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The Know-How Network

Beyond carve-out

How telecom infrastructure carve-outs are transforming industry landscape ?

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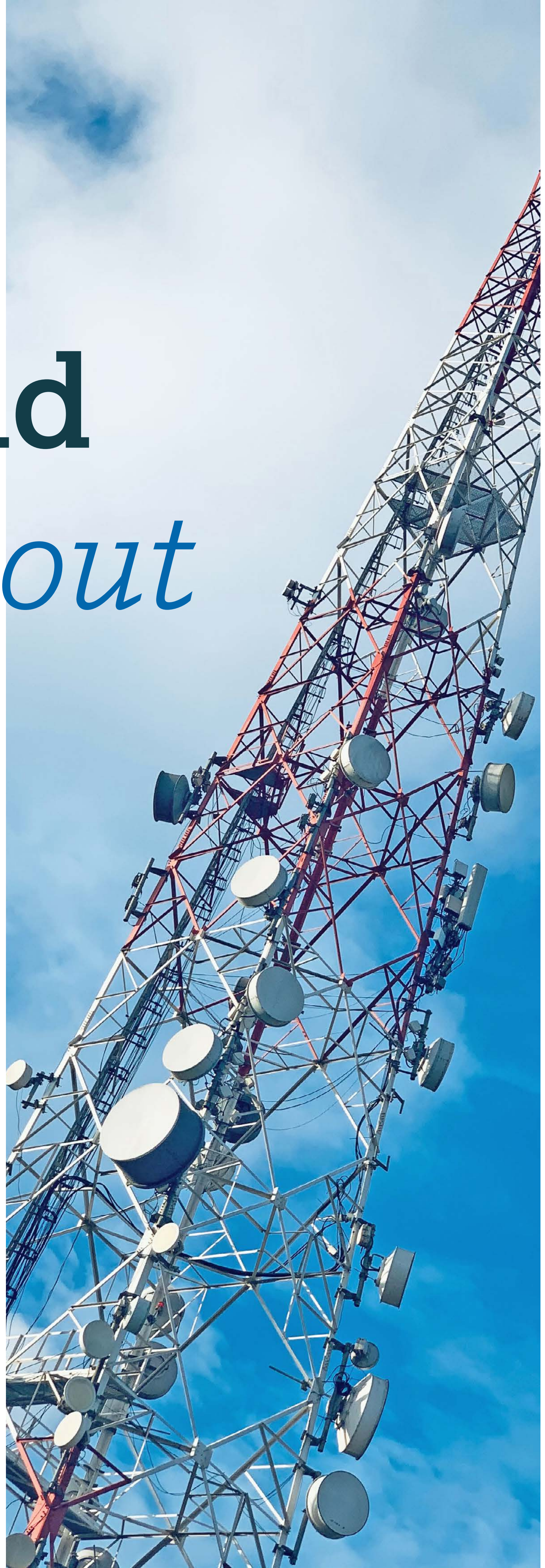
Beyond *carve-out*



The digital industry has engaged in many carve-outs of its infrastructure assets in recent years. Is this simply a financial phenomenon due to the renewed attractiveness of the new infrastructure-only business models, or is it more the expression of a deeper change in the industry ?

Something began in the late 2010s

The first initiatives happened when independent Towercos reached a significant size. It continued with the emergence of independent fibercos reaching scale. Both models proved to be profitable and considered stable thanks to favorable regulation frameworks. From that moment, across Europe, infrastructure carve-outs began to flourish in the telco industry, up to the point where most telcos are today convinced that passive infrastructure is something to be carved-out. The question has evolved from should telcos proceed to carve-out infrastructure to how should they do it ?

Infrastructure is no longer the sole foundation of telcos' competitiveness

Since the start of the telco industry, infrastructure was the core of business : it was because of your superior infrastructure and your ability to operate it, that you were competitive as a telco. Infrastructure was and still is the key to coverage, service delivery and quality of service. Innovation is dedicated to improve infrastructure performance, but focused on active infrastructure. Passive infrastructure is not evolving so rapidly : the fixed copper network, the passive part of it, ie copper wire, lasted for 70 years before fiber started to replace it. Fiber is expected to last more than that. For mobile, most towers were built for 2G networks and reused for following generations (3G, 4G, 5G). Each generation required incremental sites to be opened, but most towers are operating for decades.

