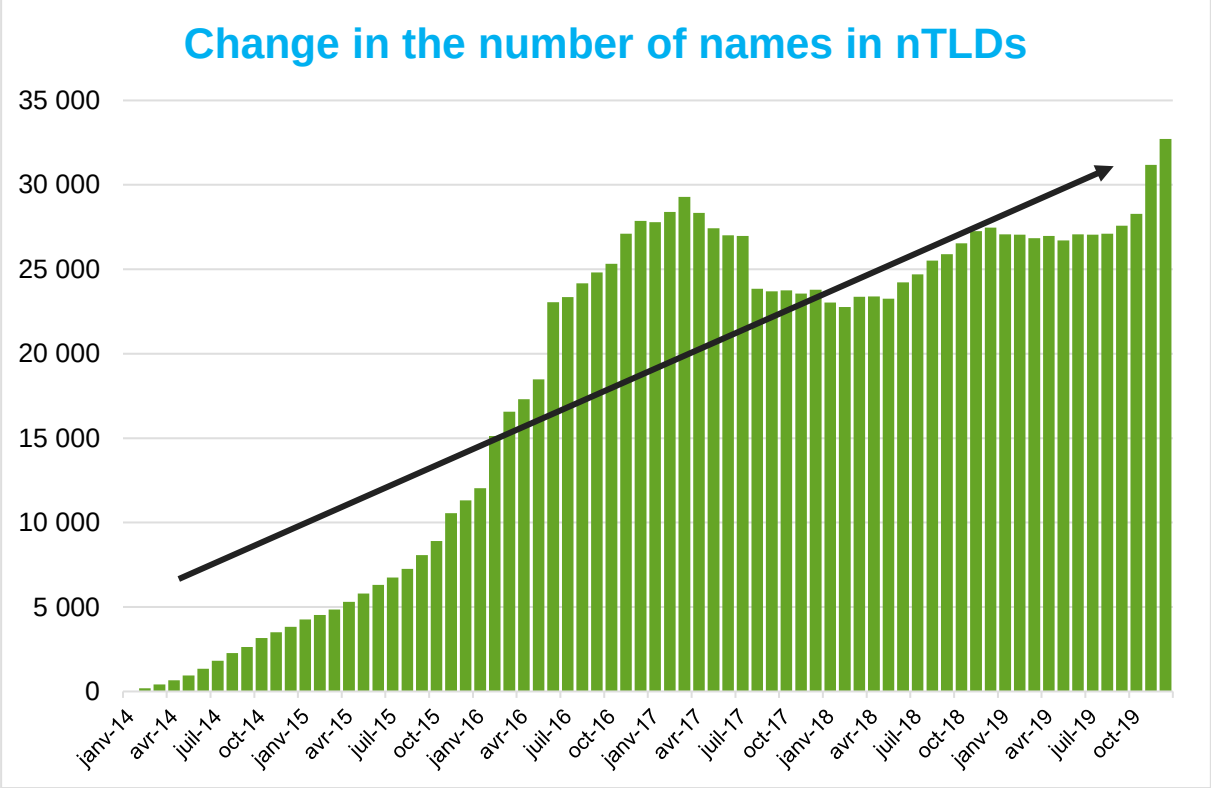
It should be recalled that the only thing new Top-Level Domains often have in common is that they are "new". This is not enough to classify them, since this characteristic will disappear over time (and of course at the next ICANN round). All too often, observers refer to the success or failure of new 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.

For all that, if we consider that 4.5 million names are exclusively due to the .ICU, the stock should settle at around 28.2 million names. From this point of view, the phase of stability seen since January 2019 continued until December.



nTLDs are rather like a life-size laboratory for exploring the resources of the domain name market. 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. In the long term (2014-2019), we can see graphically that at the end of 2019 the stock of nTLDs joined the straight line trend started in 2014-2015 after seeing an exponential curve in 2016-2017, followed by a correction (2017-2018) and a period of stagnation (2018-2019).

This phenomenon is worrying, 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 registrations reserved for members of a community, and if applicable, with 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 (8), but the volumes registered make this a fully-fledged segment, comparable with that of generic TLDs. This segment appears for the first time in this 2019 Report, the figures having been restated for previous years.

Our nTLD segmentation attempts to reflect the purpose of TLDs rather than their ICANN status, since the latter 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 complexity factor is the degree of restriction required by each registry. Access to a .BRAND 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 .BRANDs 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 it remains susceptible to change, as shown by the appearance in 2018 of a handful of .BRANDs with very high volumes, identified in 2019 under the term “open .BRANDs”.

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	
	2018	2019	Var. abs	Var.	2018	2019	Var.	% R. 2019	% R. 2018
Generic	25,289	24,988	-301	-1%	16,972	16,005	-6%	41%	37%
Geographic	1,038	987	-51	-5%	196	162	-18%	87%	83%
Open brands	1,024	6,647	5,623	549%	897	5,765	543%	85%	73%
Community	63	50	-13	-20%	3	3	5%	71%	40%
Brands	45	49	+4	8%	16	10	-34%	88%	87%
TOTAL	**27,458**	**32,721**	**5,263**	**19%**	**18,090**	**21,946**	**21%**	**44%**	**39%**

The correction observed in Community TLDs in 2018 continued in 2019, still due to the .PYC (“Russian”), which lost 28% of its stock while remaining the most important TLD in the segment with 33,000 names.

The small volume of these TLDs (12 in our classification) shows that the strict eligibility conditions do not facilitate their adoption. In many cases, promoters of nTLDs have sought to create value by means of the “scarcity” or exclusive nature of the names attributed, but in general these measures lead to high prices and complex registration procedures which are not offset by the value perceived by users. Many TLDs were launched with this “value” approach and, after a few years, were forced to relax their rules in order to survive. The Community segment, however, seems to be on the way to seeing better days, its creations having grown by 5% in 2019 and its retention rate having risen to 71% from 40% in 2018.

The geographic TLDs lost 5% of their stock which, while not substantial, results from a worrying situation. Indeed, most of the nTLDs in this segment did not resort to aggressive marketing policies after their launch period. The segment’s retention rate of 87% bears witness to this. However, in 2019, create operations decreased (-18%) to such an extent that even the excellent retention rate could not prevent a decline in stock. So it is as though, overall, these nTLDs were less in demand and relied increasingly, after just six years of existence, on the names already acquired. The biggest variations in this segment (5,000 names or more) are (in thousands of names): .AFRICA (+5), .BERLIN (-5), .MIAMI (-6), .BOSTON (-9) and .LONDON (-19).

Generic TLDs now represent “only” 77% of nTLDs registered as against 92% in 2018, as a result of the explosion in open .BRANDs. However, this segment lost only 1% of its stock, following a trend fairly close to that of the Geographic TLDs: a fall in create operations (-6%) and a slight improvement in the retention rate (+4 pp) which remains at just half the level of the other segments. The big winner of 2019 in this segment was the .SITE with 1.1 million additional names, while the big loser was the .LOAN, which lost 2.2 million names, i.e. 99% of its start-of-year stock. The other variations were fewer than 1 million names (details of the performances of the main nTLDs are given later).

In 2019, we split the .BRAND segment into two new segments. First of all the “closed” .BRANDs corresponding to the traditional acceptance of the notion of .BRAND (use on holder’s own behalf). Then the “open” .BRANDs, the dynamics of which are very different to those of the former. Here the holder uses its .BRAND by opening it up to third parties in accordance with procedures at its discretion. We

identified eight open .BRANDs in 2019: .APP, .DEV, .FUN, .ICU, .ONE, .OVH, .PAGE, .REALESTATE. This list will naturally evolve, and is proposed only subject to inventory.

The classic .BRANDs grew by 8% in 2019, create operations falling by 34% but offset by a very high retention rate (88%) which improved slightly (+1 pp).

In contrast, the open .BRANDs saw explosive growth in 2019, essentially due to the .ICU which gained 4.6 million names, accounting for the bulk of the growth of this segment and of all nTLDs together. Their retention rate improved considerably, testimony to a tendency to loyalty on the part of these domain name holders.

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

	Number in					Variations (net balance)			
	2015	2016	2017	2018	2019	2016	2017	2018	2019
Community	12	12	12	12	12	-	-	-	-
Geographic	58	61	63	63	62	+3	+2	-	-1
Generic	456	480	490	500	502	+24	+10	+10	+2
Brands	310	593	623	615	591	+283	+30	-8	-24
Open brands	6	9	9	9	8	-	-	-	-1
TOTAL	**842**	**1,155**	**1,197**	**1,199**	**1,175**	**313**	**42**	**2**	**-24**

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, which were essentially .BRAND domains abandoned by their holders.

Since this segment obeys specific dynamics, it is impossible to deduce from these delete operations that they were consecutive to "commercial failures". They are more likely to be reorientations in the digital strategies of the groups concerned, changes of flagship brands making the .BRANDs concerned obsolete, or simply defensive create operations from the beginning that their delegatees do not want to continue to finance, because they do not know how to use them.

In 2018/2019, a new phenomenon appeared, the conversion of .BRAND to generic after sale by their initial delegatee, as already described. This is the explanation of the “+2” among the generics despite their being no create operations in 2019. However, these cases are still very few in number, abandonment of nTLDs being rather the norm, with 24 deletions, 22 of where were .BRAND.

