

TELECOMS OUTLOOK 2021

Corporates, Scope Ratings GmbH, 8 February 2021. The credit outlook for European telecommunication operators remains stable. The sector showed its resilience during the Covid-19 crisis. Revenues, capex will hold steady even though 5G is making the headlines

Executive summary

The credit outlook for European telecommunication operators remains stable, with the sector displaying considerable resilience during the first phase of the Covid-19 crisis. The progressive introduction of 5G networks is neutral for credit quality.

Governments postponed several auctions of 5G spectrum in 2020. Operators will likely incur the cost of acquiring spectrum this year but it will remain well within their financing capacity in the absence of new entrants in national markets to bid up auction prices. We see limited opportunities for large mergers and acquisitions while operators will continue to sell infrastructure assets, leaving the sector's overall credit quality unchanged despite a likely slow, uneven economic recovery.

The main trends we expect for 2021 are:

- Stable revenues and margins despite the economic disruption caused by the pandemic: telecommunications are essential services which make up a modest percentage of household spending.

- Auctions of 5G spectrum should lead to sales at reasonable prices partly through the absence of new entrants in the mature mobile market which would otherwise push up prices. Capex will not increase as 5G is rolled-out as operators are simply replacing previous technologies (2G, 3G) and reducing spending on 4G. Any increase in capex will be rather driven by investment in fibre-to-the-home (FTTH).

- M&A will remain limited. Transnational deals offer few synergies, while national "consolidation" will be rare as

targets are scarce, for fixed-line operators, or out of bounds for mobile on competition grounds.

- Selling or listing infrastructure assets in part or in whole – mobile towers and fibre networks – should help operators raise funds to protect their credit quality amid the broader economic uncertainty.

Key trends for 2021

In an industry characterised by its stability, we expect no significant changes in 2021 for European telecoms operators compared with last year. The Covid-19 crisis has demonstrated, once again, that the industry is almost immune to economic cycles, as telecom services have become indispensable while representing a small proportion of a typical European household budget – about 2.5% – and thus less exposed to downward pressures on consumer spending.

The roll-out of 5G mobile technology is still making the headlines, as the pace of introduction varies from one country to another: 5G trials, spectrum auctions, network roll-out, service introduction, new handsets, search for a "killer application"... But beyond the hype, the impact on revenues and capex will not be significant. Capital expenditure continues to increase slowly, driven in 2021 by further investment in fibre networks around Europe. M&A will remain limited with few opportunities in such a mature market. European telecom operators will continue to bolster their credit profiles mostly from the full or partial sale of infrastructure assets such as mobile towers and some fibre networks.



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Stability proven in the Covid-19 crisis

The telecommunications operators have demonstrated the fundamental stability of their business during the Covid-19 crisis to date. Revenue figures published by several European regulators for the nine months to end- September showed little change from the same period in 2019, particularly in comparison with the scale of the economic shock and recessions across Europe.

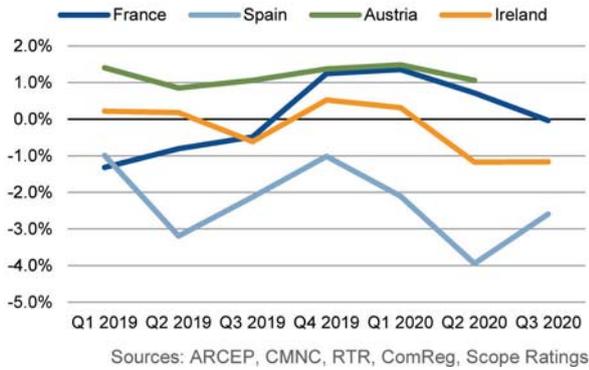


Figure 1. European telecoms revenues for select countries (% change, Q1-Q3 2020 vs 2019)

In terms of profitability, some operators recorded improved margins in Q3 from the same quarter a year ago despite subdued international tourism in Europe during the summer when the companies typically benefit from an increase in mobile roaming fees. In addition, nearly all operators have maintained their sales and earnings guidance for 2021. The recent trend of stable profit margins remains intact despite the economic impact of the pandemic.