The reasons behind carve-outs

In a nutshell, two main reasons : financial or strategic, and ultimately both.

► The Financial perspective

a. Balance sheet : only when the assets are not contributing to operations, such as properties.

b. Improve ROIC or improve shareholder value : asset carve-out would improve either Return On Invested Capital (ROIC) or shareholder value only if the asset is no longer profitable or is going to depreciate rapidly, such as copper network. For Mobile towers and FTTH, it's all the contrary : profitability of such assets is higher than the telcos service business itself. Thus, although a carve-out is an opportunity to improve valuation of existing assets, it presents the risk for telcos to depreciate shareholder value of the core service activity. Nevertheless, recent carve-outs from telcos did not seem to have led to a significant depreciation of their share value.

c. Reduce capex requirements and share capex financing through opening of carved-out company capital to financial partners.

d. Generate additional revenue through growth of colocation business and improve return on existing assets. To carve-out mobile towers results in the creation of a company or business unit dedicated to colocation and makes it easier to rent space for other telcos on towers, thus improving tenancy ratio.

► Strategic perspective

a. Opex optimization through infrastructure sharing : mature telecom markets are infrastructure abundant and both regulation and economic models push telcos to optimize it. To carve-out infrastructure facilitates sharing and optimization.

b. Go asset-light or vertical disintegration: the virtualization of networks and the telco cloud will relegate infrastructure to commodity, thus pushing telcos to consider getting rid of it to become more flexible. However, it eliminates entry barriers for new players.

c. Expand footprint faster through co-investment or use the carved-out as a vehicle for international consolidation. Such a strategy is pursued by several European telcos, including Orange and Vodafone.

How infrastructure carve-out happened: Towerco case

Telco infrastructure carve-outs are complex operations with two stages. The first stage is to carve-out infrastructure in an affiliated company, 100% owned by the Telco. DT and Telefonica were the first to do it with Deutsche Funkturm and Telxius, Vodafone with Vantage Tower and Orange with Totem followed. The objective is to create a company able to operate as a stand-alone player and to make its financials visible to external investors. The second stage is to open the affiliate to external investors or simply sell it. Some Telcos did both : starting with a financial investor, then selling their remaining share to an independent towerco. This is what Telefonica did with Telxius : selling 40% of Telxius shares to KKR in 2017, then 9,99% of shares to Pontegadea in 2018, to ultimately selling its remaining share to American Tower Corporation in 2021.

Early 2022, Deutsche Telekom announced its European tower base of 40600 towers and rooftops is for sale and Brookfield Asset Management and Digital Bridge, both investment funds, allied for the purchase of 51% of the German Towerco, valuing the company at 17,5 billion euros, which represents a value of 431k€ per tower. This valued DT assets as the most expensive ever in the European market (see figure 1).

At first sight, it seems over valued as it is doubtful that DT's towers can deliver such a value over the long term. The table 1 shows that the discounted cumulated value would generate return on investment somewhere after 35 to 40 years of operations and subject to a significant raise in rental revenue per tower.

Obviously, the value of such a deal shall not be found in running this tower business as stand-alone, but rather in the consolidation opportunities it provides. A consolidation of DT's assets with an existing and complementary tower base, such as the one of Cellnex or ATC, would considerably improve the market position and the bargaining power of the independent towercos. However, such a consolidation would put the super-sized towerco in a position to exercise control of colocation market prices and pump value from operators.