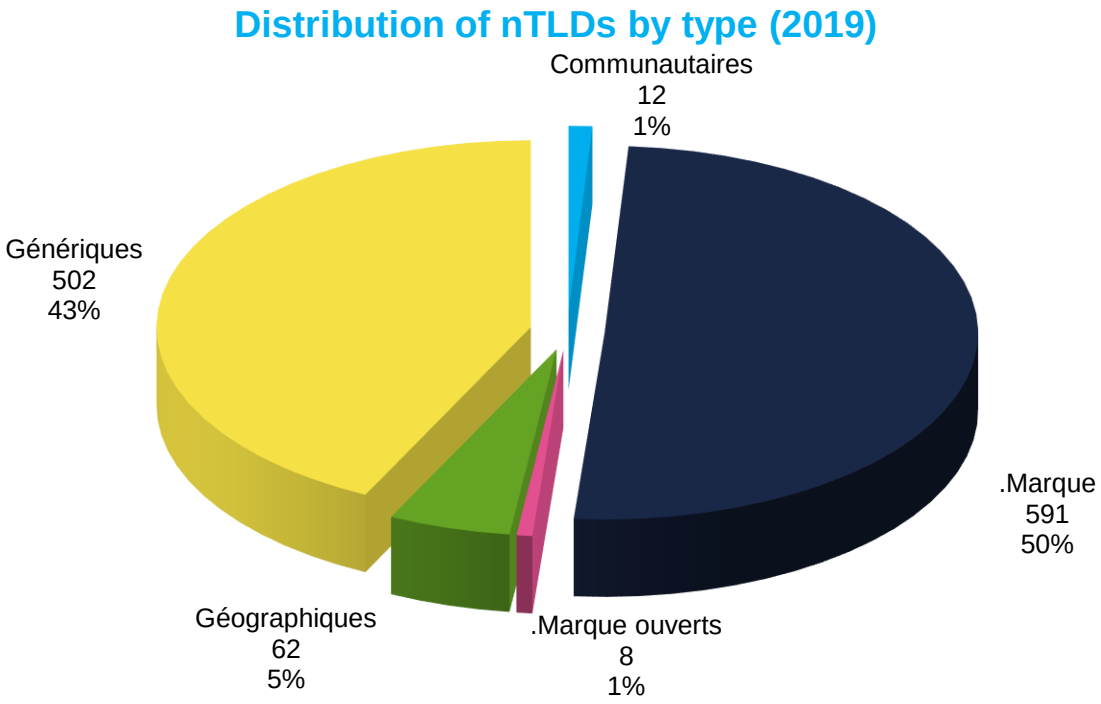
This trend will no doubt continue in 2020/2021, for two reasons:

- On the one hand, the proportion of .BRAND names 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.
- On the other hand, a significant percentage of the “Generics” 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.

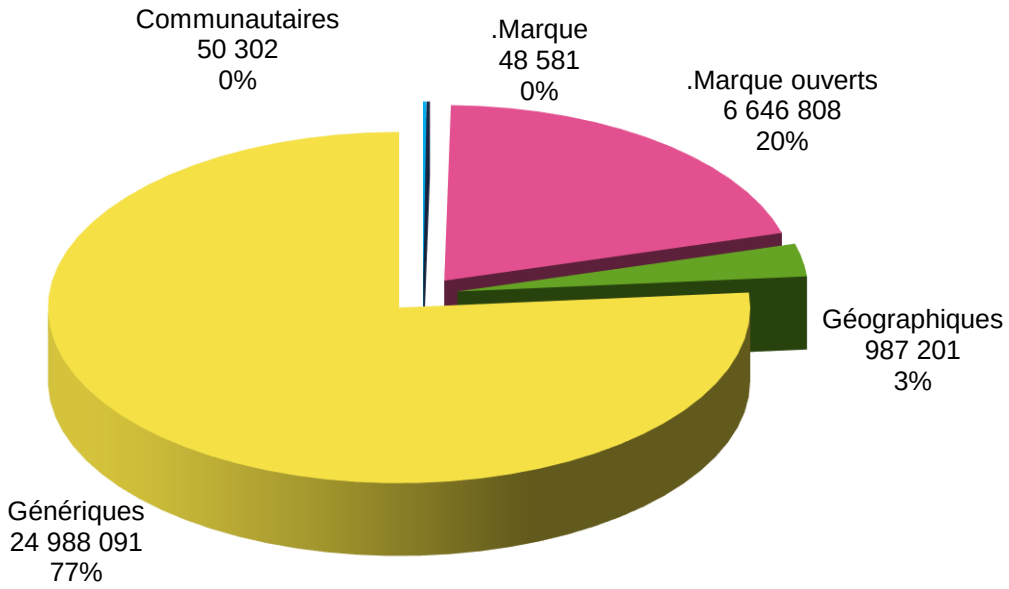
It is noticeable that ICANN, having put draconian rules in place when the first applications to convert .BRANDs to generic TLDs appeared, has since been rather tolerant towards converted .BRANDs. No doubt it wishes to avoid as far as possible excessive haemorrhaging of nTLDs, which would be a sign of partial failure of the process as carried out in 2012-2014.

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 graphs below. With 502 TLDs (43% of the total), generic TLDs represent 77% of domain name registrations; with 591 TLDs (50% of the total), .BRAND represents only a marginal percentage of names registered. Conversely, the eight open .BRAND names account for 20% of the total stock.



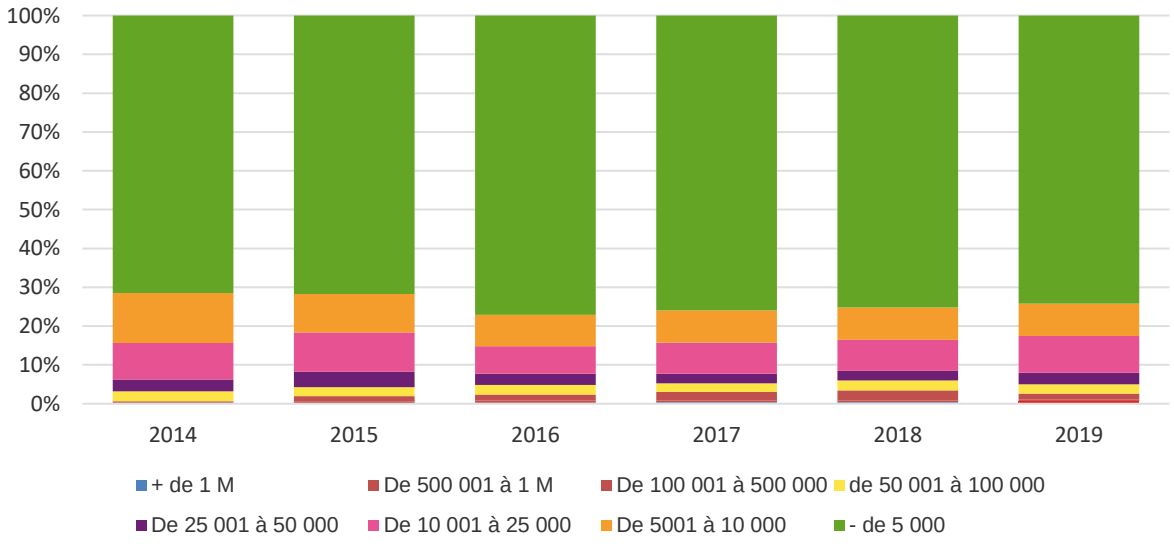
Distribution of nTLDs by volume (2019)



These two diagrams suffice to illustrate the variety of economic 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 brackets. We can see that the “Less than 5,000 names” bracket represents 74% of the total, while the “More than 500,000” bracket represents only 1%, these proportions not having varied appreciably since 2014.

Changes in the breakdown of nTLDs by volume bracket (2014-2019)



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 hypothetical average budget of $100,000 a year, it can be seen that the equilibrium threshold 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**	**%**
1 million or more	-	-	7	1	-	**8**	**1%**
500,001 to 1 million	-	-	3	2	-	**5**	**0%**
100,001 to 500,000	-	1	16	1	-	**18**	**2%**
50,001 to 100,000	-	5	20	3	-	**28**	**2%**
25,001 to 50,000	1	4	30	-	-	**35**	**3%**
10,001 to 25,000	-	15	95	1	-	**111**	**9%**
5,001 to 10,000	-	15	81	-	2	**98**	**8%**
5,000 or fewer	11	22	250	-	589	**872**	**74%**
TOTAL	**12**	**62**	**502**	**8**	**591**	**1,175**	
% <10,000 names	**92%**	**60%**	**66%**	**0%**	**100%**	**83%**	

Breakdown of nTLDs by type and by volume brackets as at 31/12/19
(nTLDs having at least 1 name in stock)

Excluding .BRAND names which obey very different forms of logic and objectives, we obtain 283 TLDs of less than 5,000 names (or 49% of TLDs excluding .BRAND compared with 50% in 2018) and 379 TLDs with less than 10,000 names (65% of TLDs excluding .BRAND, compared with 66% in 2018).

A still significant portion (2/3) of nTLDs excluding .BRAND thus remains financially fragile, and the situation is improving only very slowly.

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 1 million domain names “sold” for 1 cent each only generate $10,000 in fact, 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 is an almost caricature illustration of this phenomenon and of a misplaced bet.

