Towards pro-investment market structures in the telecom sector

A necessary condition to meet Digital Decade goals

Digital Public Policy, Regulation and Competition - Position Paper

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Content

Executive Summary

Europe's challenge to meet the Digital Decade goals

Europe is at a tipping point. Recovery, competitiveness, inclusiveness, and strategic autonomy have proven to be unpostponable issues that Europe must urgently address to emerge stronger. Europe faces the challenge of transforming its economic model based on a digital and green transition. With the start of a new investment cycle in the advent of 5G and future digital demand, Europe must seize the opportunity. Europe must focus on the long term and put in place the right policy framework to strengthen key strategic sectors and technologies.

The telecom sector is a strategic and key partner for Europe to emerge stronger

The telecom industry becomes a reliable and strategic partner for Europe to modernize infrastructures, drive innovation, foster inclusive digitization of society and businesses, accelerate the green transition of all sectors, and strengthen industrial ecosystems. Europe needs a strong and sustainable telecom sector to accelerate the uptake of technologies and the digital transformation of all sectors.

The bad news for Europe: The European telecom sector has a market structure issue

The EU telecom sector is highly fragmented at Member State's level. The current European regulatory and competition policy approach continues promoting artificial competition by increasing the number of players, and the preferential asymmetric treatment of new entrants. And this market fragmentation has become endemic by the rejection of in-market consolidation or the application of stringent remedies as condition for mergers, to preserve prices and number of players. The approach taken to introduce competition during the liberalization process in the 1990s has hardly changed, after the successful removal of entry barriers, and a complete swift in the competitive landscape of the digital ecosystem. This outdated approach after 25 years of liberalization of markets, is leading to unsustainable telecom market structures.

Consequences for the European telecom sector: a sector in decline putting at stake investment sustainability

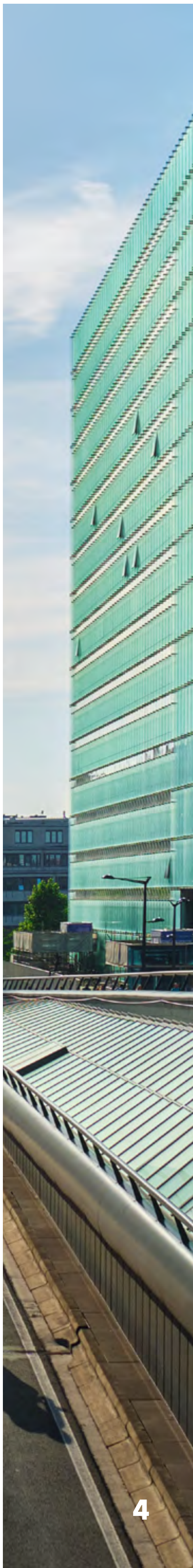
As a result, the value of the European telecom sector has been progressively reduced, weakening its competitive capacity, and jeopardizing the sustainability of future investments. Investors attribute the European telecom sector's deflationary revenues outlook and depressingly low returns to an overly artificially competitive and fragmented landscape. The decline in market capitalization of European telecom operators reflects the sector's difficult outlook compared to other regions peers. The future readiness of European networks could be at stake due to insufficient return on investment, below cost of capital.

Consequences for Europe: competitiveness, technological leadership, and social welfare at stake

This could have serious consequences not only for the sector, but also for the competitiveness of the European economy. Investments could and are already being redirected to other market sectors and geographies with more profitable telecom sectors, while undervalued European operators could increase their vulnerability to acquisitions by agents from third countries. Value destruction jeopardizes the sector's investment capabilities and is dramatic for Europe. It entails reduction of consumer welfare and a high risk of technological decapitalization, loss of competitiveness, strategic autonomy, and digital sovereignty. And a damaged telecom sector faces the challenge of investment to achieve Europe's ambitious digital goals for the decade. All this, in a context where 5G and digital autonomy may be game changers defining new paradigms as well as new winners and losers.

The good news for Europe: Europe is still on time to adapt the competition framework

To bend the tipping point towards a new path of sustainable growth and progress, Europe needs to take strong policy action to improve the telecom sector's investment climate. More telecom concentrated markets in Member States would better serve the consumer through sustainable competition and efficient investment in higher quality infrastructure, facilitating adequate returns on investment. Competition policy needs to be updated and focus on reducing barriers to consolidation in Member States, like other regions are doing; stop promoting the artificial competition; and focus on long term investment sustainability and non-quantitative factors instead of on short-term prices and market shares.



01

Europe’s challenge to emerge stronger, with the telecom sector as a key partner

Europe is at a tipping point. Recovery, competitiveness, inclusiveness, and strategic autonomy have proven to be unpostponable issues that Europe must urgently address to emerge stronger. Europe faces the challenge to transform its productive model based on a digital and green transition.

On March 2021, the European Commission presented a vision for Europe’s digital transformation by 2030, the EU Digital Compass, with ambitious targets, including *“covering all European households by a Gigabit connectivity network, with all populated areas covered by 5G”*.[1]

A higher ambition means that policymakers must go further in pursuing good investment outcomes. 5G brings a greater challenge, with operators having to invest in core, backhaul and radio access, and with a range of approaches to their disposal. The market’s record on 4G must not be taken as an indication it will deliver on 5G, where requirements on quality, security and services are much greater.