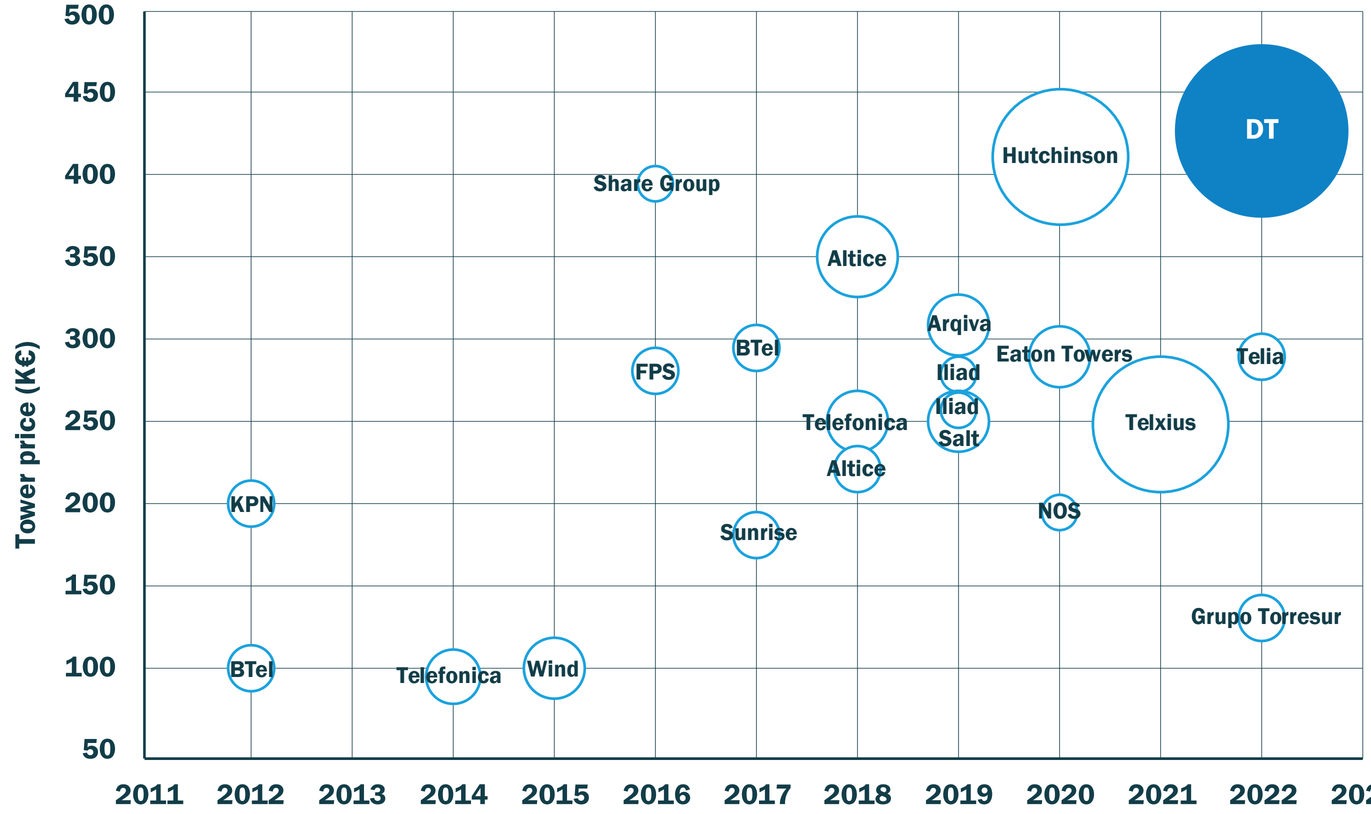
Another possibility is for infrastructure investment funds to consider DT assets base as a masterpiece to build a consolidation engine with other operator's towercos. In other words, an infrastructure investment fund purchases its ticket to be a major stakeholder of the future European mega-towerco to be built through a possible merger with Totem or Vantage for instance. Maybe this is what Brookfield and Digital Bridge have in mind... Coming back to more down-to-earth considerations, if we look back to the many deals that took place in the last ten years, we see that :

- Large independent Towercos, especially ATC and Cellnex, spent almost €30Bn to purchase 100k towers, while only few small independent players remain.
- Infrastructure Funds entered the game later but are now the main fund providers for big deals.
- No large telcos have been so far able to create an international competitive player beyond their initial footprint : consolidation between telcos is expected and yet to come.
- Tower average valuation has more than doubled in ten years, but we don't expect this to continue and we believe prices will remain stable, as there is no new colocation business to be captured beyond 5G deployment and renting prices cannot grow further.

Most of the tower deals happened in Western Europe where independent towercos are still busy with consolidation : they don't want to miss the next wave which comes with large European telco's moves.

We believe the next stage for them will be to enter Eastern Europe markets. Eastern Europe Telcos are expected to initiate carve-outs of core infrastructure too, attracted by the high multiples offered by investors. One example is United Group which has created a South-Eastern European footprint and has initiated a mobile infrastructure carve-out process.

