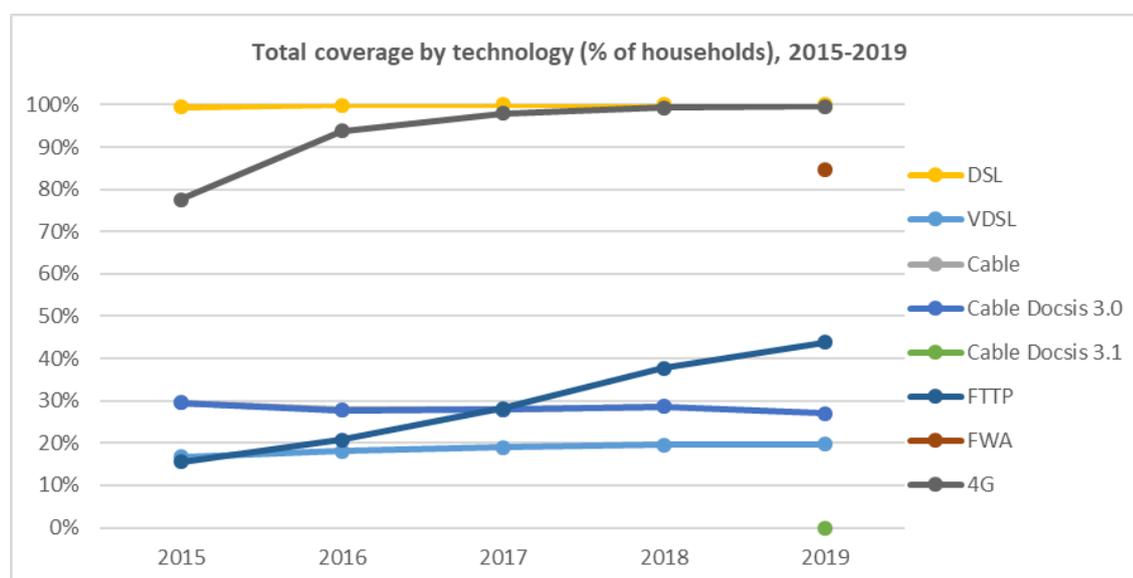
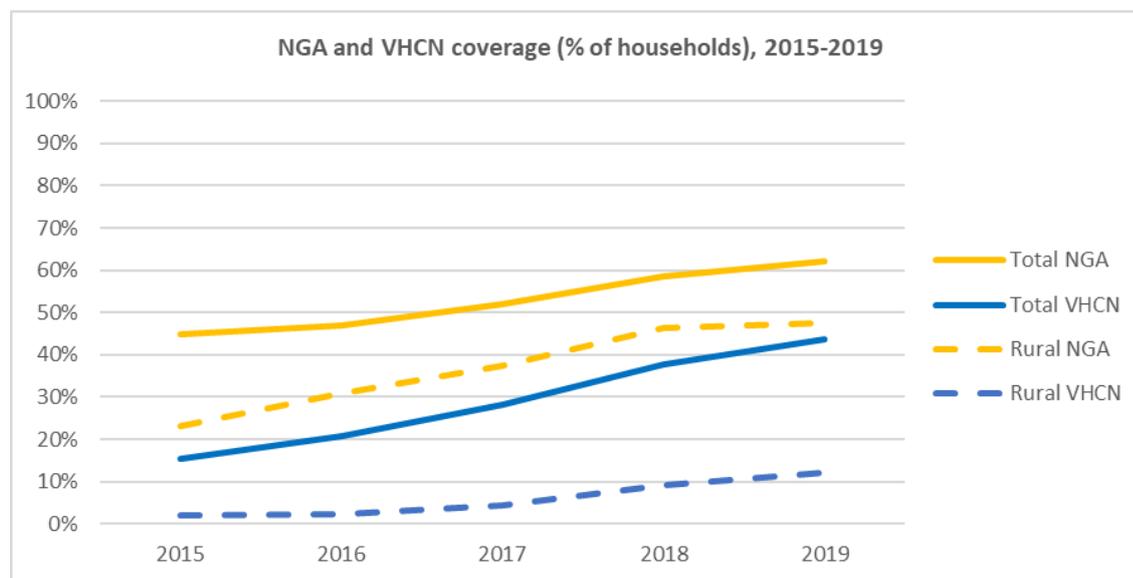