Telecommunications is Europe’s leading technology business, one of the few, with an added value of €141.5 billion per year[2] and a key asset. The telecom sector is building the infrastructures that are the foundation to digital and green transformation. Technologies provided by telecom operators, such as 5G, edge computing, cloud, cybersecurity, AI and IoT have redefined the way society operates and interacts, paving the way for the metaverse, the web3 and the new era of digital innovation.

The telecom industry remains a reliable and strategic partner for Europe to modernize infrastructures, drive innovation, foster inclusive digitization of society and businesses, accelerate the green transition of all sectors, and strengthen industrial ecosystems. And the sector is also key to help Europe seize the opportunity of 5G and play a relevant role in the new digital era.

The sectors’ commitment to bring progress and welfare to all Europeans, has translated into strong annual investments, around €50 billion in CapEx[3]. However, the European Telecom sector is in decline. Investors attribute the European telecom industry’s deflationary revenues outlook, and depressingly low returns, to an artificially competitive and fragmented landscape, which is weakening the industry’s investment capabilities putting at risk bringing Europe’s digital and green transition on time.

02

The market structure issue of the European telecom sector

An artificially competitive and fragmented landscape

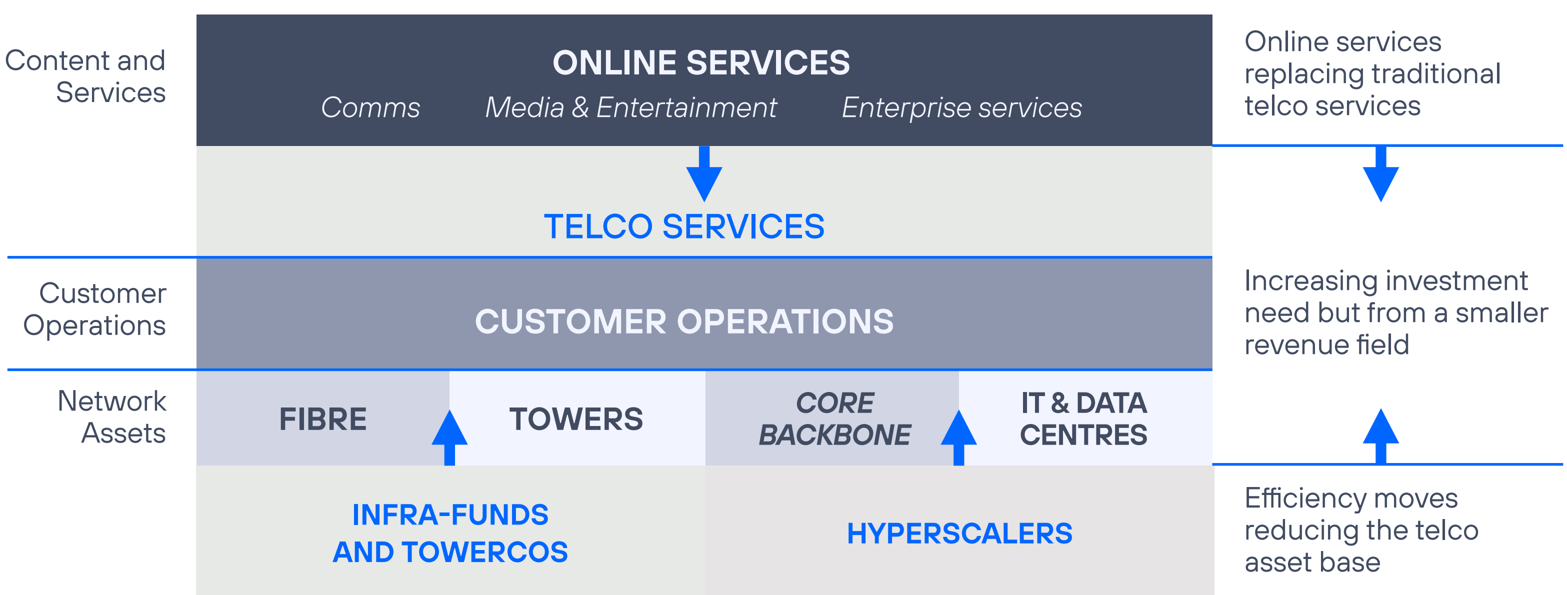
The telecommunications liberalisation process carried out in the 1990s required a framework that would facilitate the entry of new competitors into the European market. To that end, the policy approach was set with an initial focus on traditional telecom services pricing and on increasing the number of competitors.

The liberalization process was a success. However, 25 years later the sector is nothing like the one that faced the liberalization process. New competitive market dynamics have unfolded in services and contents, networking and computing platforms and physical infrastructures.

At service level there is an increased competitive intensity not only between traditional local telecom services, but also from other global players, leveraging different business models. Traditional revenues are being cannibalised by non-telecom agents[4]. At the networking level, operators, cloud service providers (virtualization), and new agents offering private network services compete.