Figure 1 : Major Tower deals 2012-2022



Bubble size represents the number of towers
Source : Sofrecom 2022

Table 1 : Projected value of DT towers

Valuation through rental			
Tower Base valuation (M€)	17 500		
# of Towers	40 600		
Price / tower (K€)	431		
Average annual rental / tower (K€)	15	18	24
Total annual rental revenue (M€)	609	731	974
WACC	4%	4%	4%
Discounted cumulated value			
over 10-year	4 940	5 927	7 903
over 20-year	8 277	9 932	13 242
over 30-year	10 531	12 637	16 849
over 40-year	12 054	14 465	19 286
over 50-year	13 083	15 699	20 932

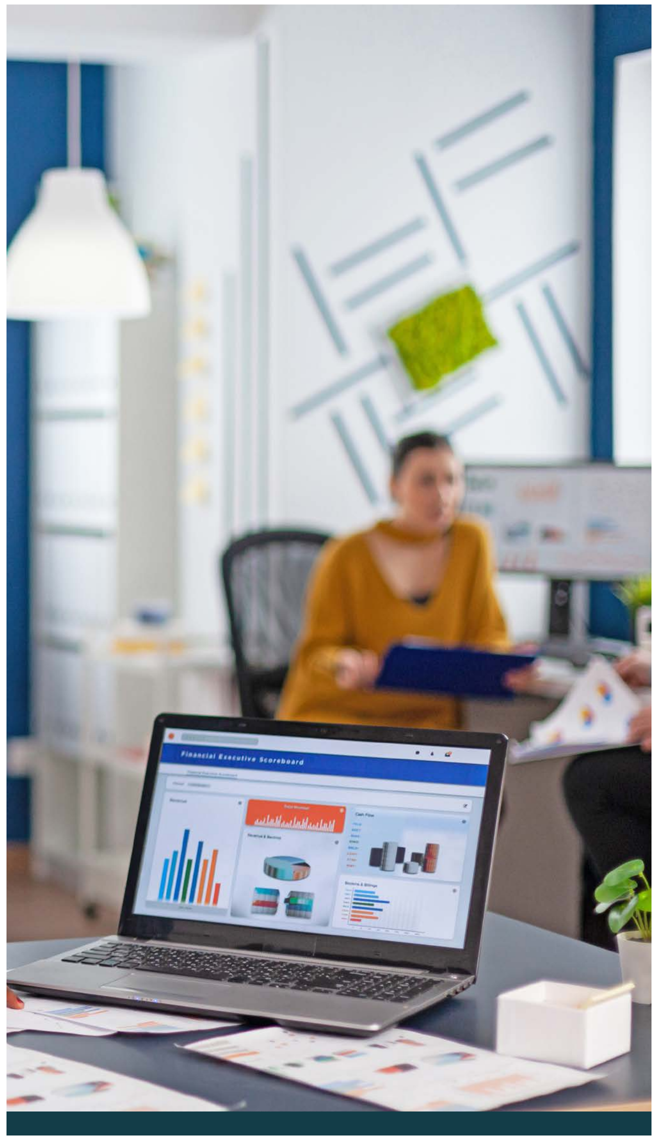
Source : Sofrecom 2022

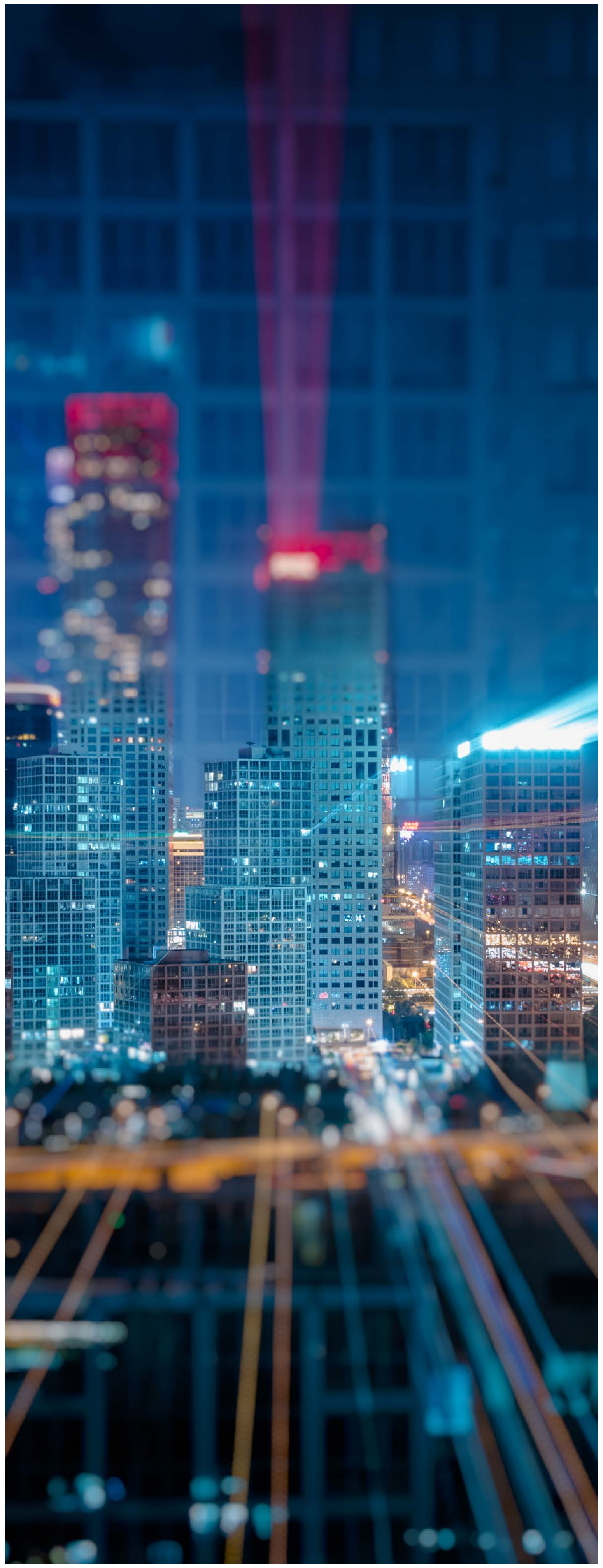
More carve-out and investment opportunities with FTTH deployment

Western Europe countries are reaching FTTH large scale of deployment and carve-outs and consolidation have begun for some years now :

- **France** : Altice France sells 49.9% stake in SFR FTTH (2018), Creation of Orange Concessions (2021)
- **Germany :** Telekom FTTH JV with EWE,
- **Italy :** Creation of TIM FiberCop, sale of stake to KKR, merger with Open Fiber in progress
- **Belgium :** Proximus creates 2 regional FTTH carve outs with minority stakes sales
- **Portugal :** Carve-out of MEO FTTH as FastFiber, sale of 49.99% stake to OMERS
- **Poland :** Carve out of Orange Polska FTTH
- **Finland :** Telia FTTH carve out, majority stake sold to CapMan

We expect investment from infrastructure funds to flow towards small players with aggressive deployment schemes and also to target established players willing to acquire smaller competitors to build a consolidated position in a specific market. No real independent cross-





border fiberco has emerged so far, but this is something that infrastructure investment funds can be instrumental to create, especially the large ones that pursue a clear multi-country strategy. However, there is no such thing as a mature market yet; and valuation will continue to be mainly based on potential coverage or planned deployments.

As a matter of fact, FTTH coverage is far from being achieved in all EU countries and even some large ones like Germany are far from being fully deployed. Germany, Poland, Romania, and some smaller EU countries will provide the next wave of opportunities for Telcos carve-outs and infrastructure investors. With the exception of Germany which is a safe and stable market from the investor’s perspective, Eastern Europe EU countries are seen as much more risky. Most infrastructure funds are not familiar with their legal and business environment and some of them even had bad experiences in other infrastructure sectors, such as transport or energy. However, we believe that investment in independent Fibercos and Telcos FTTH carve-out will take place in the coming years in this region. There are some infrastructure investors able to do it and telecom players ready to initiate carve-outs. Opportunities in Western Europe are decreasing in number and the sweet spot is growing to several billion, while the number of opportunities to finance small players growth will increase in Eastern Europe.