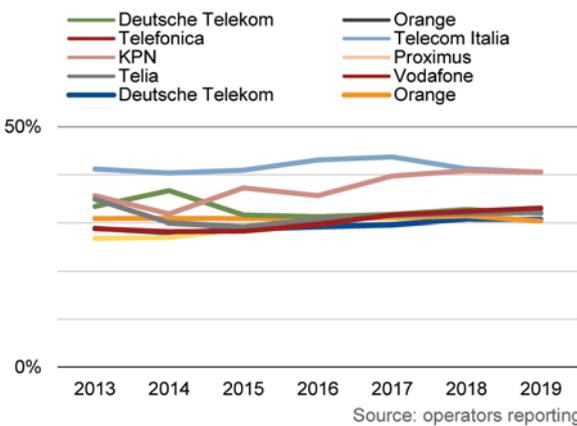


Figure 2. European telecom operators' reported EBITDA margin, 2013-2019

Also noteworthy is the operational resilience of Europe's industry which experienced no network failures despite the increase in traffic during the lockdowns and the shift toward remote working. Helping operators cope with the rise in usage was that the surge in traffic took place mostly during the day when usage was usually low, pre-pan-

dem, rather than in the evening, typically the period of peak usage.

Operators are at risk of a more material adverse impact from the pandemic should further economic disruption, as governments reimpose various restrictions to contain Covid-19, trigger more bankruptcies and business closures. Offsetting that risk is growing digitalisation of corporate activity, accelerated by the pandemic and pressure on business to cut costs. We believe that, overall, the impact of a second phase of coronavirus infections would be negligible.

Delay in 5G auctions: delay in outflows for operators

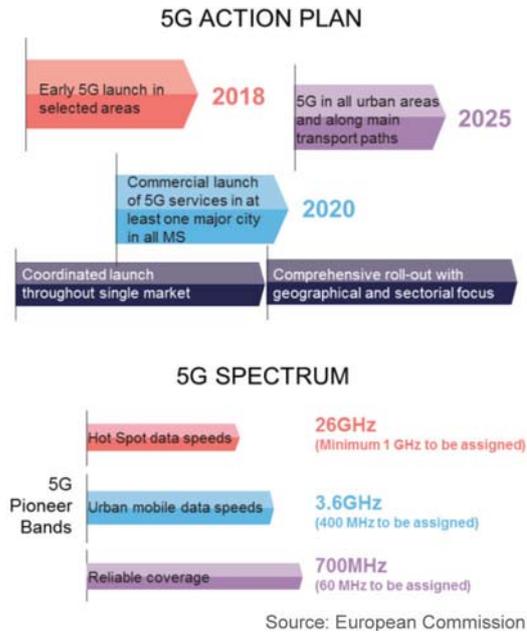


Figure 3. EU original framework for 5G roll-out

The second, indirect, effect of the Covid-19 crisis was the delay in planned 5G auctions in many European countries last year: Poland, Romania, Spain, Sweden and the UK. In France, the auctions were delayed, but finally took place in the second part of the year. In some instances, operators chose to launch 5G in 2020 over spectrum bands already in use (2 GHz spectrum, for instance).

Most of these auctions will now take place in 2021, with the notable exception of Netherlands that only auctioned 700 MHz spectrum in July 2020; the 3.5 GHz spectrum - this band typically is the most costly 5G band due to its width and ability to deliver higher speeds - is due to be auctioned in March 2022.

Paying for 5G: auction prices expected to remain reasonable

The main 5G-related issue for the sector's credit outlook will still be the outcome of spectrum auctions in the coming quarters. As we anticipated a year ago, 5G auctions have not led to fierce bidding and exorbitant prices as ini-

tially was the case in Italy in 2018 and in Germany in 2019. We believe the main reason for the elevated auction prices in Italy and Germany was the participation of new bidders – Iliad SA in Italy and 1&1 Telecommunication SE in Germany. In 2020, there were no auctions with a new entrant. In Hungary, smaller operator Digi PLC tried to join the auction, but the regulator rejected its application.

We expect no new entrants in any of Europe's biggest markets to compete for spectrum this year: the industry is mature with mobile penetration in Europe around 130%. Please see Figure 9 for the results of the latest auctions (including Italy and Germany) and our expectations for the forthcoming ones in the largest countries in Europe representing about 80% of the EU market. The only exception is Portugal, where the regulator opened the door for a new entrant, the Spanish group Grupo MasMovil.

At the time of writing, bids in auctions currently underway remain reasonable.

Mobile capex stable even with 5G

The introduction of 5G services in Europe will lead to no significant increase mobile capex in the coming years. The 5G investment replaces spending on older technologies 2G, 3G and diminishing investment in 4G and involves the re-use a significant part of existing infrastructure including masts and backbone networks and benefits from lower equipment prices as the technology matures.

Most operators have stopped reporting separate spending on mobile and fixed segments, so the best way to illustrate the trend is the reported mobile capex, excluding spectrum, in the French market disclosed by the French regulator (Arcep) over the past 15 years. In this period, mobile capex remained pretty stable, with an average annual level of EUR 2.5bn – with a low of EUR 2bn in 2010 and a peak of EUR 3.3bn in 2006 – even while various technologies (3G, 3G+, 4G, 4G+...) were successively rolled out.