At the physical infrastructure level, operators, and wholesale telecoms infrastructure players like towerCos are competing as providers, while data centre agents are integrating into infrastructure service provision, acquiring local assets.

Figure 1. New competitive dynamics in the digital ecosystem



Source graphic: Telefónica based on GSMA-Kearney "The Internet value chain 2022", May 2022 [Internet-Value-Chain_2022.pdf (gsma.com)]

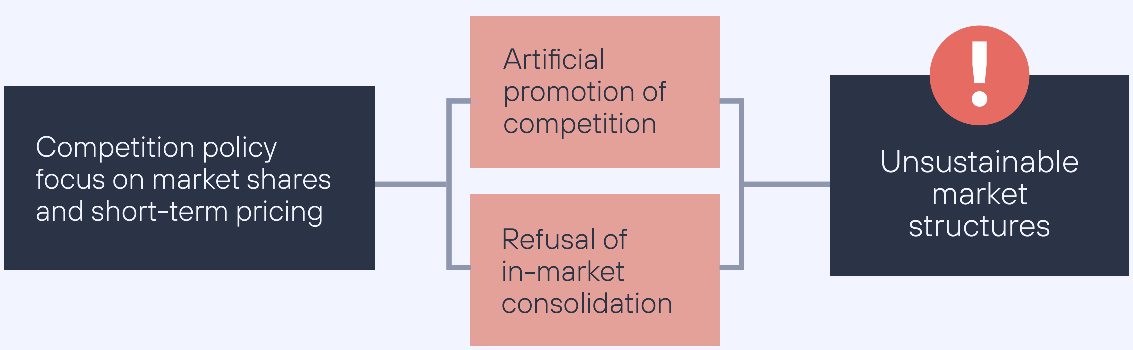
At a time when a greater load is being placed on internet connectivity infrastructure, traditional business model is being squeezed by new competition

And, after 25 years, Europe is characterized by highly fragmented markets at country level, strong but artificial competitive dynamics, and market maturity. That has nothing to do with the sector that faced the liberalization process. And however, the European competition policy has hardly changed its objectives and approach to the sector, maintaining a situation designed for a liberalisation process that ended decades ago and for a market dynamic that has shifted, while other regions have adapted their practice.

The competition policy debate in European telecom market structures

In Europe, the debate on telecom market structure and market consolidation has mainly focused on the potential negative short-term price effects of reducing the number of operators at Member State level, leaving aside important non-quantitative factors and considerations such as innovation, quality of service, network coverage, long-term efficiency, sustainability, level-playing-field and user experience.

The current European competition policy approach continues promoting artificial competition by increasing the number of players or the preferential asymmetric treatment[5] to new entrants. And this market fragmentation has been increased by the rejection of in-market consolidation in Member States or by the application of stringent remedies bringing back artificial market structures. This outdated approach, focused on prices and shares after 25 years of effective competition, is leading to unsustainable telecom market structures. The distortions of market structures caused by this practice can be seen in Spain and Portugal.



In Spain, in mid-2015, the conditions imposed by EU competition authorities to clear the acquisition of Jazztel by Orange, allowed MásMovil to acquire Jazztel's FTTH network in favourable conditions and access to Orange's fixed broadband network and mobile national roaming. MásMóvil became the fourth integrated player. Four years later, MásMóvil sold the network to investment funds with great capital gains[6]. Since its IPO in 2012, its shares had a dizzling evolution from 0.77 euro to 22.46 euro in 2020[7] (~30x), year of MásMóvil buyout by non-EU funds[8]. All this within a declining telecom market in Spain, where 36% of revenues have been destroyed since 2010[9].

In Portugal, a three-MNO market in 2021, the regulator Anacom aimed to attract new entrants via its spectrum auction by offering a price reduction for new entrants, reduced coverage obligations and roaming rights. As a result of the auction, two new operators NOWO (Spanish MásMóvil group) and Dixarobil have entered the market.

And this market fragmentation has been increased by the EC's rejection of in-market consolidation operations from four to three mobile network operators (e.g. O2-3UK merger attempt of 2016) at national level, or by the application of very stringent remedies (e.g. the Italian merger of Three-Italy and Wind). Interesting to note that in May 2020 the European General Court annulled the decision to block the O2-3UK merger citing perceived errors in the analysis.

Despite consolidation attempts, the global number of four-player markets has been almost unchanged. This practice contrasts with the US approach where the merger T-Mobile-Sprint, two giant Telcos, was cleared in April 2020. The consolidation of four to three operators in the US adds evidence to the need for scale in the local market. The merger resulted in a stronger operator: in 2018, when the merger was announced, T-Mobile was the 12th biggest world operator by market cap. In February 2022, it is the number 4[10]. In about three years, T-Mobile-Sprint has created a value equivalent to the combined market cap of Telefónica, Orange and Telecom Italia[11]. Or, in other words, the merger has created in almost three years three main European operators, with the consequent creation of value for consumers and society. A merger of this size in an EU Member State would be unthinkable, as would a value creation of that magnitude in such a short time by a European operator. According to OECD[12], blocked mergers declined in all regions except Europe, where their number rose from 7 in 2018 to 18 in 2019 (vs. 6 blocked in the US).