France



Source: IHS and Point Topic, *Broadband coverage in Europe studies*

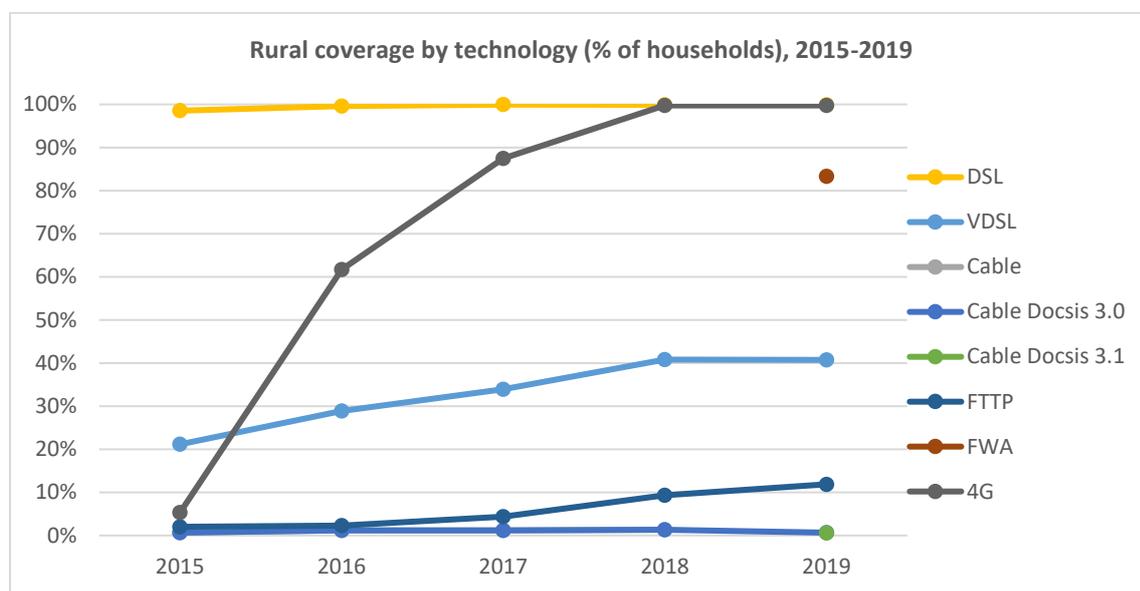
France made significantly faster progress in both VHCN and NGA coverage during the period in question. Coverage of households with FTTP has now reached 44% (against an EU average of 34%), while 27% of households are linked to DOCSIS 30 cable networks. Overall, VHCN coverage reached 44%, the EU average. In rural areas, progress is slower but steady: VHCN coverage reached 12% in 2019, behind the EU average of 20%. Total NGA coverage stands at 62% (against an EU average of 86%), while rural coverage is 11 percentage points behind the EU average (48% against 59%). Aggregate 4G coverage is ubiquitous in both urban and rural areas.

As regards internet access type, nine out of ten new subscribers have opted for FTTH technology¹. In