This stability persisted despite the introduction of a new fourth mobile operator (Free Mobile in 2012) and a massive jump in network usage: voice traffic multiplied

2.2 times over the period, SMS traffic multiplied 13 times and data traffic more than 40,000 times. This trend is not unique to France. Similar data are available in other European countries including Finland and Italy.

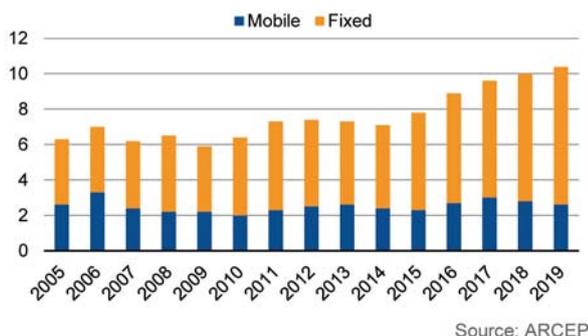


Figure 4. Fixed and mobile capex in France, 2005-2019 (EURbn)

Revenue impact of 5G likely modest

We expect that 5G will not increase mobile revenues, following the pattern with the introduction of 3G and 4G. The newer technology simply replaces the preceding technology. For instance, it is nowadays almost impossible to buy a 3G mobile phone. We just buy a "mobile phone" equipped with the technology of the day, currently 4G. As 5G spectrum has not been fully allocated in Europe, 5G handsets are still rare and relatively expensive. The 5G network roll-out will take at least five years to offer full coverage so 5G adoption will be slow and progressive. In Finland, the first European country to allocated 5G spectrum (3.6 GHz spectrum allocated in September 2018), the leading operator Elisa only introduced commercial 5G service in July 2019, with coverage of the Finnish population of only 35% as of December 2020. We note also that Elisa first reported the number of 5G subscribers with its Q4 2020 results which, at nearly 200,000, represented 5% of Elisa's mobile customers in Finland – 18 months after commercial introduction.

Recently, in France, Free Mobile introduced a 5G service as part of its normal plans, without any specific tariff plan, or price premium. It is sold as what we expect 5G will be sold everywhere in future in Europe: simply a "mobile service". We guess that by this time, European operators will be hyping 6G.

Fixed revenues will continue to decline in Europe, as the sharp drop in fixed telephony (typically – 15% per year) is no longer compensated by the now slow increase in broadband revenues. Total telecoms revenues in Europe will be at the best flat, or more probably, slightly declining. We note that many European telecom operators have stopped giving revenue guidance.

Capex mostly driven by further fibre (FTTH) roll-out

Telecoms spending in France (Figure 4, above) shows very clearly that the key driver for capex is investment in the fixed network. Fixed capex in Europe peaked in the late 70s and early 80s and started to decline fast when the copper-wire networks were fully built. The next 25-30 years were ones with almost no capex in the copper local loop which typically represent about 70% of the cost of fixed networks, except some marginal investment, such as DSL at about EUR 100 per line, which allowed operators to offer early broadband services using the existing copper network.

The move to fibre broadband is driving the increase in telecoms capex in Europe, progressively replacing the old copper network, which is starting to be decommissioned. The relation of fixed capex increases with the fibre investment cycle is well illustrated by the following chart (Figure 6), comparing total fixed capex in France with the number of FTTH (fibre-to-the-home, the most complete, and expensive, fibre network structure) lines installed. We estimate that at the end of 2020, there were around



Figure 5. Fixed capex (EURbn) and number of new FTTH lines installed (m) in France, 2005-2019

23.5 million FTTH lines available, of which 10 million were in service, representing about 33% of the total broadband customer base in France.

But the advance of fibre varies significantly among EU countries. Among large European economies, Sweden, Spain, Romania, Norway, and Portugal are the most advanced in term of fibre roll-out, as shown in the latest set of figures from the OECD.

To move to high-speed broadband, some operators have preferred to roll-out intermediate technologies (VDSL, G-fast, vectoring,...) using existing copper networks or rely on a limited fibre roll-out (fibre-to-the-node or fibre-to-the-curb or FTTC), allowing them to limit capex. The OECD chart above includes only FTTH as fibre. The fibre-lite approach is now under consumer and political pressure in countries where operators pursued it. These companies are now belatedly announcing more FTTH spending, suggesting capex will rise in the years ahead.

Proceeds from tower, fibre-network sales to underpin credit quality

Asset sales remain an important part of reorganisation of the Europe industry, playing a far more important role than largescale M&A. Previously, operators have sold foreign subsidiaries in emerging economies as the local telecoms businesses are starting to mature as Europe began to 15 years ago.