This is having serious consequences not only for the sector, but also for the competitiveness of European economy and the welfare of its citizens and businesses. The European operators lack in-market scale compared to their US counterparts. According to JPMorgan[13], *seven out of the top nine largest European Telecoms markets are characterized by four network-based competitors, and only two have "just" three. This is before even considering the plethora of non-infrastructure-based competitors i.e. MVNOs.*

In a shrinking market, in-market led consolidation is key for efficiency and sustainability, as shown in next sections. The current competition policy approach is leading to unsustainable market structures, destroying the European sector's value, reducing its competitive capabilities, and jeopardizing the sustainability of future investments, key to progress and competitiveness.

03

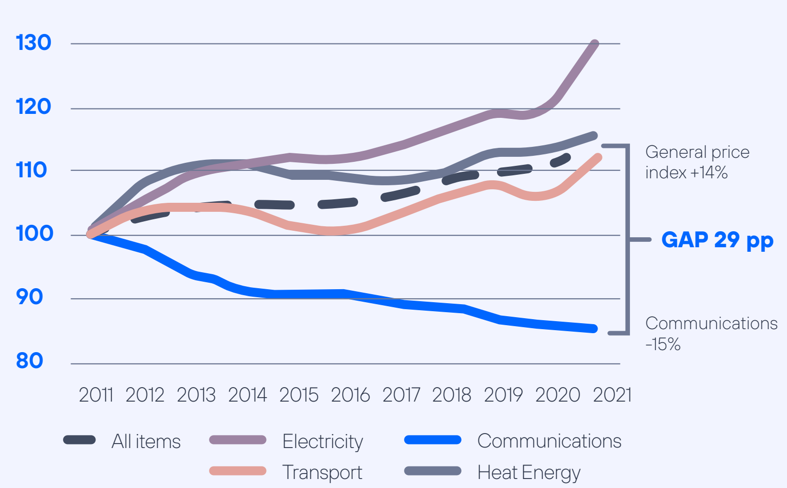
The consequences of unsustainable market structures

A European telecom sector in decline putting at risk investment sustainability

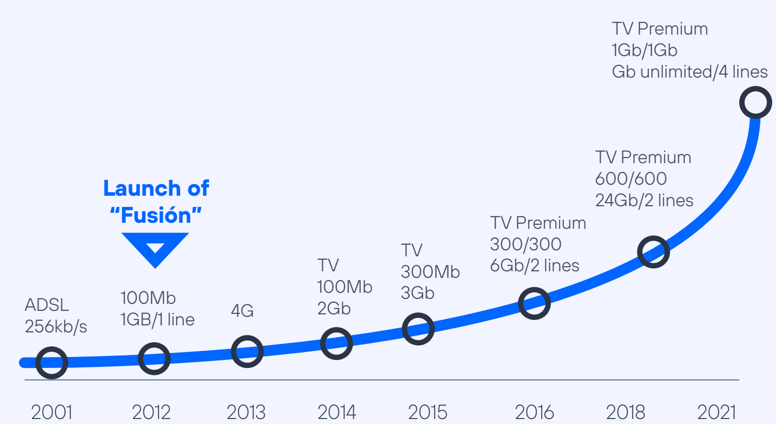
The European telecommunications prices evolution reflects the traditional competition policy focus on prices. The sector has been under deflationary pressure for more than two decades, unlike other sectors[14], while increasing network performance, expanding its portfolio, and enhancing offerings with new features (see Figure 2). All this in a challenging environment to monetize data and of increasing network and content costs (e.g. due to unlimited data and voice flat rates and data traffic growth), in contrast to other regions. ARPUs in Europe are about half of ARPUs in the United States in 2020, both in fixed broadband (€21.5 vs. €49.1 in the US) and mobile (€14.4 vs. €37.9 in the US).[15]

Figure 2. Continued deflation in the EU telecommunications sector, in contrast to other sectors, and despite improved service and quality

Deflationary pressure in European telecom sector markets reflecting the traditional competition policy focus on prices
EU28 (EU27 from 2020) – Harmonized Index of consumer prices (HICP; Year 2011 = 100)[1]