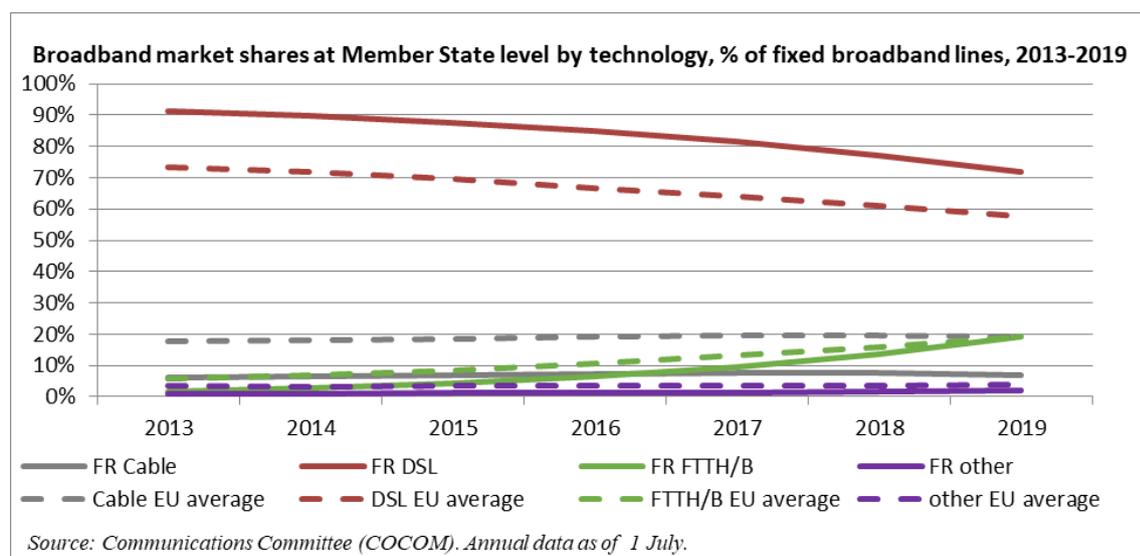
¹ Data from Arcep shows that, as of Q3 2019, nine out of ten new customers of very high-speed broadband opted for FTTH technology. This choice was possible because growing numbers of households are eligible for this technology.

parallel, DSL subscriptions have been in decline for the last seven years.

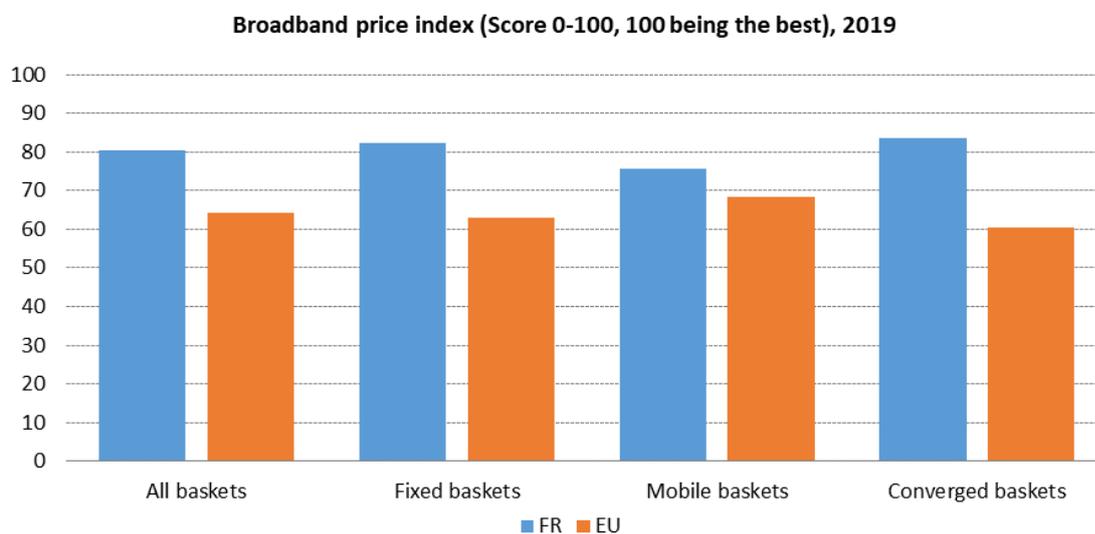
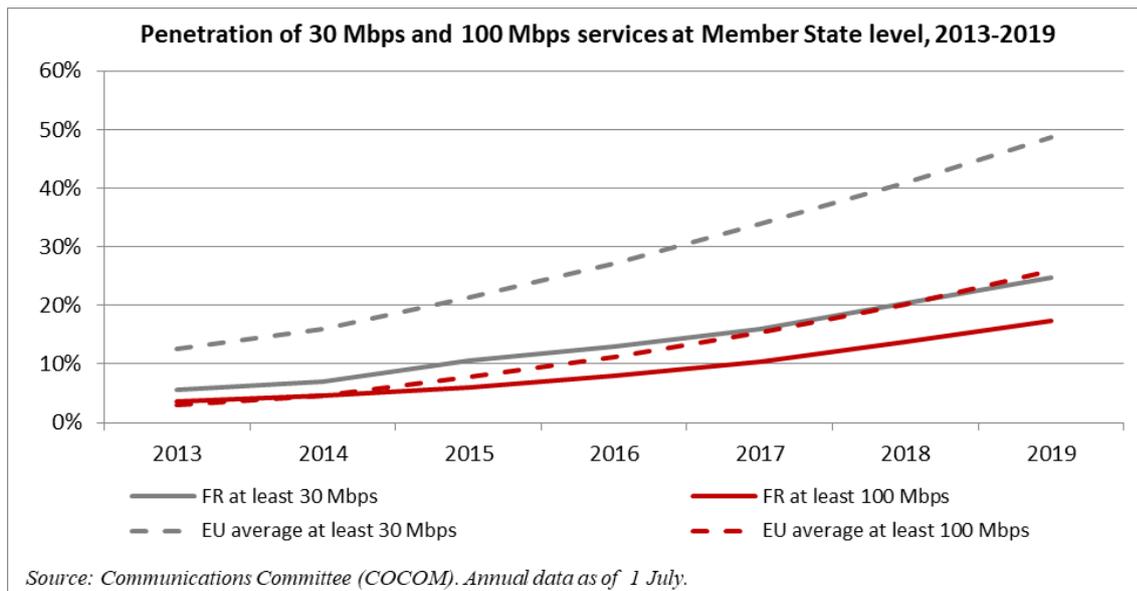
The penetration rate of 30 Mbps services stood at 24.8% in 2019, a long way below the EU average of 48.7%. The penetration rate of 100 Mbps services was 17.4%, far below the EU average of 25.9%.