Telcos with mobile and FTTH assets will be targeted

In addition, investment funds are expected to bid for smaller vertically integrated operators as they will see the value of the asset can be maximised by splitting the retail operations from the infrastructure. This approach will require larger investments than targeting pure infrastructure players, but can face less competition from other investors. However, we don’t believe this will be the choice of infrastructure funds, but more likely experienced and opportunistic funds wishing to exit rapidly after restructuring. In this context, we believe Operators will also be targets and sometimes won’t initiate carve-outs themselves.

Datacenter : next wave or limited number of opportunities ?

Investment in datacenters from Telcos has been much smaller than in other types of infrastructure. Thus, opportunities for carve-out are less and somewhat smaller. However, another game change is coming with the evolution of telcos towards the telco cloud, ie the virtualization of network infrastructure. It is about the evolution from integrated network solutions towards cloud-based virtualized network functions and platforms. This is considered an opportunity for hyperscalers to further capture the value of the telecom industry. From the telco perspective, it is a strong threat and a difficult strategic choice.
Cloud depends on scale and Telcos' investments generally lack scale, making 2000s and early 2010s investments quickly obsolete. Thus Telco cloud would require additional large investment from telcos, in a moment where funds are captured by FTTH and 5G deployment.

Combined with evident lack of expertise and scale in managed services; telco datacenter services often play at the bottom end of the value pyramid, e.g. co-location or Infrastructure as a Service. While Cloud Service Providers own the upper part with Platform as a Service and Software as a Service offers.
The growth of datacenters and the demand for more-managed service layers is squeezing many telcos out of the datacenter market. Thus, some telcos are clearly making the choice of leaving the cloud space and either carve-out, close or sell their existing infrastructure, such as Telstra or Deutsche Telekom. At the same time, some European operators are still investing, like Orange or A1 Telekom Austria.
Finally, most telcos pursue in parallel a partnership route with hyperscalers, trying to ally with them to leverage their dominant position on the traditional cloud market to build one in the edge cloud market to come. This is the case for TIM with a spin-off combined with a partnership with Google.

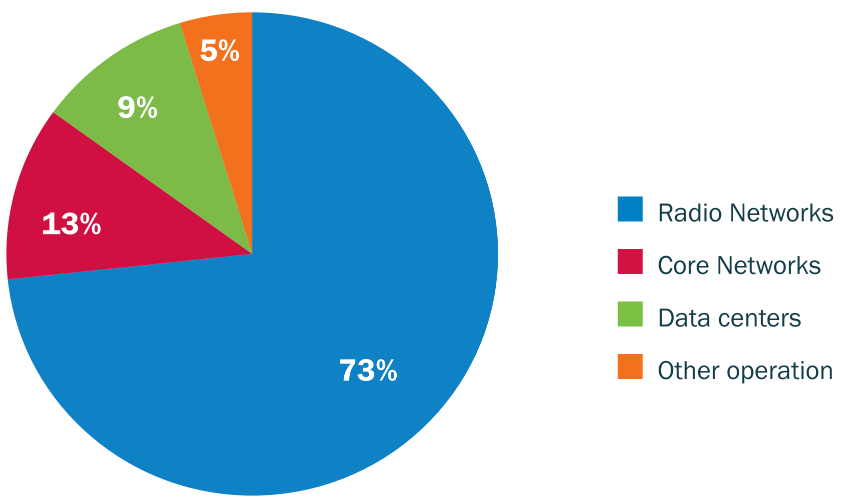
What future for carved-out companies ? An example of towercos evolution

Infrastructure is driving investment and will continue for many years to come. However, we anticipate some trends that will reshape this industry in the future that we will analyze in a further paper. Most of these trends will impact the Towercos landscape.