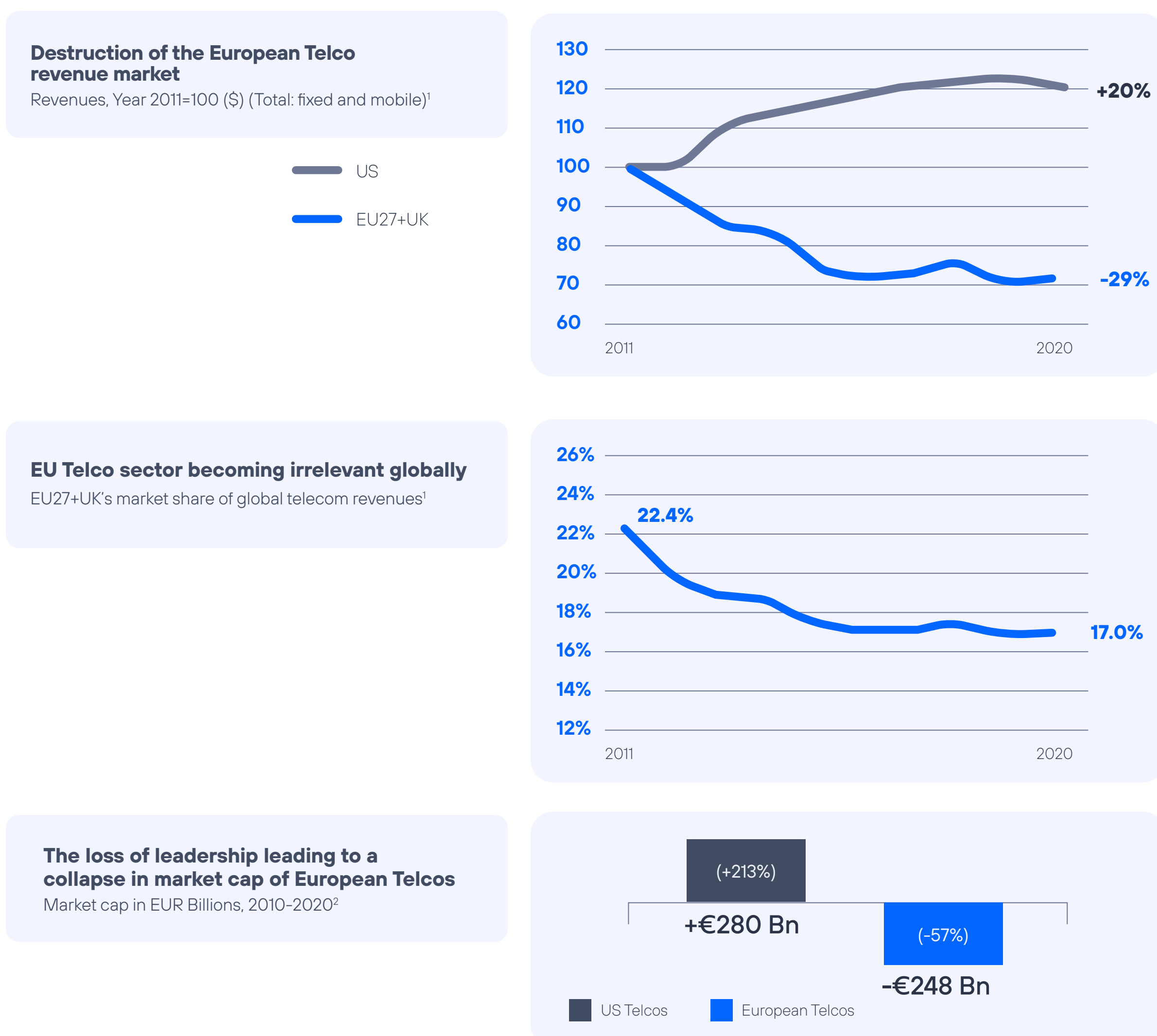
Telecoms' offer to customers: "more for less", within a context of permanent deflationary pressure
(e.g. Offer evolution of "Fusión", Telefónica Spain)



[1] Telefónica based on Eurostat (Data retrieved January 26, 2022)
Statistics | Eurostat (europa.eu)

Almost a third of the European telecom revenue market has been destroyed in the last decade, while in the US, it has increased a 20%. The different evolution shows that this trend in Europe is not just due to technological evolutions (e.g. OTT services is a global phenomenon). The European telecom sector is becoming irrelevant, with a shrinking share in the global sector's revenues market which is almost 6 percent points lower than a decade ago[16]. This loss of leadership is leading to a collapse in the market capitalization of EU Telcos: while over €280 billion has been created by the US operators since 2010, around the same value has been destroyed in Europe[17].