Source: IHS and Point Topic, Broadband coverage in Europe studies



Source: Communications Committee (COCOM). Annual data as of 1 July.



Source: European Commission, based on Empirica (studies of retail broadband prices)

France is third among EU countries in terms of the broadband price index, ranking higher overall than the EU average for all baskets (fixed, mobile or converged). It scored 80 (against 64) for all baskets in 2019.

1. Progress towards a Gigabit Society²

To improve its high-speed connectivity coverage, France is implementing its national broadband plan, (Plan France Très Haut Débit). This is designed to speed up the roll-out of fibre networks and connect all households with networks providing speeds of 30 Mbps (and above) by 2022 (i.e. two years after the EU objective). France also aims to provide fibre to the home (FTTH) for all users nationwide by 2025. The plan relies mainly on FTTH deployment (target: 80% coverage by 2022), though it sets no explicit objective of providing internet broadband connections of 1 Gigabit. The plan, which started in

² It is noted that statements regarding planned or potential State aid measures record intentions declared by Member States and do not pre-judge or pre-empt the assessment of such measures by the Commission under the relevant state aid rules. The DESI report is not meant to provide any assessment of the compliance of such measures with state aid rules and procedures.

2013, involves investing an estimated total of €20 bn (with €3.3 bn of state investment initially planned to compensate for the lack of private initiative in rural areas). The ultimate aim is to reach a 95% coverage target. According to the French authorities, €280 million has been saved from the above-mentioned €3.3 bn of dedicated public investment and will be invested in new fibre line.

In November 2019, fibre to the home (FTTH) deployment reached around 90% in very densely populated areas, while approaching 60% in less densely populated areas. In rural areas (*'zones moins denses d'intérêt public'*), however, deployment only reached around 15%, showing that more speed is needed to reach the 2025 Gigabit targets. The private sector has already achieved around 62.5% of its objectives under this plan. Deployment on the basis of public intervention, in less densely populated areas, started later, reaching about 28.4% by the end of 2019³.