► Energy consumption issue will push for towers reduction

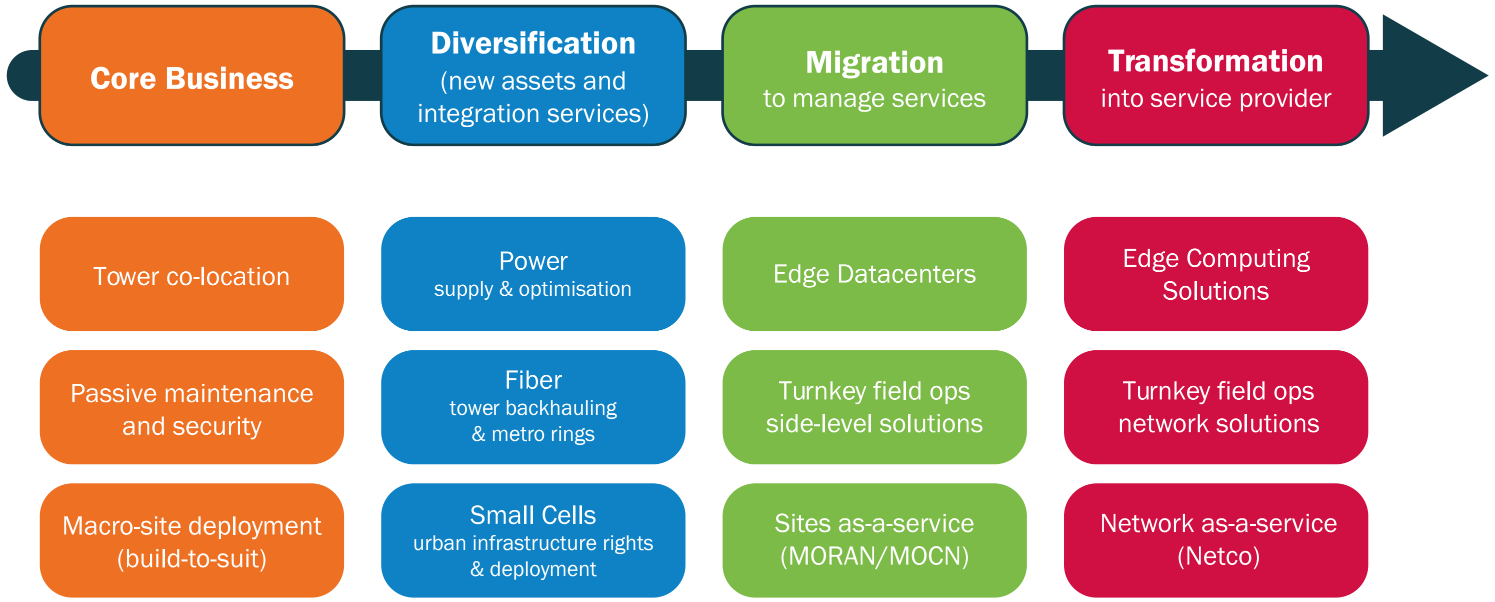
Mobile infrastructure equipment vendors claim that they provide new generation equipment that decrease significantly energy consumption per GB transmitted.

Figure 2 : Energy consumption breakdown by network element, 2021



Source: NGMN «Green Future Networks»

Figure 3 : the Towerco business model evolution path, from real-estate to netco



Source: Sofrecom Infrastructure Value Practice, 2022

However, they do not talk about the fact that deploying new generation technologies will lead to increased volume of data transmitted, processed and stored. The result would be dramatic increase in energy needs for digital infrastructure. Due to the increasingly strong issue around the availability, price and environmental impact of energy, this will introduce a new constraint in the evolution of mobile infrastructure. For the mobile infrastructure, where technology renewal is more frequent, the Radio Access Network represents 73% of overall network energy consumption.

Thus, reducing the number of towers and antennas to be deployed will become an objective, and the Open RAN technology will provide an answer as it will allow Telcos to extensively mutualize their radio access networks.

► Mobile Infrastructure overlap to progressively disappear

Towercos promote colocation and will also be instrumental in promoting OpenRAN and other active sharing technologies to protect the value of their assets. Doing so in a competitive environment with an abundancy of passive infrastructure – overlap is common in mature markets – will lead operators to colocate more, thus writing off the value of overlapping assets.