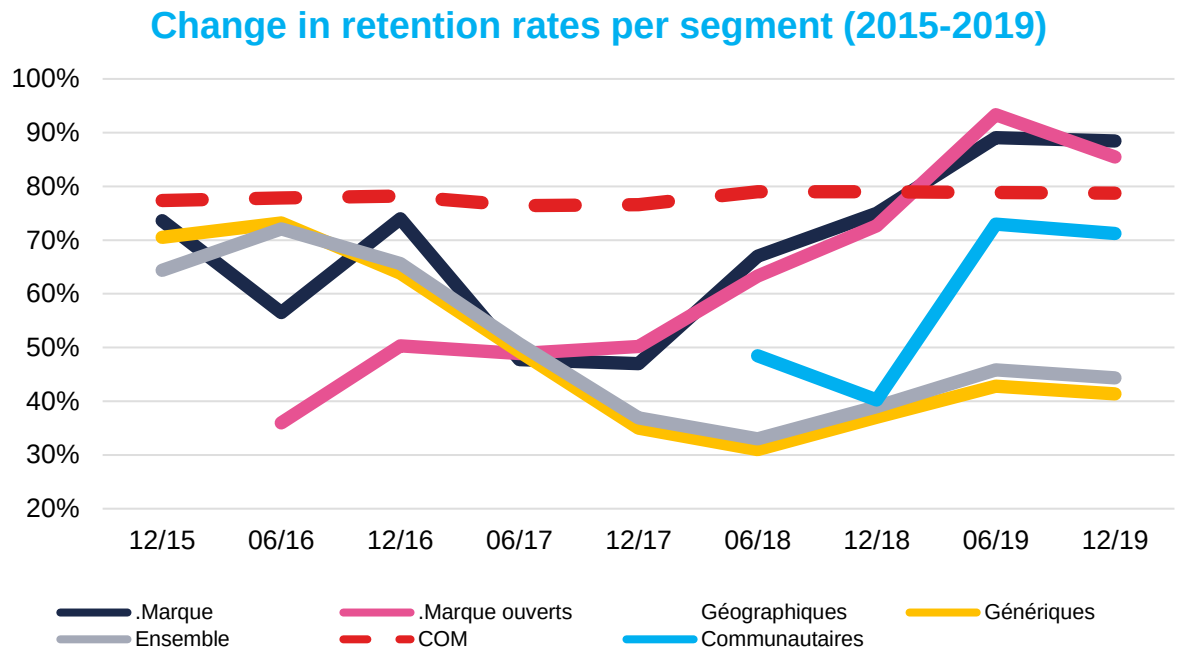
These elements should encourage ICANN to rethink its price policy with regard to registries of new TLDs, especially with a view to a second round. For most open nTLDs, its fixed fees of US$25,000 constitute too heavy a burden, which prevents them from developing and sometimes even causes them to suffocate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

6.5. Change in retention rates[4] 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 Generics rate is the lowest, tending to stabilise at around 40% in 2019. But this rate remains an average, as we shall soon see.

After an appreciable purge in 2017, the .BRAND rate is currently approaching 90%. As for the Geographic TLDs, they are very close to the level of the .BRAND TLDs, as are the "open" .BRAND TLDs, an interesting segment in that it seems to combine the sales dynamic of the Generics with the owner loyalty of the Geographic TLDs. This could change in 2020/2021 however, when the millions of .ICU names expire.



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

The various nTLD segments therefore present strongly contrasting dynamics. In response to the possibly excessive dynamic of the Generics and open .BRANDs, create operations in the other segments show a certain flatness combined with high retention rates.

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

[4]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. A name registered for five years will be "retained" for five consecutive years and renewed once, on its expiry.

6.6. The Penny TLD phenomenon

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.

We make no value judgement of this category of TLDs by calling them “penny TLDs”: this simply reflects the low-cost strategy adopted by the registries.

This phenomenon also exists in the nTLDs, and we have conducted a study this year to try to isolate those of the nTLDs that best match the profile in order to quantify the phenomenon.

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 as at 31/12/19 (launched before 31/12/16 and still in existence at 31/12/19) so as to avoid as far as possible the “side effects” associated with the opening phases, which usually see high creation rates5 combined with relatively low retention rates6 in the following year. This approach excludes, for example, the.ICU, which saw very large numbers of creations in 2019, though it is unclear what proportion of these names will be retained in 2020. It also excludes .BRAND domain names, 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 31/12/16. 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 would see its creation rate decrease as stock increased and the retention rate increase in relation to how long ago the name had been registered. These values will stabilise after a certain time, provided that no isolated incidents (promotional campaigns, domaining waves, etc.) occur to disrupt them.

But what relevant thresholds are used to describe the situation of a given TLD? A quantitative analysis performed on all nTLDs that met our criteria (launched prior to 31/12/16, stock of 200 names minimum at this date) enabled us to determine the following thresholds, which we consider to be the most relevant.

a) **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 positioning their category of nTLD relative to the whole. Thus, 69% of Geographic TLDs have a retention rate of 76% or more, as against just 41% for Generic TLDs (and this taking account only of the TLDs themselves, not of the volume of domain names registered in each of them).

[5] Creation rate: total number of creations over the last 12 months/stock
[6] Retention rate: (Stock - creations over the last 12 months) / Stock 12 months earlier

Rate brackets	% COMM	% Geos	% GEN	% OBR	Total	%
86% and over	1	21	31	-	**53**	**11%**
76% to 85%	2	14	133	-	**149**	**32%**
66% to 75%	4	7	138	2	**151**	**33%**
51% to 65%	-	7	51	-	**58**	**13%**
50% and under	-	2	51	-	**53**	**11%**
TOTAL	7	51	404	2	464	

Breakdown of generic TLDs (Legacy and nTLDs) by retention rate
nTLDs excluding .BRAND having had more than 200 names in stock at 31/12/16

Account was taken of 7 community nTLDs, 51 geographic nTLDs, 404 generic nTLDs and 2 ".open BRANDs". The thresholds are consistent with what we had already 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 (the .PL (Poland) ccTLD is an example of such a scenario).

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. In principle, our penny nTLDs should be among the 51 TLDs of this last category.

b) 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	% Geos	% GEN	% OBR	Total	%
51% and over	-	1	39	-	**40**	**9%**
36% to 50%	-	4	71	-	**75**	**16%**
26% to 35%	2	3	112	2	**119**	**26%**
16% to 25%	3	20	106	-	**129**	**28%**
15% and under	2	23	76	-	**101**	**22%**
TOTAL	7	51	404	2	464	

Breakdown of generic TLDs (Legacy TLDs and nTLDs) by creation rate
nTLDs excluding .BRAND having had more than 200 names in stock at 31/12/16

The “normal” (cruising speed) value could 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.

Conversely, creation rates of over 51% mean that in a given portfolio and at a given date more than 1 name in 2 has been registered over the course of the past 12 months. 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.

We should therefore look for our penny TLDs among the 40 domains with a creation rate of over 51%.

c) Identification of “penny nTLDs”

Our hypothesis was based on the assumption that we would find these low-cost TLDs 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 more	Total	%
86% and over	**40**	10	2	-	1	53	11%
76% to 85%	34	**70**	34	6	5	149	32%
66% to 75%	15	31	**67**	30	8	151	33%
51% to 65%	5	7	10	**30**	6	60	13%
50% and under	7	11	6	9	**20**	51	11%
TOTAL	101	129	119	75	40	464	
%	22%	28%	26%	16%	9%		

Breakdown of generic TLDs (Legacy TLDs and nTLDs) by creation rate
nTLDs excluding .BRAND having had more than 200 names in stock at 31/12/16
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 seven TLDs meet this dual requirement, 2% of the total.

We also see an interesting visual phenomenon: 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, while at the same time validating our model. 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. The 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.

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 more	Total	%
86% and over	**523**	45	18	-	7	593	2%
76% to 85%	292	**684**	358	32	134	1,500	6%
66% to 75%	184	361	**1,183**	673	1,995	4,397	17%
51% to 65%	58	30	50	**1,003**	1,340	2,481	10%
50% and under	165	388	102	544	**15,807**	17,006	65%
TOTAL	1,222	1,509	1,710	2,252	19,283	25,977	
%	5%	6%	7%	9%	74%		

Breakdown of generic TLDs (Legacy TLDs and nTLDs) by creation rate
nTLDs excluding .BRAND having had more than 200 names in stock at 31/12/16
X-axis: Creation rate; Y-axis: Retention rate

The total number of names shown as registered here is 26 million, compared with a grand total of 32.7 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 6.7 million difference, the .ICU 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 1% of the total number studied.

What about the "penny TLDs"? At the intersection of the two criteria of our selection (creation rate 51% or more and retention rate 50% or less), we find 20 generic nTLDs of the 464 studied, 4% of the total. But these 4% represent, in volume terms, 61% of the domain names considered and 48% of the total number of names registered in generic nTLDs.

This implies that around 25% (48% x 50%) of the names registered in nTLDs are likely to disappear next year, without even taking account of the domain names 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. The reality is that these significant variations are determined by just a handful of TLDs, which our study has allowed us to isolate.

Our approach has been validated by the list of 20 nTLDs identified (based on ICANN data from December 2019), including the .XYZ, .TOP, .SITE and .CLUB TLDs, which are among the Top 10 nTLDs and are known for adopting low-cost approaches (without necessarily going as far as being almost free of charge).

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

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 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.

For example, we researched the .WANG, which was notoriously one of the low-cost TLDs in the years 2017-2018. In June 2019, its creation rate (calculated over the previous 12 months) was 19% and its retention rate 31%. This was a typical case of exiting a low-cost strategy: creations became less common and renewals continued to suffer from the volatility of registrations made while the low-cost strategy was still in force, leading to a significant purge in stock (-62% between June 2018 and June 2019). The registry seems to have reacted in the second half of 2019 by conducting a new promotional campaign, the data at the end of December having risen to 91% for the creation rate and 60% for the retention rate. There can be little doubt that in 2020 the .WANG will again see a rather low retention rate, while its creation rate will return to more modest levels.