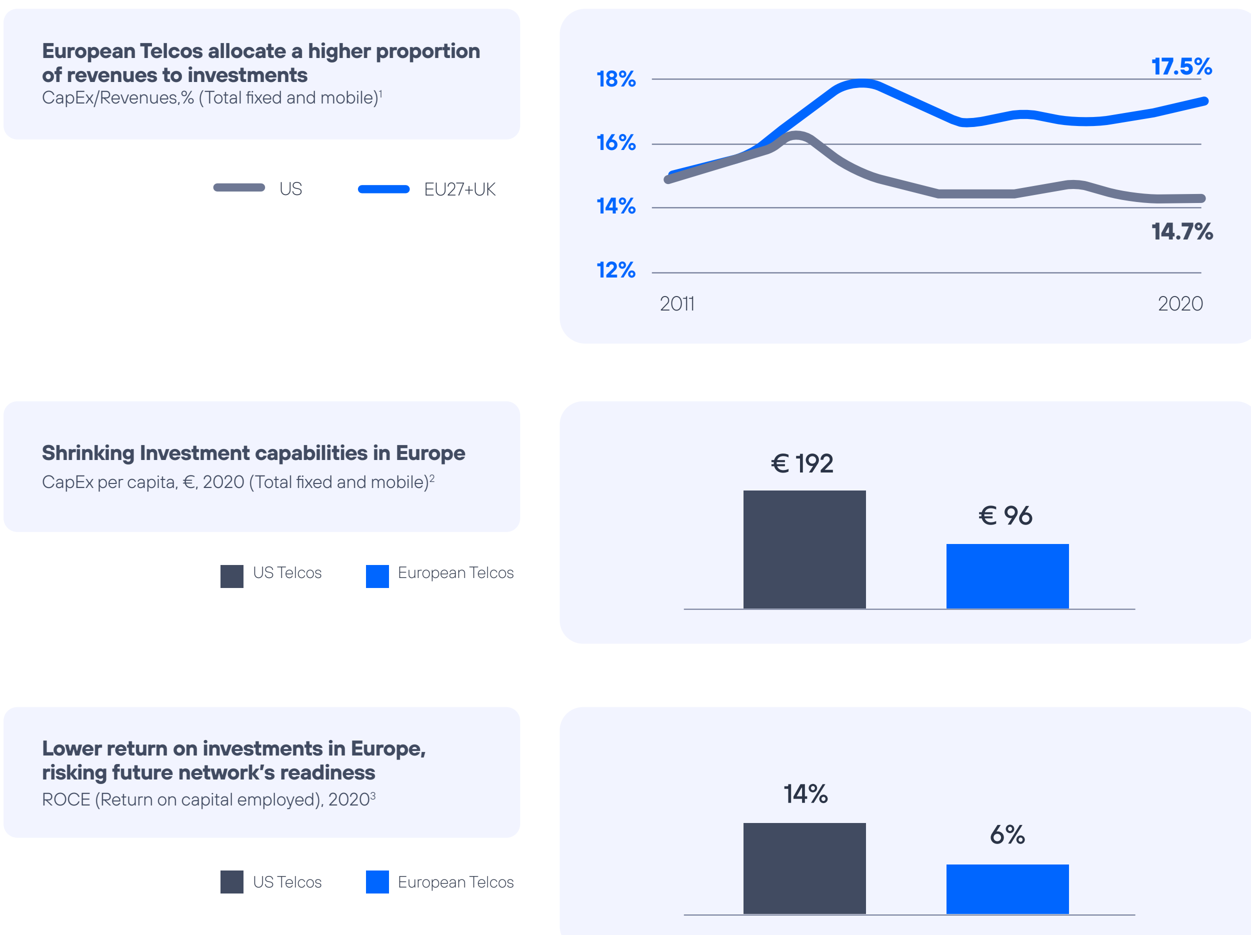
Figure 3. The European telecom sector is witnessing a growing global disadvantage



[1]Telefónica based on Omdia, "Communications Provider Revenue and Capex Tracker – 3Q21" (Released January 20, 2022)
[2]Market cap from 05.08.2010 til15.08.2020 (indexed) ETNO, "Connectivity & Beyond", March 2021. https://etno.eu/library/reports/96-connectivity-and-beyond.html
(US Telcos: TMUS, Sprint, AT&T, Verizon (VZ), Charter, Altice USA, Comcast; EU Telcos: British Telecom, Liberty Global, Orange, Telefónica, Telecom Italia, Vodafone)

Investors have long blamed the European telecom industry's deflationary top-line outlook, and depressingly low returns, on an artificially competitive and fragmented landscape[18], which is weakening its investment capabilities. Investment intensity in Europe is bigger than in the US, meaning EU Telcos allocate a higher proportion of revenues to investments (ca. 20% higher on a 5-year average). However, EU Telcos' investment capabilities, in terms of per capita, are half that of US Telcos, due to lower ARPUs and higher capital intensity, yet lower returns (ROCE 6% vs 14% in the US in 2020[19]). The US telecom market enjoys greater sustainability: better revenues evolution, lower ratio of investment over revenues (investment intensity), higher ratio of investment per capita (investment capabilities) and higher return on investment (investment sustainability).[20]

Figure 4. Shrinking investment capabilities of the European Telecom sector



[1]Telefónica based on Omdia, "Communications Provider Revenue and Capex Tracker – 3Q21". Released January 20, 2022.
[2]ETNO, "The State of Digital Communications 2022". February 2022. https://etno.eu/library/reports/104-state-of-digi-2022.html
[3]Major Telcos in France, UK, Germany, Belgium, Spain, Italy, The Netherlands, Sweden. JP Morgan, 2020.