► Passive infrastructure companies to evolve their business model

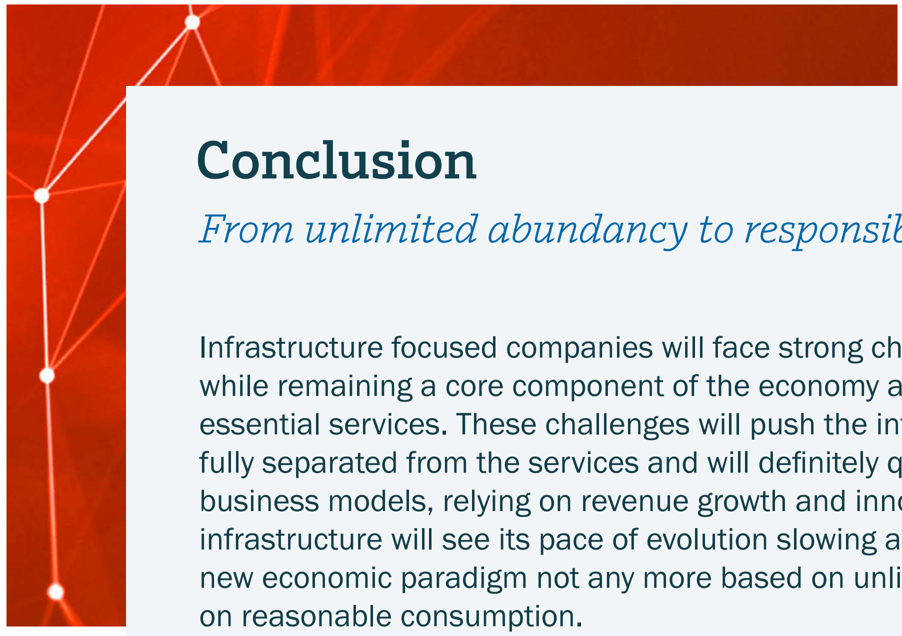
Once the consolidation phase of the industry achieved and the development of optimization through overlap write-off engaged, infrastructure companies like towercos will evolve their business model, from real-estate assets managers to infrastructure operators. They already have plans to do so (see figure 3 above)

From a pure financial perspective, this will lead to a decrease in ROIC (Return On Invested Capital) as operating an active infrastructure is a more Opex-intensive activity. This business model evolution will be less interesting to private investors and we expect Towercos to experience much more difficulties to finance their evolution than to finance towers base consolidation.

► Business model and market evolution to regulated monopolies, as the role of digital infrastructure evolve to utility

Given the critical, strategic and resilient nature of digital infrastructure, governments may want to retake control of network infrastructure, to avoid any dependency with foreign players, gain control to push optimization and provide guidance for its long-term evolution. Network infrastructure is obviously becoming a utility for the society and long-term sustainability becoming a critical factor.
In parallel, the decrease in private capital attractiveness of the sector will also be an opportunity and a driver for public investment to come back in the game.

This could result in the emergence of public-private models that would drive the ultimate phases of the consolidation of the sector. The state being the only legitimate player to lead to a utility-like regulated monopoly.



Conclusion

From unlimited abundancy to responsible consumption

Infrastructure focused companies will face strong challenges in the next decade while remaining a core component of the economy and a foundation for many essential services. These challenges will push the infrastructure to become fully separated from the services and will definitely question the existing business models, relying on revenue growth and innovation accelerators. Digital infrastructure will see its pace of evolution slowing and will have to adapt to a new economic paradigm not any more based on unlimited abundancy but rather on reasonable consumption.

Frédéric Doucet
Consulting Director, Sofrecom

Since 2012, Frédéric has been successively in charge of the commercial development of Sofrecom's Business Consulting activity, then of the operational support of Ethio Telecom, the leading African operator for the last 10 years, to then create and manage 2 practices.

He is in charge of 2 centers of expertise :

Telecom Infrastructure Value consulting services for :
- Telcos & MNOs
- PE Investment Funds, Banks and International Financing / Development Institutions
- Infrastructures companies (TowerCos, FiberCos...) and new players
- ICT regulation authorities

Strategy and M&A consulting services for :
- Investment Funds (Fintech, OTT, e-commerce, content services, security, B2B services)
- Telcos/MNOs and OTT strategy & Go-to-market
- Telcos/MNOs and ICT companies M&A projects (due diligence, business modeling and valuation, PMO)

Most significative recent related assignements:

- Mobile towers carve-out and launch of a multi-countries towerco
- Acquisition of a MNO by fixed telco to build a convergent operator
- Due diligence of a MNO for an investor take-over
- Due diligence and valuation of a regional towerco asset acquisition project for an international development institution
- Investment case of international telco in e-commerce and insurance independant companies
- Content provider go-to-market in Africa & Middle-East

Prior to that Frédéric worked for Orange Business Services, creating and developing the division in charge of ICT services around the network, notably through the acquisition and integration of several specialised IT service companies.

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