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 make a few observations here about 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.

a) 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.

Expected volume	Envisaged tariff levels			
	N/A	Low	Moderate	High
Strong	-	[GEO] GEN (broad) Open .BRAND	-	-
Average	-	-	GEO [COMMUNITY] [GEN (limited)] GEN (broad) Open .BRAND	-
Weak	.BRAND	-	-	COMMUNITY GEO GEN (limited] GEN (broad) Open .BRANDs

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.

b) 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.

c) Exclusive TLDs versus Mass TLDs

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.

d) 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.

e) Rights 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.

f) 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.

g) “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 on 31/12 of any year since 2014.

These leaders are largely TLDs marketed using aggressive, not to say low-cost, marketing strategies. But they are nevertheless important to study in order to understand, or to shore up by specific example, some of the mechanisms of market operation explained above. The table below highlights the fact that the 17 TLDs selected alone accounted for 70% of the 1,175 nTLD names registered at 31/12/19 and 80% of the names created during the past year.

The stocks of the two categories, whether in the sample group or not, followed sharply different trends in 2019. Whereas the leaders gained 35% (thanks in particular to the .ICU), the other nTLDs lost 7% of their stock. The contrast is even starker for create operations, with changes of +35% and -14% respectively. However, there is a notable difference when we come to retention rates: 32% for the leaders as against 52% for the non-sample group nTLDs.

	Stocks (thousands)				Create operations (thousands)			% Retention	
	2018	2019	Var. abs.	Var.	2018	2019	Var.	2018	2019
.ICU	**290**	**4,923**	4,633	1,599%	*285*	*4,608*	*1,514%*	**-**	**-**
.TOP	**3,957**	**3,733**	-224	-6%	*3,402*	*3,043*	*-11%*	**26%**	**17%**
.XYZ	**2,305**	**2,930**	625	27%	*1,633*	*2,086*	*28%*	**25%**	**36%**
.SITE	**959**	**2,036**	1,077	112%	*789*	*1,569*	*99%*	**32%**	**49%**
.CLUB	**1,681**	**1,579**	-102	-6%	*1,319*	*1,041*	*-21%*	**30%**	**32%**
.ONLINE	**1,154**	**1,458**	304	26%	*871*	*916*	*5%*	**37%**	**47%**
.VIP	**852**	**1,421**	569	67%	*124*	*847*	*582%*	**80%**	**67%**
.WANG	**157**	**1,046**	889	568%	*33*	*952*	*2,744%*	**20%**	**60%**
.APP	**361**	**743**	382	106%	*354*	*382*	*8%*	**-**	**100%**
.LIVE	**269**	**730**	461	171%	*168*	*609*	*263%*	**73%**	**45%**
.SHOP	**663**	**690**	27	4%	*470*	*472*	*0%*	**37%**	**33%**
.WORK	**534**	**677**	143	27%	*473*	*502*	*6%*	**35%**	**33%**
.FUN	**209**	**586**	377	180%	*171*	*504*	*195%*	**67%**	**39%**
.LTD	**627**	**266**	-361	-58%	*426*	*45*	*-89%*	**58%**	**35%**
.WIN	**462**	**80**	-382	-83%	*215*	*12*	*-94%*	**24%**	**15%**
.BID	**242**	**28**	-214	-88%	*155*	*6*	*-96%*	**18%**	**9%**
.LOAN	**2,219**	**24**	-2,195	-99%	*2,135*	*3*	*-100%*	**4%**	**1%**
Total Top 500K	**16,939**	**22,939**	**6,000**	35%	***13,024***	***17,596***	***35%***	**28%**	**32%**
Others	**10,519**	**9,782**	**-737**	-7%	***5,066***	***4,350***	***-14%***	**56%**	**52%**
Total nTLDs	**27,458**	**32,721**	**5,263**	**19%**	***18,090***	***21,946***	***21%***	**39%**	**39%**
% Top 500K / total nTLDs	***62%***	***70%***	***88%***		***72%***	***80%***			

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 2019:.APP, .FUN, .ICU, .LIVE

In looking at these 17 leaders, are we perhaps failing to see the wood for the trees, in that their expansion hides the deteriorating situation of numerous small and medium volume nTLDs?

Well, perhaps, but the leaders themselves do not constitute a homogeneous group. As shown in the table, averages are very deceiving and there is little in common between a .VIP with a good retention rate and a .LOAN whose retention rate has fallen to 1%.

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

Four of them have both creation and retention rates above the average for nTLDs. Four others show poor creation rates but above-average renewal rates (this applies also to nTLDs not in the sample group). Three more have good creation rates, no doubt as a result of low-cost operations. Lastly, five have 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 .FUN .ONLINE .VIP Others (Outside sample group)	.LIVE .SITE .WANG .WORK
Retention rate < average nTLDs	.BID .CLUB .LOAN .LTD .WIN	.SHOP .TOP .XYZ

(Excluding .ICU)

The nTLD segment therefore still needs to be analysed by putting into proper perspective the impact of the leaders, who 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.

For 2019, as for 2018 and 2017, the findings revealed by the above table contradict 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 2019

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.[7]

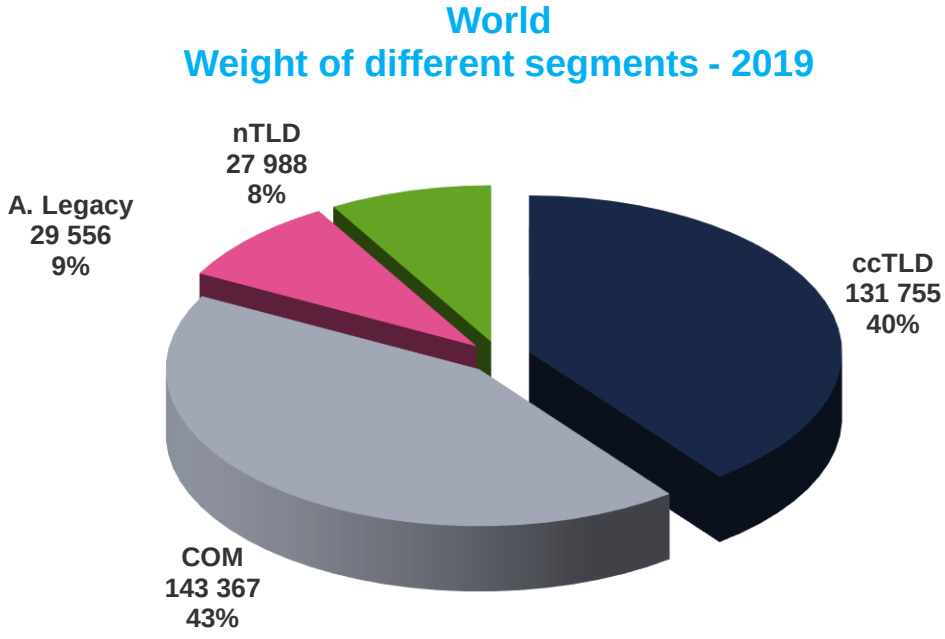
By convention, we have used the ICANN regional nomenclature for reference, even though it can sometimes be open to discussion.

In 2017, we focused on presenting, for each major segment of domain names (.COM, Other Legacy TLDs, ccTLDs and nTLDs), the proportion of the various ICANN regions. This approach highlighted North America's weight for .COM and Other Legacy TLDs, Europe's for ccTLDs, and Asia-Pacific's for nTLDs.

In 2018, we presented the opposite view, that is, the proportion of each major segment in the various ICANN regions. This approach seems to us more pertinent than the previous one for assessing the state of the market and its determinants, so we have decided to use it again for 2019.

7.1. Overview

In 2019, .COM was still the market leader with a 43% market share, followed by the ccTLDs (excluding Penny) with 40% (compared with 42% in 2018). The other two segments, Other Legacy TLDs and nTLDs, accounted for 9% and 8% of worldwide registrations respectively (compared to 10% and 5% in 2018).

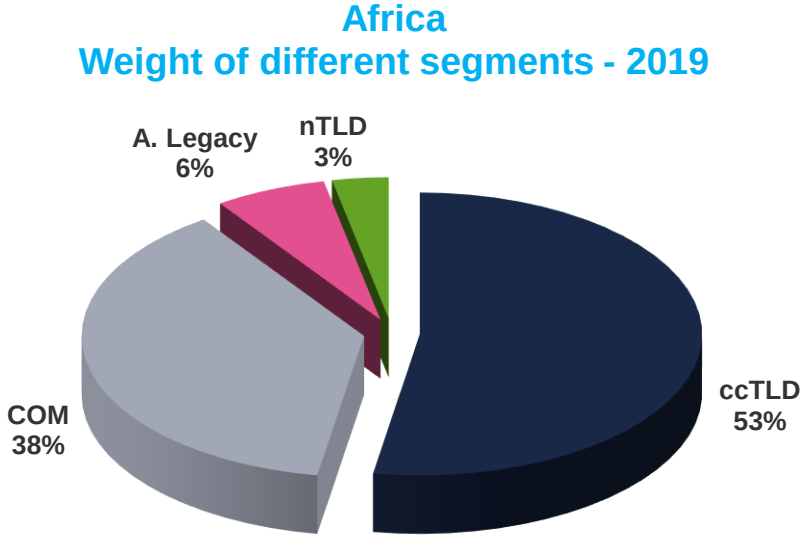


As we shall see, these global data conceal significant regional disparities.