The European consumer and social welfare at stake

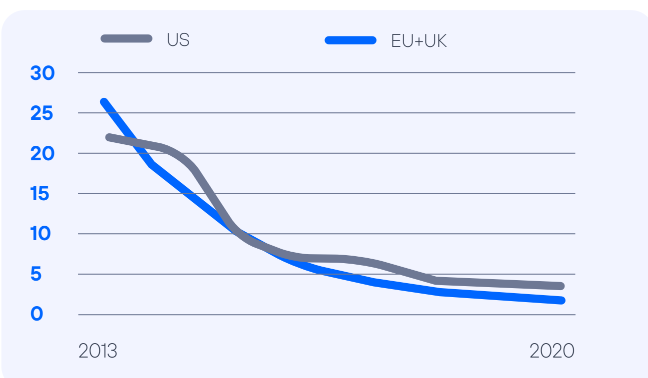
The market structure in Europe is the result of the focus of Regulatory and Competition authorities on fragmentation as a prerequisite for competition, and on short term telco prices as the main indicator of the consumer and social welfare created by the sector. The European market structure has led to lower prices but, paradoxically, less data traffic consumption than the US. In contrast, US consumers are more "digitised", in the sense that they use their connectivity more intensively.

A market dynamic focused on competition in quality rather than competition in price has resulted in higher revenues and greater incentives to invest in quality enhancements. As seen in Figure 4, US operators invest considerably more CapEx per capita than European operators due to higher revenues, and consequently this translates ultimately into higher broadband usage (see Figure 5).

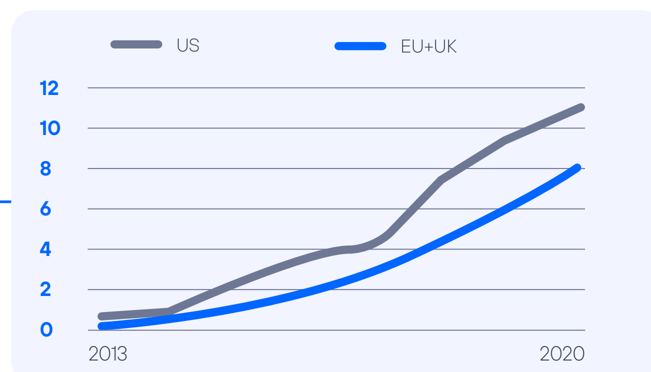
In sum, the narrow focus on price is leading not only to an unsustainable industry structure, but it is also failing to deliver the purposed higher welfare. Driven by higher usage, there is evidence that the US mobile market creates more welfare than the European one, despite higher prices.

Figure 5. Market structure in the US has led to much higher consumption of connectivity and digital services, and therefore higher consumer welfare, considering prices have been reduced in both regions

PRICE: Price per GB has been reduced in both regions, more in Europe
Mobile Data traffic Price (USD) per GB/month[1]

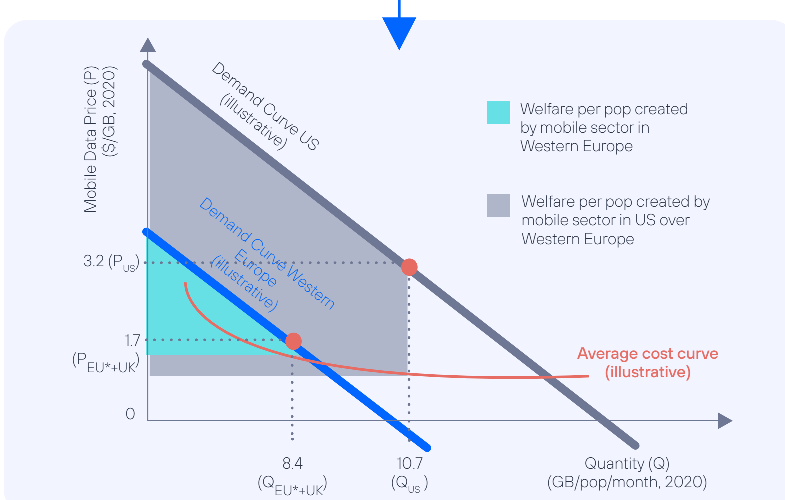


DEMAND: Data traffic consumption has increased more in US
Mobile Data traffic GB/pop/month[1]



DEMAND CURVES: Higher welfare creation by the telco sector in the US

Mobile Data traffic:
-Price (USD) per GB
– Quantity GB/pop/month



[1]Telefónica based on Analysis Mason, 2022.
NOTE: EU27, excluding Malta and Cyprus due to lack of data availability.

European's competitiveness, technological leadership, and strategic autonomy jeopardised

As a result, Europe's future network readiness could be at stake due to insufficient return on investment. Investments could be further redirected to other geographies with more profitable telecom sectors, while undervalued European operators could increase their vulnerability to acquisitions by third countries. This has already become a reality. By the end of 2021, Deutsche Telekom, one of Europe's leading operators, has divested its Dutch unit in favor of its US unit T-Mobile, reinforcing the German group's transatlantic focus[21], while Telecom Italia has received a takeover offer from U.S. fund KKR[22].

The destruction of value jeopardizes investment sustainability and is dramatic for Europe. It entails a high risk of technological decapitalization, loss of competitiveness and strategic autonomy.