In May 2019, 15.5 million households and companies were FTTH-eligible⁴.

As for 5G, on 31 December 2019 the Government launched a call for tender with a view to awarding licences to use frequencies in the 3.4 – 3.8 GHz band.

This is in line with France's 5G roadmap, with over three quarters of the 3.4 – 3.8 GHz band to be awarded, enabling 5G commercial services to be launched in France's major cities in 2020.

All four of mainland France's national mobile network operators submitted a bid package by the 25 February 2020 deadline and were accepted to take part in the award procedure. In the first phase, the four candidates made the commitments set out in the specifications, and each will be able to obtain a block of 50 MHz for €350 million at the end of this procedure. They are now authorised to participate in the auction stage, during which the 11 blocks of 10 MHz still available in the 3.4 – 3.8 GHz band will be awarded. The auction has been postponed because of the Covid-19 crisis.

5G rollout has been prepared by the Government and the national regulatory authority, Arcep, which have adopted a 'battle plan' under which 5G trials have been carried out in the 3.4-3.8 GHz band since 2018, while further 5G trials are being conducted in the 26 GHz band. In October 2019, 11 projects were awarded a licence to use 26 GHz band frequencies for 5G experimentation platforms. The players whose projects were selected must have an operational 5G trial network by 1 January 2021 at the latest, and make it available to third parties to perform their own 5G trials.

2. Market developments

On the corporate market, *Kosc*, created in 2016 to encourage competition on the wholesale corporate market, declared insolvency in 2019. A hearing before the Paris Market Court, held in early December 2019, granted the company six months to remedy the situation⁵.

On the consumer market, most of the main telecoms operators reported that they had invested increasingly throughout 2018 and 2019. Overall, investments rose over the 10 years up to 2018, reaching a total of about €10 billion in that year (overall figure for investments made by all telecoms operators in France, excluding purchase of mobile frequency rights⁶). There continues to be fierce competition on the consumer market, and prices for services are lower than in most EU countries.

³ Data from the DGE.

⁴ Source: Arcep

⁵ Altitude Infrastructure, an infrastructure operator, presented a continuation plan before the Paris Market Court at the end of January 2020.

⁶ Source: Arcep

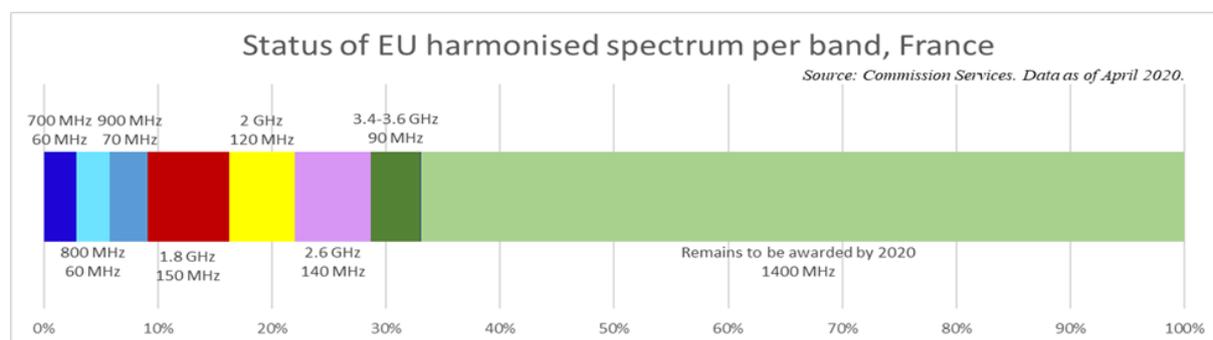
In Q3 2019⁷, the operators' overall revenue on the telecoms market showed a 1% decline year-on-year. The only increase in revenue in 2019 was in mobile services (+1.2% within a year). In contrast, revenue from the fixed market has been in decline over the last decade (-2.3% within the past year), owing to an ongoing decrease in low throughput accesses. Moreover, revenue from the sales of high speed and very high-speed internet accesses has been stagnating, even though French households are increasingly gaining access to very high-speed internet.