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

7.2. Weight of segments in Africa

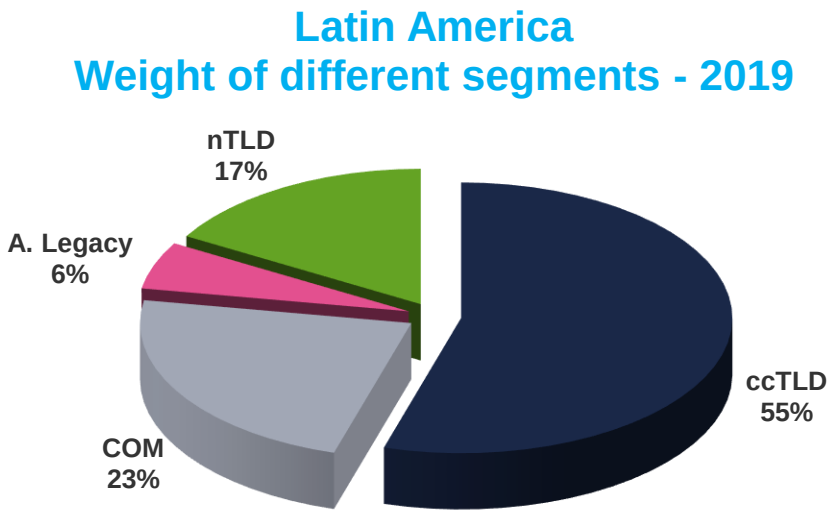
In Africa, local ccTLDs are leaders, with a 53% market share (compared with 55% in 2018), while the .COM comes in second place with 38% (compared with 36% in 2018). Other Legacy TLDs represent 6% (compared with 7% in 2018) and nTLDs remain marginal with 3% (2% in 2018). The .COM thus grew somewhat, as did the nTLDs, to the detriment of local ccTLDs and Other Legacy TLDs.



These figures contradict the received idea that African users give priority to .COM over local ccTLDs on the grounds that the latter are more expensive, more demanding in terms of eligibility, less automated, etc. In actual fact, these constraints may exist but they are not sufficient to give .COM the leading position in Africa that it holds worldwide. This factor could be due to the fact that ICANN registrars are less present in Africa than on other continents. As a result, local users turn to registrars that work more spontaneously on the registries of ccTLDs.

7.3. Weight of segments in Latin America

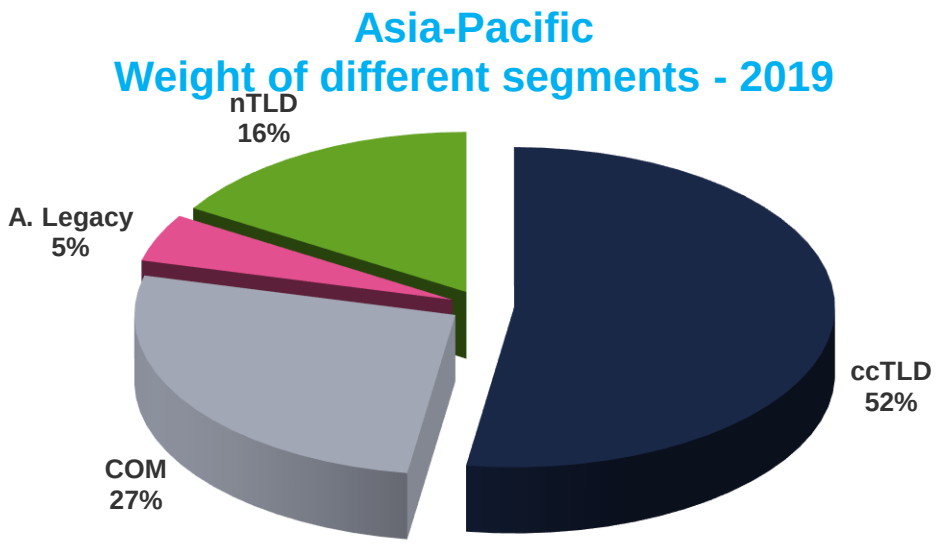
The profile of the Latin American market is similar to that of Africa in terms of market share of ccTLDs. However, there is a much bigger presence of nTLDs (17% as against 3%), in particular because some major players are domiciled in Panama, from where some important registrars also offer proxy services. The modest share of “Other Legacy TLDs” (6%), 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 .COM 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 than in 2018 (52% market share), followed by .COM (27%), Other Legacy TLDs (5%) and nTLDs (16%).

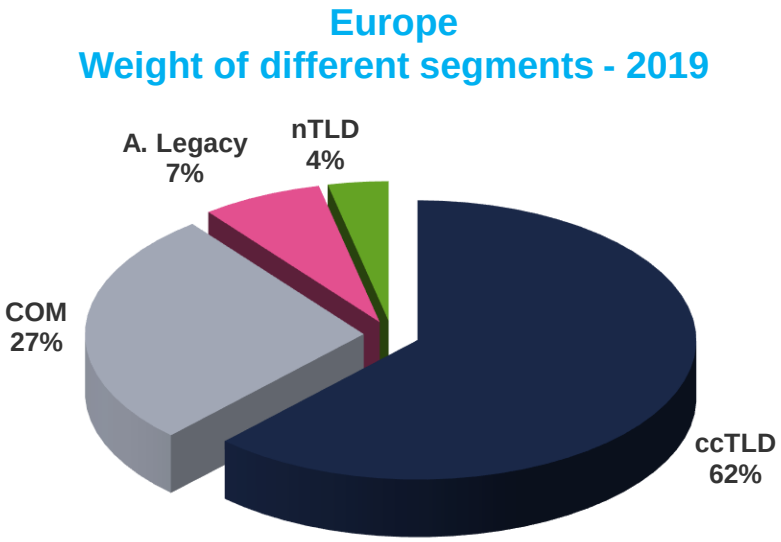


In this region, the ccTLDs' losses of market share have particularly benefited nTLDs. So is there a causal relationship between the two phenomena? The sharp fall of the .TW could be the consequence of less

attractive renewal tariffs than those applied to initial registrations in 2017/2018. This would mean that domainers who positioned themselves on this ccTLD a year ago abandoned it in 2019 and returned to nTLDs. As for the .CN, it is impossible to determine the reasons for its successive ups and downs with any degree of certainty.

7.5. Weight of segments in Europe

It is in Europe that ccTLDs have the biggest share, with 62% (compared with 64% in 2018). The .COM remains at 27%, while Other Legacy TLDs are down one more point, to 7%. The biggest gains were those of nTLDs, which added 2 pp to reach 4%.



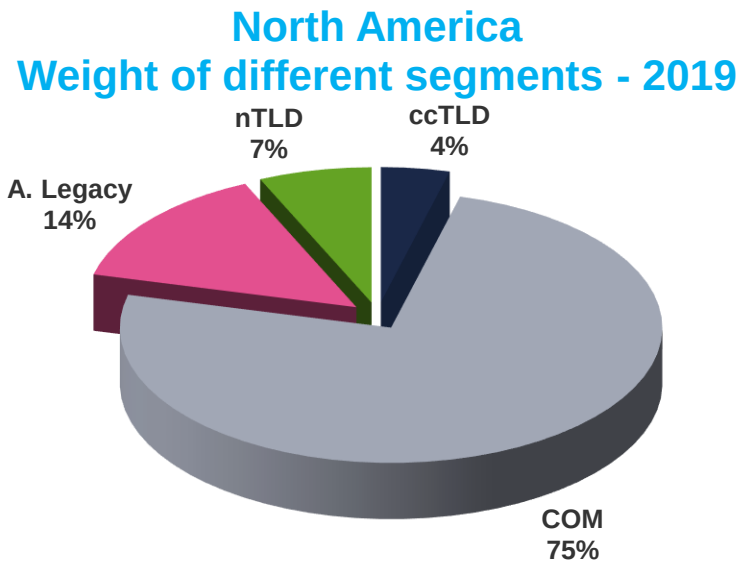
In view of the still very marginal share of the nTLDs, it would be premature to signal the emergence of a European appetite for them. However, although limited, the trend is positive and shows that things are moving gradually.

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 (75%) it crushes all 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 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 7% (against 3% in 2018).

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. It may not be too much to hope that one day there will be instruments allowing a more refined approach to the distribution of domain names by country and owner, but the constraints linked to the GDPR and the countermeasures put in place by operators do not invite optimism.

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 (2019)

	ccTLDs (*)	.COM	Other Legacy TLDs	nTLDs	Total
Africa	1,760	1,261	214	108	**3,343**
Latin America and the Caribbean	8,581	3,633	890	2,614	**15,718**
Asia-Pacific	43,762	22,194	4,024	13,552	**83,532**
Europe	73,040	32,104	8,272	4,124	**117,540**
North America	4,612	84,175	16,156	7,590	**112,533**
TOTAL	**131,755**	**143,367**	**29,556**	**27,988**	**332,666**

(*) 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 (2019)

	ccTLDs	.COM	Other Legacy TLDs	nTLD	Total
Africa	53%	38%	6%	3%	**100%**
Latin America and the Caribbean	55%	23%	6%	17%	**100%**
Asia-Pacific	52%	27%	5%	16%	**100%**
Europe	62%	27%	7%	4%	**100%**
North America	4%	76%	14%	7%	**100%**
TOTAL	**40%**	**43%**	**9%**	**8%**	

Weight of regions in the total of each segment (2019)

	ccTLDs	.COM	Other Legacy TLDs	nTLD	Total
Africa	1%	1%	1%	0%	**1%**
Latin America and the Caribbean	7%	3%	3%	9%	**5%**
Asia-Pacific	33%	15%	14%	48%	**25%**
Europe	55%	22%	28%	15%	**35%**
North America	4%	59%	55%	27%	**34%**
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 slight restatement is needed to consolidate the 2,372 registrars listed at the end of 2019 (all Legacy TLDs and nTLDs together) into relevant "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.