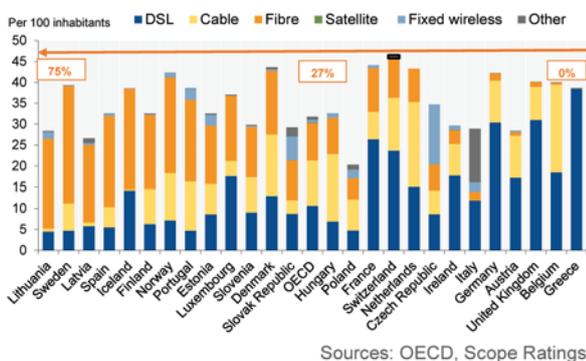


Figure 6. European OECD countries broadband penetration (%), ranked by FTTH share of subscribers (December 2019)

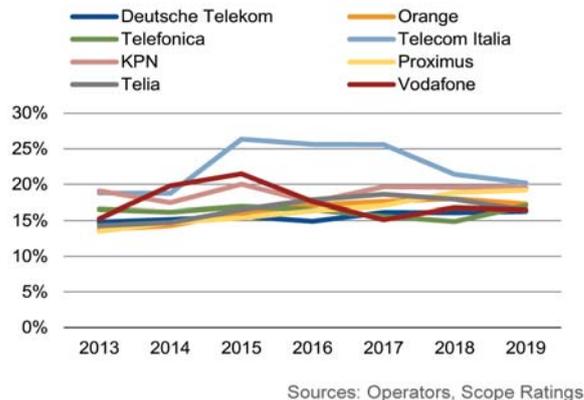


Figure 7. European telecoms operators' capex (excluding spectrum) as % of revenues, 2013-2019

Today, European telecoms operators are focused more on selling infrastructure, including mobile towers where they have created an active market, and parts of their fibre network. The buyers tend to be specialised companies (tower companies) or financial investors such as private equity and investment funds.

Among the most important asset disposals last year was Hong Kong's CK Hutchison Holdings Ltd.'s sale in September of about 25,000 towers in Europe (UK, Italy, Austria, Ireland, Denmark, Sweden) to Spain's Cellnex Telecom SA for almost EUR 10bn. In January 2021, Telefonica subsidiary Teliux Telecom - part owned by private-equity firm KKR and others - sold about 37,000 towers in Europe and Latin America for EUR 7.7bn to American Tower Corp. Just two weeks later, Orange finalised the sale of 50% of Orange Concession, the entity that own the fibre networks for French local government with 4.5m fibre lines, to French financial partners for about EUR 1.5bn. Vodafone has created its own Tower Company, with about 68,000 towers in nine European countries, which is to be listed in Frankfurt this year.

Even so, given the operators' increased investment in fibre, we expect no significant decline in financial leverage for telecom operators in Europe this year.