As regards data traffic, the volume of data consumed on mobile networks is increasing rapidly (+50% within a year). 95% of French people have a mobile phone, which is a smartphone in eight cases out of ten. 51% of the French population prefer to use smartphones to connect to the internet, against 31% who prefer the computer, representing an increase of four percentage points within a year⁸.

3. Regulatory developments

A draft of the legal provisions incorporating the European Electronic Communications Code (EECC) into French law was submitted for public consultation in mid-January⁹.

3.1. Spectrum assignment



In France, 33% of the spectrum harmonised at EU level for wireless broadband has been assigned. The spectrum yet to be assigned is mainly in the 1.5 GHz, 3.6-3.8 GHz and 26 GHz bands.

As regards 4G, the four main mobile network operators have continued to abide by the new obligations added to their respective licences in 2018. The aim is to provide ubiquitous 4G coverage nationwide, improve coverage on roads, and improve quality of service, both indoors and outdoors. In Q4 2019, they provided the following coverage in mainland France:

- Bouygues - 99% of the population,
- Free - 96% of the population,
- Orange - 99%,
- SFR - 99%¹⁰.

Mobile operators will have to switch all existing mobile sites to very high-speed mobile broadband (i.e. at least 4G) by the end of 2020; one exception is that 75% of the sites covered by the programme

⁷ Source: Arcep, 'Marché des communications électroniques en France (T3 2019)'

⁸ Source: Arcep, 'Marché des communications électroniques en France (T3 2019)'

⁹ <https://www.entreprises.gouv.fr/numerique/consultation-publique-relative-a-la-transposition-du-code-des-communications-electroniques>

¹⁰ Source: Operator's data as of 31 December 2019.

'zones blanches centres-bourgs'¹¹ that was underway on 1 July 2018 will have to be covered with 4G by the end of 2020, the figure being 100% by the end of 2022. As of Q4 2019, between 85% and 87% of MNO's mobile sites are equipped with LTE¹².

As for the 3.4-3.8 GHz band, Arcep plans to allocate only 310 MHz of spectrum in mainland France, as the remaining spectrum is to be used for fixed wireless access (FWA) until 2026.

There is currently no information about the prospective use of this remaining 90 MHz after the rights linked to its current use have expired.

The frequencies will be allocated for 15 years initially. The licence duration can subsequently be extended by five years, either with no modification of the licence conditions other than the duration, or with modifications to the licence conditions if such modifications are needed to meet objectives associated with:

- territorial development,
- genuine, undistorted competition,
- development of investment, innovation and competitiveness, or
- the efficient use and management of frequencies.

In both cases, licence holders will be notified of the licence extension conditions at least two years before their rights expire, and they are at liberty to decline extension. Each bidder can acquire up to 100 MHz of spectrum through this procedure.

The award mechanism is based on obligations for all the winning candidates and an optional set of commitments that give rights to a block of 50 MHz and become binding obligations once they are entered into. Some obligations require each licence holder to achieve 5G coverage, launch commercial services in at least two cities by the end of 2020, and continue to roll out 5G across an increasing number of sites until 2025. Licensees are also required to provide increased throughput while achieving ubiquitous 5G coverage. As of 2022, at least 75% of sites must provide services of at least 240 Mb/s each. This obligation will be gradually extended to include all sites by 2030. The award mechanism also provides for obligations to do with road coverage and with granting reasonable requests from businesses by providing them with customised solutions in terms of coverage and performance or, if the operator so wishes, by assigning its frequencies locally. Two interim reviews are scheduled for 2023 and before 2028 to check whether operators are meeting their obligations, along with market requirements, particularly as regards mobile network coverage and quality of service.