	Groups (*)	Registrars (**)	No. DNs managed (***)	% Groups	% DNs managed
Africa	11	11	69	3%	0%
LatAm & Carib.	17	20	2,321	4%	1%
Asia-Pacific	156	254	49,768	36%	23%
Europe	134	135	25,154	31%	12%
North America	110	1,952	135,542	26%	64%
TOTAL	**428**	**2,372**	**212,853**		

Distribution of ICANN registrars by ICANN region as at 31/12/19
(*) 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

We see that groups of registrars are above all spread between Asia-Pacific, Europe and North America. Although relatively less numerous, registrars from North America account for 64% of the names managed, as against 23% 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 29 Groups that manage a million or more names are located in North America, 9 in Asia-Pacific, 6 in Europe, and 1 in Latin America and the Caribbean.

Volumes	AF	LAC	AP	EU	NA	Total	%
1 million or more	-	1	9	6	13	**29**	**7%**
500,001 to 1 million	-	-	6	8	8	**22**	**5%**
100,001 to 500,000	-	3	26	28	6	**63**	**15%**
50,001 to 100,000	-	3	8	18	10	**39**	**9%**
25,001 to 50,000	1	1	9	19	11	**41**	**10%**
10,001 to 25,000	-	2	19	14	12	**47**	**11%**
5,001 to 10,000	3	-	19	11	13	**46**	**11%**
5,000 or fewer	7	7	60	30	37	**141**	**33%**
TOTAL	**11**	**17**	**156**	**134**	**110**	**428**	
%	**3%**	**4%**	**36%**	**31%**	**26%**		

Distribution of Groups of ICANN registrars by ICANN region and by volumes as at 31/12/19

The most significant players in the market seem 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%. The list of the 29 Groups managing a million or more names is instructive in this regard:

Group Name	Region ICANN	Country	No. DNs (*)
GoDaddy.com, LLC	NA	USA	64.9
eNom, LLC	NA	USA	15.4
Alibaba Cloud Computing (Beijing) Co., Ltd.	AP	China	12.6
Network Solutions, LLC	NA	USA	10.3
NameCheap, Inc.	NA	USA	9.5
TurnCommerce, Inc. DBA NameBright.com	NA	USA	5.6
GMO Brights Consulting Inc.	AP	Japan	5.4
PDR Ltd. d/b/a PublicDomainRegistry.com	AP	India	4.9
1&1 IONOS SE	EU	Germany	4.9
Xin Net Technology Corporation	AP	China	4.8
Google LLC	NA	USA	4.2
Chengdu West Dimension Digital Technology Co., Ltd.	AP	China	3.5
NameSilo, LLC	NA	USA	3.4
Moniker Online Services LLC	NA	USA	3.3
Epik Inc.	NA	USA	3.0
West263 International Limited	AP	Hong Kong	2.4
OVH sas	EU	France	2.2
Name105, Inc.	NA	USA	2.1
Dynadot, LLC	NA	USA	2.1
Web Commerce Communications Limited dba WebNic.cc	AP	Malaysia	1.9
Powered by Domain.com LLC	NA	USA	1.7
Todaynic.com, Inc.	AP	China	1.6
CSC Corporate Domains, Inc.	NA	USA	1.4
Gandi SAS	EU	France	1.4
Uniregistrar Corp	LAC	Cayman Islands	1.2
Cronon AG	EU	Germany	1.1
PSI-USA, Inc. dba Domain Robot	EU	Germany	1.1
Mesh Digital Limited	EU	UK	1.1
eName Technology Co., Ltd.	AP	China	1.1
TOTAL "LEADERS"			**178.2**
GRAND TOTAL			**212.9**
% LEADERS			**84%**

Groups of ICANN registrars holding more than 1 million names in portfolio as at 31/12/19
(*) number of names managed in millions

The leader by far is of course GoDaddy, with 65 million names under management and accounting by itself for 31% of Legacy TLDs and nTLDs together. The number two, eNom, has "just" 15 million names, and only the top four have more than 10 million names in stock. Of the top ten, five are from the US, and one each from China, Japan, India and Germany.

These figures can be qualified: for example, 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 by between 10 and 20 percent in favour of other regions. But the distribution key would also pose a problem in that it would risk creating other biases even less under control than the current ones.

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.

7.9. Lessons learned

Among the lessons drawn from this 2019 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 TLDs, 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.
- The strongest growth continues to be found in Asia-Pacific and in nTLDs, although these include a large number of "penny TLDs" which may lead to a rapid reversal in the situation.
- Conversely, the ccTLDs are losing speed relatively, and this is particularly noticeable in Europe and North America.
- nTLDs remain marginal but are increasing, while "Other Legacy TLDs", though defending their positions well, have been posting declines for several years and it is difficult to foresee an end to this decline.
- The Africa and Latin America regions are similar to the nTLDs, with rather low weights but growing steadily.
- In all regions and for all segments, the impact of the "topology" of the distribution network makes 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 are effectively added to the cultural factors we described in 2018. 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.

- ThenTLD 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.

But 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 2019.

8. Highlights of 2019 and early 2020

The market changes observed since 2015 continued in 2019, but increased in intensity due to the combination of several factors: the overall slowdown in growth relative to the levels of the first half of the decade; cash-flow problems experienced by many nTLD players; the race for critical size to achieve economies of scale and synergies; and the growing presence of financial groups with the resources to pursue ambitious external growth strategies.

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

8.1. A TLD market that is still active

The movements identified in 2019 and in the first quarter of 2020 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.

Changes in delegatees/registries:

- Afilias **has acquired** .GLOBAL.
- Donuts **has acquired** .CONTACT.
- DotXYZ has bought **.MONSTER and relaunched it as a generic TLD. A similar operation was carried out at the end of 2019 with five other nTLDs:** .QUEST **on the one hand, and on the other four TLDs initially created by** L'Oréal: .MAKEUP, .BEAUTY, .HAIR and .SKIN**.**
- Neustar **has acquired** .COMPARE **and** .SELECT**, for which it was already the back-end operator.**
- Radix has bought out .UNO, having already bought .TECH (2014) and .FUN (2017). Radix also holds .SITE and .ONLINE, which each have more than a million names in portfolio.

Back-end operators

- .ET (Ethiopia) has been taken over by Chinese operator ZDNS.
- .IN (India) has passed from Afilias to Neustar.
- .VU (Vanuatu) has been acquired by Neustar (which also retains .US (USA) at least until 2029).
- Neustar has signed a new contract for .CO (Colombia) and recovered the back-end operation of .BANK and .INSURANCE. At the beginning of 2020, Neustar sold all its registry business to GoDaddy (announced in April). 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 operator particularly targeting candidates for .BRAND.
- Amazon has transferred 40 of its nTLDs from Neustar to Nominet (.UK / United Kingdom).
- .BLOG has passed from Nominet to CentralNic.
- .MLS has chosen CIRA (.CA / Canada) as back-end operator.
- .NATURA has been transferred from Afilias to .BR (Brazil).
- The "adult" TLDs of MMX (which has bought ICM Registry) have passed from Afilias to Uniregistry. This concerns .XXX, .ADULT, .SEX, and .PORN.

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 events of the past few months have shown that “renegotiations” are not so much occasions for real return to competitiveness as rearrangements of pricing conditions. As for the .ORG, Ethos Capital’s aborted attempt at relaunch included the purchase pure and simple of its PIR registry from ISOC. The economic and geopolitical interests at stake are such that the *status quo* is often considered preferable to any change.
- Themajor 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 in 2019, and we have picked out the following highlights:

- Clarivate, the parent company of MarkMonitor, merged with Churchill Capital Corp. Renamed Clarivate Analytics Plc, the group was floated on the NYSE stock exchange with the ticker CCC.
- Tucows acquired Ascio from CSC, which now focuses on large accounts.
- Montefiore Investments acquired Gandi.
- Register Group (formerly Dada, parent of Amen) merged with Team Blue, itself the result of a merger between Combell and TransIP.
- CentralNic (listed on the London stock exchange) was without doubt one of the most dynamic players in terms of acquisitions in 2019/2020, as in 2018 when it doubled in size. This aggressive strategy, applied at three levels (registry, back-end and registrars) is a vertical integration model allowing synergies to be created among the three activities. It was financed by a €50 million bond issue in June 2019. These substantial resources enabled CentralNic to acquire:
    - MelbourneIT’s network of resellers, for 24 million Australian dollars;
    - Hexonet (€10 million) and one of its resellers called iwantmyname (€3.1 million);
    - Parking Crew/Team Internet AG, for $48 million, a transaction which according to the analysts is going to profoundly transform CentralNIC’s business model, positioning it strongly at the forefront of the “monetisation” of domain names.
- Donuts for its part has the same logical approach to acquisitions, this strategy being visibly reinforced (and made possible) by the recent acquisition of the Group by an investment company. Asked about their plans, the CEO stressed the importance attached to the network of distributors of its TLDs. There do not seem to have been any major transactions in 2019.

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.