A damaged telecoms sector faces the challenge of investment to achieve Europe's ambitious digital goals for the decade. EU Telcos are building the infrastructures that are the foundation to digital and green transformation. ETNO/BCG estimates that it will require an additional €150 billion to upgrade fixed infrastructure to gigabit speeds and €150 billion to a full 5G deployment in Europe[23]. Despite investing 52.2 billion euros in fibre cable networks and fast speed 5G in 2020, the European telecoms sector still lags behind global peers[24].

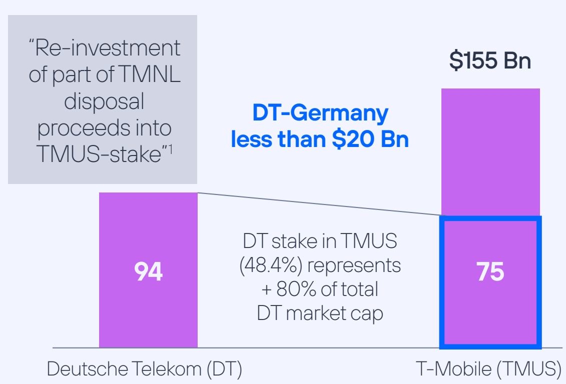
The rise of a new era of digital services innovation, driven by the metaverse, overlapping the digital and the real world thanks to technologies like augmented reality, virtual reality, simulation, or immersive technologies, will bring further pressure to sector's investment capabilities to cope with new demands. It also will challenge Europe's ability to stay relevant in the coming disruptive digital era, by safeguarding open access to new digital markets. 5G and future technologies will be a game changer defining new paradigms, as well as new winners and losers.

Europe needs sustainable telecom market structures to build efficient telecom operators able to achieve Europe's connectivity and digital leadership vision. Strong policy action should be taken to improve the investment climate, allowing a market led sector reorganization to achieve sustainable telecom market structures.

Figure 6. EU Telcos divesting in Europe to the US

Deutsche Telekom (DT) benefits from the value creation in T-Mobile US (TMUS), reorientating investments towards the US

Market Cap in USD billions, February 22, 2022



¹Telefónica based on Bloomberg, February 22, 2022; and DT Media and Investors call, September 2021

04
Time for Europe to adapt its competition policy approach to market realities

To bend the tipping point towards a new path of sustainable growth and progress, Europe should evaluate which comes first: a) supporting artificial competition to achieve low short term prices and market shares, in a overly competitive market despite destroying value and increasing pressure on the investment capabilities of the telecom sector, OR b) focusing on the long term and promoting sustainable telecom market structures to enhance the sector's investment capabilities to achieve Europe's digital and green leadership vision.

The telecom sector advocates for promoting sustainable market structures in Member States. More concentrated telecom markets in Member States would better serve the consumer through sustainable competition and efficient investment in higher quality infrastructure, facilitating adequate returns on investment. To achieve Europe's leadership vision competition policy needs to be aligned with sectoral regulation, industrial policy, and trade policy, and needs to be updated.

A call to action

Europe needs sustainable Telecom market structures to achieve its connectivity and digital leadership vision

Focus on dynamic efficiencies
Dynamic efficiencies such as innovation, quality, long term investment cycles instead of short-term prices and country-level market shares expectation

Stop promoting artificial competition
Stop the artificial and asymmetric support of new entrants after 25 years of competition in a current highly competitive market

Reduce barriers to in-market consolidation
Allow a market led sector reorganization and take a more flexible and certain approach to horizontal innovation partnership

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[3] Average 2015-2020. ETNO, The State of Digital Communications 2022. https://etno.eu/library/reports/104-state-of-digi-2022.html

[4] As an example of how old services are cannibalized, in October 2021, Facebook services failed. In Spain, the fall caused an increase of more than 10 times in SMS during the affected interval and a 29% increase in mobile voice in the busy hour.

[5] Examples of preferential treatment to new entrants: spectrum set-asides, dedicated spectrum to verticals under unlevel-playing-field, MVNO price regulation, national roaming obligations, access obligations.

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[10] In terms of market cap after Verizon ($255Bn); AT&T ($170Bn); Comcast ($211Bn). Telefónica based on Bloomberg, April 16, 2018 and February 22, 2022.

[11] $83 billion was the combined market cap of T-Mobile and Sprint in April 2018, when the merger was announced. In February 2022, its value is $155 billion (i.e. +$70 billion of value creation). The created value is equivalent to the combined market cap of Telefónica ($28Bn). Orange ($33Bn) and Telecom Italia ($9Bn). Telefónica based on Bloomberg, February 22, 2022.

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[14] Telefónica based on Eurostat, 2022. Eurostat - Data Explorer (europa.eu).

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[17] Market cap from 05.08.2010 until 15.08.2020 (indexed) ETNO, Connectivity & Beyond. March 2021. https://etno.eu/library/reports/96-connectivity-and-beyond.html (US Telcos: TMUS, Sprint, AT&T, Verizon (VZ), Charter, Altice USA, Comcast; EU Telcos: British Telecom, Liberty Global, Orange, Telefónica, Telecom Italia, Vodafone).

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[19] Major Telcos in France, UK, Germany, Belgium, Spain, Italy, The Netherlands, Sweden. JP Morgan, 2020.

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