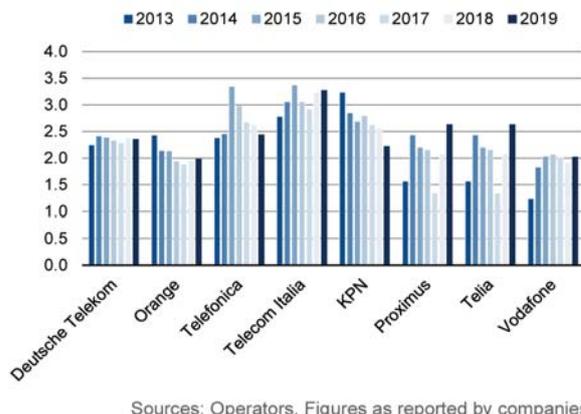


Figure 8. European telecom operators, net debt/EBITDA, 2013-2019

| Country | Price per MHz per pop (€) | Total |
|--|--|--------------|
| Germany | 83.0m pop | |
| 700 MHz (60 MHz) 2015 | 0.20 | 1,000 |
| 900 MHz (70 MHz) 2015 | 0.23 | 1,346 |
| 1500 MHz (40 MHz) 2015 | 0.10 | 330 |
| 1800 MHz (100 MHz) 2015 | 0.29 | 2,405 |
| 2 GHz (2 x 60 MHz) | 0.24 | 2,374 |
| 3.6 GHz (300 MHz) | 0.17 | 4,175 |
| Total (June 2019) | | 6,549 |
| Deutsche Telekom (2,150), Vodafone (1,907) | | |
| Telefonica Deutschland (1,422), 1&1 (1,070) | | |
| France | 67.0m pop | |
| 800 MHz (60 MHz) 2011 | 0.72 | 2,640 |
| 2600 MHz (140 MHz) 2011 | 0.10 | 936 |
| 700 MHz (60 MHz) 2015 | 0.70 | 2,800 |
| 3.6 GHz (310 MHz) | 0.13 | 2,789 |
| Total (October 2020) | | 2,789 |
| To be allocated later | | |
| 26 GHz (1,000 MHz) | Not scheduled yet | |
| Orange (854), Altice (729) | | |
| Bouygues (602), Iliad (605) | | |
| United Kingdom | 66.7m pop | |
| 3.5 GHz (150 MHz) 2018 | 0.13 | 1,307 |
| 2.3 GHz (40 MHz) 2018 | 0.09 | 231 |
| To be allocated in H1 2021 | | |
| 700 MHz (80 MHz) | 0.25 | 1,334 |
| 3.7 GHz (120 MHz) | 0.17 | 1,361 |
| Total 5G in 2021 | | 2,695 |
| BT, Vodafone, Telefonica, Hutchison | | |
| Italy | 60.4m pop | |
| 700 MHz (96 MHz) | 0.35 | 2,040 |
| 3.6 GHz (200 MHz) | 0.36 | 4,350 |
| 26 GHz (1,000 MHz) | 0.003 | 164 |
| Total (September 2018) | | 6,554 |
| Telecom Italia (2,400), Vodafone (2,400), | | |
| Wind-Tre (517), Iliad (1,194) | | |
| Spain | 46.9m pop | |
| 3.6 GHz (200 MHz) 2018 | 0.05 | 438 |
| To be allocated in H1 2021 | | |
| 700 MHz (60 MHz) | 0.35 | 1,268 |
| Total 5G in 2021 | | 1,268 |
| 26 GHz (1,000 MHz) | To take place in 2022 | |
| Telefonica, Vodafone, Orange, MasMovil | | |
| Poland | 38.0m pop | |
| To be allocated in two separate auctions in 2021 | | |
| 700 MHz (60 MHz) | 0.35 | 798 |
| 3.6 GHz (320 MHz) | 0.10 | 1,216 |
| Total 5G in 2020 | | 2,014 |
| 26 GHz (1,000 MHz) | Not scheduled yet | |
| Orange, Deutsche Telekom, Play, Plus | | |
| Romania | 19.4m pop | |
| 3.6 GHz (255 MHz) 2015 | 0.002 | 10 |
| To be allocated in H1 2021 | | |
| 700 MHz (75 MHz) | 0.08 | 116 |
| 800 MHz (10 MHz) | 0.06 | 12 |
| 1500 MHz (40 MHz) | 0.08 | 78 |
| 2600 MHz (80 MHz) | 0.08 | 124 |
| 3.6 GHz (90 MHz and later 400 MHz) | 0.04 | 310 |
| 2100 MHz (120 MHz) lic. Extension 2031 | 0.05 | 110 |
| Total 5G in 2021 | | 750 |
| To be allocated later | | |
| 26 GHz (1,000 MHz) | Not scheduled yet | |
| Orange, Deutsche Telekom, Vodafone, DiGi | | |
| Netherlands | 17.3m pop | |
| 800 MHz (60 MHz) 2012 | | |
| 900 MHz (70 MHz) 2012 | <i>all bands average</i> | |
| 1800 MHz (140 MHz) 2012 | 0.61 | 3,802 |
| 1900 MHz (15 MHz) 2012 | | |
| 2100 MHz (75 MHz) 2012 | | |
| A total of 360 MHz allocated in 2012 | | |
| 700 MHz (60 MHz) | 0.46 | 474 |
| 1400 MHz (40 MHz) | 0.39 | 269 |
| 2100 MHz (120 MHz) | 0.24 | 489 |
| Total (July 2020) | | 1,232 |
| To be allocated later | | |
| 3.5 GHz (150 MHz ?) in March 2022 | 0.15 | 389 |
| July 2020 | KPN (416), Deutsche Telekom (277) | |
| | Vodafone Ziggo (416) | |

Figure 9. Detailed 5G spectrum auctions in the eight largest EU countries (EURm)

Limited M&A possibilities

We expect that European telecoms operators will undertake little largescale M&A this year. Large transnational deals, such as the much-rumoured tie-up between Deutsche Telekom-Orange, offer no synergies: telecom services are local, not exportable, so combining companies

offers no extra revenues and few cost savings. National deals are now almost impossible as most cable operators in the EU have already been bought. In the wireless segment, mobile-mobile deals are de facto blocked by the regulatory authorities, notably the European Commission, on competition grounds.

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