3.2. Regulated access

No market review was notified in 2019. Arcep plans to notify new market analyses for the following markets in 2020:

- wholesale local access provided at a fixed location (market 3a in the 2014 Recommendation on relevant markets),

¹¹The coverage programme known as 'Zones blanches centres-bourgs' aims to provide mobile coverage in village centres identified as having no such coverage. By December 2019, 4000 village centres were covered by the programme, representing 1% of the population (source: Arcep)

¹² Source: Arcep

- wholesale central access provided at a fixed location for mass-market products (market 3b in the 2014 Recommendation on relevant markets), and
- wholesale high-quality access provided at a fixed location (market 4 in the 2014 Recommendation on relevant markets).

Arcep has identified three main stakes for the next market analysis cycle:

1. the need to introduce flanking measures at the same time as decommissioning the copper network and to incentivise operators to switch to fibre networks where available; however, as subscribers are transferred from the copper to the fibre network, the cost per subscriber of maintaining the copper network may increase and with it the attention given to the applicable quality of service requirements;
2. the need to consolidate competition on the retail fibre market;
3. the need to intensify competition on the corporate market.

Arcep considers that the market has been developing positively since the last market analysis in 2017. Some new offers have emerged on the wholesale passive market, making the wholesale market more dynamic.

4. End-user matters

a. Complaints

The 'J'alerte l'Arcep' platform enables end-users to report problematic cases to the national regulatory authority¹³. However, the purpose of this tool is not to refer complaints formally to that authority, but rather to provide end-users with targeted advice for follow-up action on a reported problem. In 2019, the 'J'alerte l'Arcep' platform received 24,425 alerts against 34,000 in 2018, showing a downward trend. Alerts come from consumers (90%), businesses (9%) and local or regional authorities (1%). The downward trend may be linked to two factors: less visibility of the platform in the media, and an increase in customer satisfaction since the previous year. For example, in 2019, 47% of alerts concerned availability and quality of service, down from 62% of those received in 2018¹⁴.

b. Open internet

On 27 June 2019, Arcep published the 2019 edition of its report on the state of the internet in France. It was submitted to Parliament and presented to the media and sector experts. In December 2018, Arcep had published a code of conduct for firms providing tools to measure the quality of fixed and mobile internet networks. The 2019 report states that five such measuring tools are compliant with Arcep's code of conduct¹⁵.

c. Roaming

In France, four MVNOs are allowed to charge roaming surcharges: Afone, Euro-Information Telecom, Lebara France Ltd and Syma. These together account for under 5% of the French mobile market.

d. Emergency communications – 112

The European emergency number 112 is used in France, along with the 114 national emergency

¹³ However, Arcep does not have the power to resolve disputes between operators and users.

¹⁴ Source: Arcep

¹⁵ nPerf, Speedtest UFC-Que Choisir (developed by UFC-Que Choisir), DébiTest 60 (the internet speed test from 60 millions de consommateurs), 4GMark (developed by QoS) and IPv6-test

number for disabled users. The latter is accessible via text message, an internet application, a dedicated website, and fax. Although the 112 emergency number is used in France, the Commission is currently monitoring the extent to which it works in practice. This is because the relevant Commission departments have been informed that not all public safety answering points have the technical capability to provide emergency services with instant caller location.

e. Other issues

On the mobile internet market, measurements show marked improvements in service quality.

The quality of data services has reportedly improved on all four operators' mobile networks, taking all area types into account (rural, medium-density and high-density areas). The average downlink speed measured in mainland France stood at 45 Mbit/s, against only 30 Mbit/s in 2018, while downlink throughput doubled in rural areas over the same period (from 14 to 28 Mbit/s)¹⁶.

5. Conclusion

France continues to implement its national broadband plan, designed to provide better nationwide connectivity in terms of speed and coverage. While fibre deployment targets have been almost fully met in very densely populated areas, less densely populated areas, including rural areas, still need to be covered with fibre.

As regards LTE, action is still being taken to meet the obligations introduced in licences in 2018, but they have already improved coverage and quality of service, especially in rural areas.

As for 5G, the obligations included in the adopted spectrum award mechanism are designed to gradually achieve coverage across the country between 2020 and 2030.

¹⁶ Source: Arcep