Digital identity

Several registries have long been interested in this subject: **CZ.NIC (.CZ/Czech Republic)** with **MojeID** and **DENIC (.DE/Germany)** with **ID4me**.

This past year, they were joined by **SIDN (.NL/Netherlands)** which communicates for example about the use of "eIDs" by **DK Hostmaster (.DK/Denmark)** to identify holders and so combat cybercrime. **SIDN** stresses the attraction of the approach and refers to its partnership with IRMA to set up "a unique privacy-enabled identity platform that lets users share only as much personal data as strictly necessary." The intention is eventually to establish an identification of holders of .NL domain names via this system.

SWITCH (.CH/Switzerland) questions the link between digital identity and sovereignty: *"The digital identity of our population defines the virtual national border of digital Switzerland. Sovereignty in this regard becomes a critical task for the Confederation."*

DENIC for its part reports on the positive results of tests carried out on its **Single Sign-On (SSO)** solution, based on the **Id4me** open standard.

Lastly, **Neustar** boasts that its Identity Data Management Platform was recognised by "an independent research company", namely **Forrester Research**.

Cybersecurity, and in particular security surrounding DNS

The subject gained particular prominence due to the massive attacks of late 2018, which gave rise to communications on DNSSEC and "locking" services.

Nominet actively promotes its **NTX** solution and seeks to export it to the Middle East and Africa as well as the US. The registry has even set up a subsidiary in Washington for this purpose.

CZ.NIC mentions three subjects: the publication of a book called "Cybersecurity" designed to better inform the public about these issues; the launch of a project making CZ.NIC the national coordinator of the actions taken to improve the safety of children on the Internet; and finally the participation of the **Brno University of Technology**, **CESNET** and **CZ.NIC** in the European **SPARTA** project.

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.**

Such is the case of the communications made over the course of the year by **WHOIS API, Inc**., which publishes work on themes such as pure monitoring via domain names ("Domain Research and Monitoring: Keeping an Eye on the Web for You"), the evaluation of the reputation of domain names from a Security point of view ("Domain Reputation API: Scoring High Points for Deliverability and Security") and the surveys carried out thanks to WHOIS data ("WHOIS History API: *Powering Domain Investigations").*

A direct competitor of **WHOIS API** is **DomainTools,** which highlights the new functionalities offered by its **Iris** platform (mentioned here to illustrate the scope of this kind of innovative service):

- Quickly gain context on infrastructure through the tagging of domains
- Identify related malicious infrastructure through subdomain information in SSL certificates
- View multiple key data points on a domain in a single window through Domain Inspection

- See the average risk and domain age for any given set of results through the Summary Metrics
- Easily export pDNS for use in other tools or documents

Other players such as **DomainsBot** target not so much Brands as registries and registrars, but offering fairly similar data, whereas **SIDN** closely links machine learning to security issues.

The business model of these services and their intrinsic attraction is, however, heavily dependent on access to data. While there are not too many problems for regional files (for gTLDs and certain ccTLDs), the same cannot be said of WHOIS data, which are less and less accessible. The added value of the data collected should therefore in future rely less on WHOIS than on information gleaned from a domain name: use via webcrawling systems but also DNS configurations, and in general "technical environment", of which the domain name itself is just one link.

Concerning access to WHOIS data, the absence of clear and durable procedures does not prevent certain players from starting to position themselves in this potentially lucrative market. A case in point is **PricewaterhouseCoopers** which no doubt is trying to reproduce the success of the TMCH.

New players continue to emerge onto this dynamic market, examples being **Threat Intelligence Platform (TIP)** which endeavours, like **Whois API**, to convince its prospects of the need to put in place "Managed Detection and Response Services".

A certain number of ccTLD registries are also positioning themselves in this market, or are sufficiently interested in it to have published articles showing that they have already given serious consideration to the question:

- SWITCH (.CH/Switzerland) talks of the role that a registry can play in anticipating cyber risks.
- EURID (.EU) has published a study on the identification of "malevolent" domain names and is launching its APNEWS ("Abuse Prevention and Early Warning System") designed to identify upstream domain names potentially registered with a view to committing abuse. According to Eurid, APNEWS is "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/Netherlands) addresses the attraction for major groups of having monitoring tools designed to track the use made of their brands by third parties. The registry also publishes numerous articles on the subject of security linked to domain names. One of them laments the fact that businesses are so slow to adopt registry lock systems, while at the same time explaining some of the constraints on the deployment of these kinds of services. Another post deals with the detection of fake web shops and yet another announces the launch by SIDN of Cybersterk, a user-friendly security solution for VSE/sSMEs. SIDN has also announced that it 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).
- NIC.AT (.AT/ Austria) reports on the work of its "Labs" team and makes mention among the most active projects of one called "DNS Magnitude" aimed at measuring statistically the popularity of a domain name.
- ICANN for its part has opened its DAAR (Domain Abuse Activity Reporting) system to ccTLDs

Innovations brought to market or in preparation

2019 was particularly rich in new services and promising ideas:

- SIDN inaugurated Domain Connect, an open-code system allowing registrars to offer their clients the possibility of very rapidly interfacing their domain names with various online platforms: Office 365®, WordPress®, Google®, WP-Engine® and Hubspot®.The idea is that by simplifying the use of domain names as much as possible, the renewal rate of the domains will be increased accordingly.

- Google inaugurated its Domain Properties service allowing users to access their domain names and the various URLs linked to them through a single interface. The objective is to save users the task of manually consolidating these various items of information.
- Nominet has launched WaveDB Explore, *"to support Wireless ISP Deployment of TV White Space in the UK, US and Beyond"*.
- Unstoppable Domains raised US$4 million to develop services around blockchain domains, no doubt inspired by Nominet's offer for one of its clients (.LUXE). As a corollary, major Chinese registrar/host, etc. Alibaba filed a patent for a blockchain domain name management system.
- InternetX launched a new version of its AutoDNS service, a domain name management platform offering a number of integrated functionalities, from portfolio management through (second) market place to performance measurement: *"The aim of the new AutoDNS is to combine products, performance data and analyses from 200 different suppliers on one platform, thus offering a full-service solution. With 39.1 million listed domains, AutoDNS offers the largest selection on the market – consisting of 20.2 million premium and 18.9 million marketplace domains."*
- SIDN (.NL) has reported on its reflections on the links between DNS and the Internet of Things.
- ICANN announced the providers selected to be EBEROs (Emergency Back-End Operators). These include CNNIC (.CN/China), CIRA (.CA) and Nominet (.UK), CORE having apparently been removed from the list. The announcement does not indicate the renewal term of these functions.
- ICANN **appointed a tenth Data Escrow Provider, the Russian company** MSK-IX**, which also serves as Exchange Point. According to the announcement, this is the fourth escrow provider in Europe (three of them are in the EU). The other six are concentrated in Asia (5), while North America has only one.**
- Verisign has continued to improve its NameStudio service for suggesting domain names, offered to registrars and their resellers to boost their sales. It is interesting to see what arguments are put forward:
  - The OPE feature allows for even more personalised domain name suggestions based on information users choose to share with registrars and resellers about their online presence, such as:
    - Marketplace store and business social media account names
    - Social network, website builder, e-commerce and video streaming platform URLs
    - Business categories (example: fashion, restaurant, professional services)
- Still within the same approach to value creation around domain names, MOZ proposes a global domain name analysis service (from the point of view of SEO). The factors reviewed were:
  - Domain Authority
  - Linking Root Domains
  - # of Ranking Keywords
  - Spam Score
  - Top Pages
  - Top Linking Domains
  - Discovered and Lost Links
  - Keywords by Estimated Clicks (new)
  - Top Ranking Keywords
  - Top Featured Snippets (new)
  - Top Branded Keywords (new)
  - Keyword Ranking Distribution
  - Top Search Competitors (new)
  - Top Search Questions (new)

Infrastructures

- SIDN Labs launched an experimental DoH server.
- DENIC has made its DNSmeter tool for measuring the performance of DNS servers available to the community, entrusting it to DNS OARC (a platform designed for DNS developers and operators).

- CZ.NIC launched its Turris MOX router onto the market.
- NetActuate, which numbers the Austrian registry NIC.AT among its clients (in the context of the RCodeZero offering) has announced the launch of a programme designed for “emerging ccTLDs”, which will apparently be offered free use of DNS infrastructures (to be compared with a similar initiative of CentralNIC).
- The NIC.AT has continued to convince other registries to use its RCodeZero anycast technology, notably NASK (.PL/Poland) and Eurid (.EU).
- Still in the area of services linked to DNS infrastructures, CIRA also indicated that it has signed up .PL, .NZ (New Zealand) and .FI (Finland).

9. Conclusions and outlooks

The domain name market can be compared to the ocean in stormy weather. The surface is disturbed by large waves, while in the depths the currents remain unchanged.

This comparison seems all the more apt in that for several years, these large wave movements have been linked to one-off or transient events: aggressive campaigns, new domains opening the way to previously impossible registrations… and the consequences of these bonanzas one year later.

While 2018 was a year of recovery after the shocks of 2015-2016, 2019 was a contradictory period mixing the exuberance of certain TLDs with a global situation marked rather by stability, or even a slight decline.

We may therefore wonder which will prevail in the coming months – the inflationary and fragile spiral in which a handful of major TLDs are engaged, or the relatively lacklustre market conditions. The coronavirus crisis seems to have spurred the create operations of many TLDs. It remains to be seen whether this acceleration of the digital transition was an opportunistic and one-off reaction or the start of a durable shift in practices among VSEs/SMEs.

On the other hand, an economic crisis following the health crisis remains possible, not to say probable. The domain name market, less exposed than others to restrictions on the circulation of persons and goods, may be less affected; but the role of the Chinese market as driver will no doubt decline, at least in 2020.

The “ductility” of the nTLD market, characterised by numerous changes of delegatees and back-end operators, is both a sign of health – at least the blood is circulating – and a reason for vigilance, given that the economic situation of a significant proportion of nTLDs is likely worrying. Faced with a slowdown in their growth, or indeed even losses of stock, the major registries of Legacy TLDs have found the means to increase their charges to protect their profits. This realignment, which is harmful to users, will benefit ccTLDs and nTLDs by reducing the price gap for the former and making the latter more accessible.

The future of ccTLDs and nTLDs engaged in low-cost strategies is problematic. Even if their registries were able and willing to change the parameters of their policies, they risk coming up against the resistance of their partners – registrars who are themselves engaged in this kind of policy – and having to go through a period of transition made all the more difficult by the fact that the image of their TLDs will have suffered from sometimes questionable practices deriving from the ease with which thousands of names were registered free or virtually free of charge. .WANG is perhaps an illustration of this phenomenon and of how difficult it is to escape from this model once it has been adopted.

We devoted particular attention in this 2020 report to the business models of the nTLDs with regard to the segments to which they belong. The passage between the Scylla and Charybdis of exclusion and dilution is rather narrow, and future candidates would do well to ponder on their predecessors’ experiences.

The next ICANN round is still some way off. Even if it takes place in 2022 – which is optimistic – the new entrants will not appear on the market before 2023 or 2024. These years of waiting will also be an opportunity for players and candidates to let their models and ambitions mature, particularly as regards the future .BRANDs.

Our observation for 2018 remains valid for 2019. The challenge for the entire domain name market is still to move out of a “binary” mode dominated by the .COM in North America and ccTLDs in the other regions. 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.

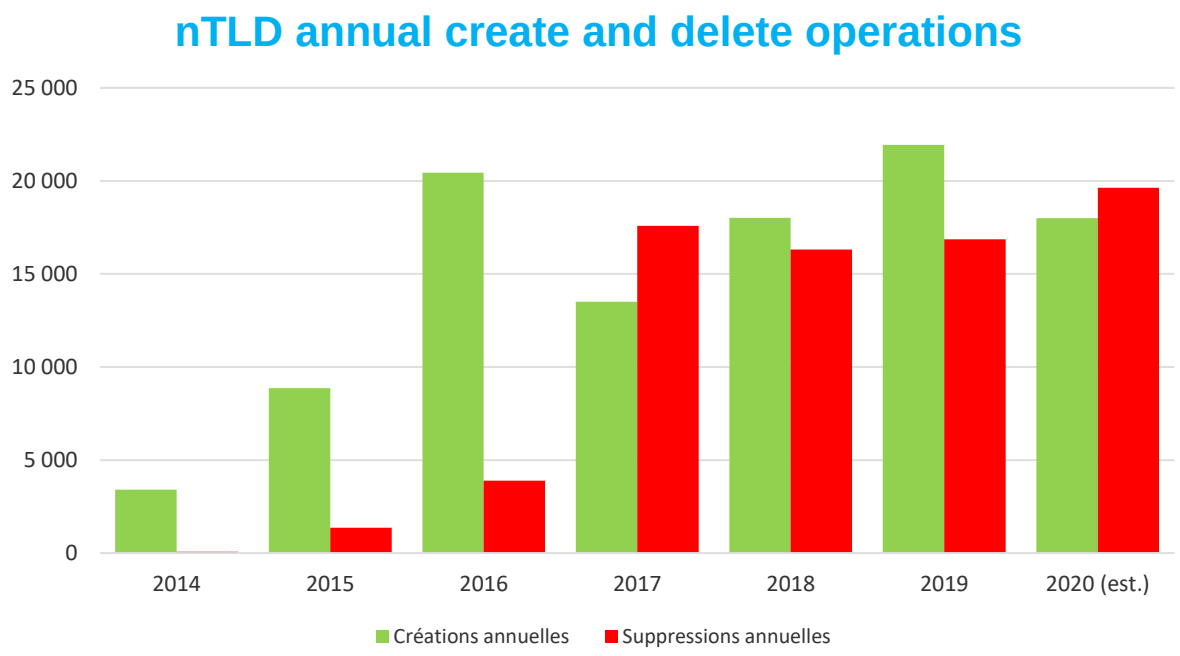
A logical response to this strategy of value through prices, which has not produced convincing results, was a strategy of low-cost or quasi-free domain names relying on subsequent renewals. One solution, no doubt easier said than done, would be to think of having “niche” nTLDs that would be viable even if

they did not reach particularly large volumes. ICANN through its flat fees, back-end operators and registrars have an important role to play in this direction.

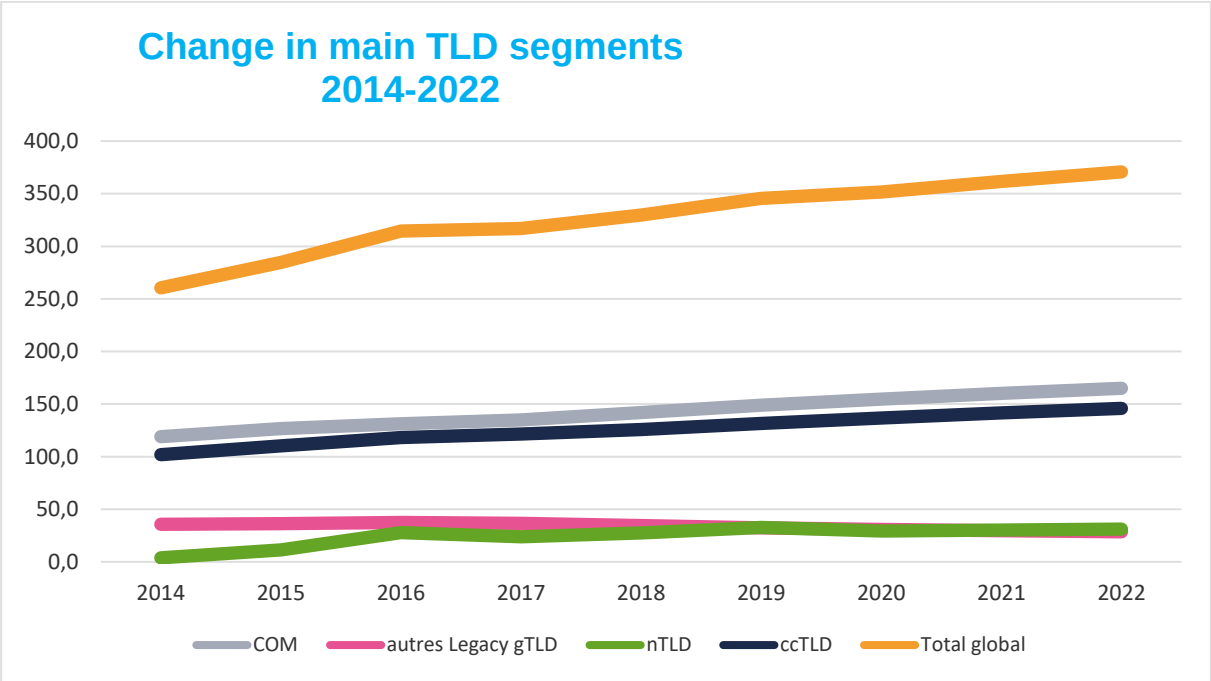
The persistently low demand for nTLDs is an abnormal phenomenon considering that during the same period .COM create operations have continued to soar. The problem no doubt has more to do with certain shortcomings in the ICANN registrar model as it currently stands, which prevent small nTLDs from easily accessing the niches that they are aimed at. The adjustment will certainly be made, but it will take time, too much time perhaps for many of these small nTLDs.

Being an ICANN registrar requires technical and administrative resources and skills that are not available to all. Having taken the step, it is only natural for registrars to seek to make their investments profitable. They are unlikely to have as a priority the provision of outlets for nTLDs by building and coordinating networks of resellers able to approach targets directly. However, an nTLD needs to be catalogued by registrars in order to be disseminated; it depends on them for its survival. Part of the asphyxiation of this market segment is therefore paradoxically due to the registrars themselves, taken collectively at the global level. The “invisible hand” beloved of Adam Smith seems not to be working as far as domain names are concerned.

The study of nTLD creation and deletion volumes since 2014 shows that create operations are tending to settle down while delete operations follow the variations in registrations of previous years with a one-year lag. If our forecasts are correct, 2020 will be even more tense than 2018 and 2019 for the nTLD segment (assuming no exceptional phenomena such as that of the .ICU in 2019).



As for the other segments, there is no reason to think that in 2020 they will break from the trend followed in 2018 and 2019. Unless some extraordinary event occurs, the Other Legacy TLDs should continue to slowly decline, periodically revived by promotional campaigns resulting in peaks of delete operations the following year. The .COM will no doubt continue its momentum, the effect of the increase in tariffs being felt mainly from 2021, as will the ccTLDs, which share with it the perception of “safe haven” among users who are unfamiliar with nTLDs and not inclined to discover them.



2020 should therefore see fairly moderate growth of the domain name market, characterised by an acceleration in the first half of the year and by a depression in the second. The coronavirus crisis however makes the situation less easy to read than in previous years, by introducing a large number of factors of uncertainty.

Faced with these complicated market conditions, 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.