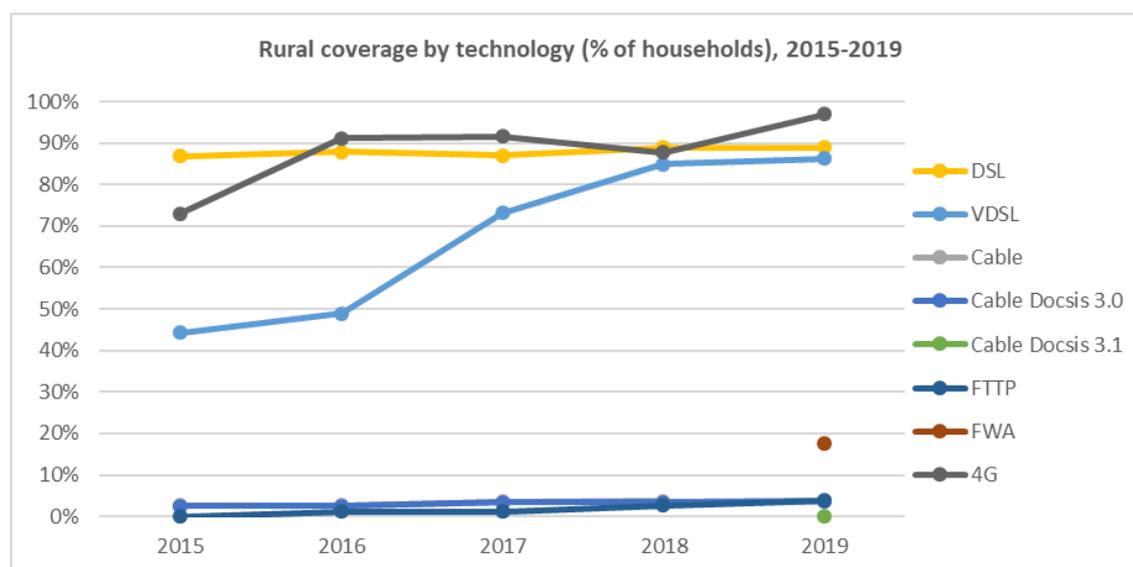
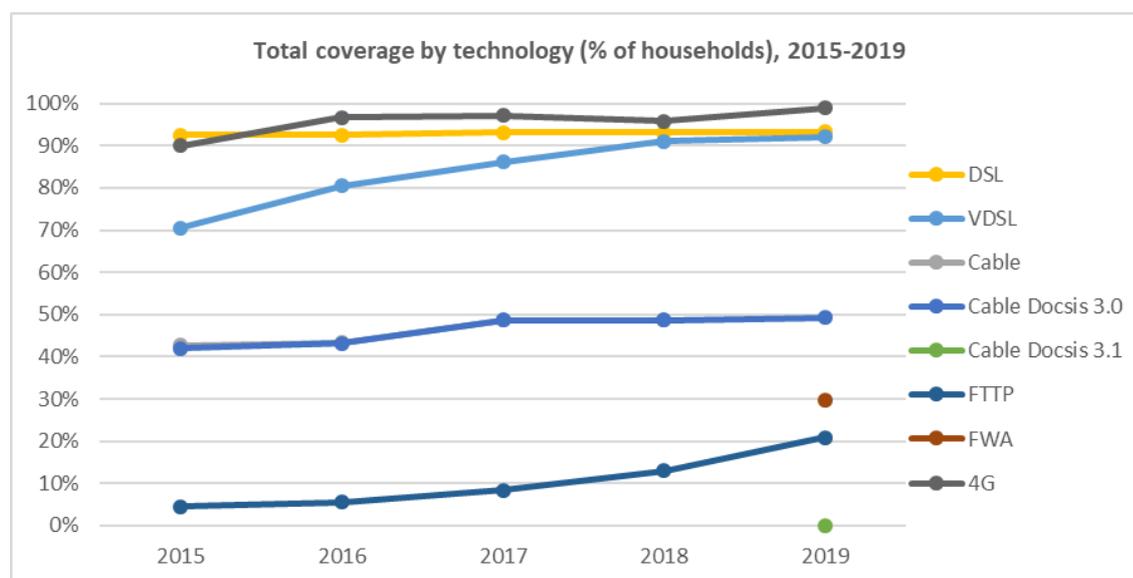


Ireland



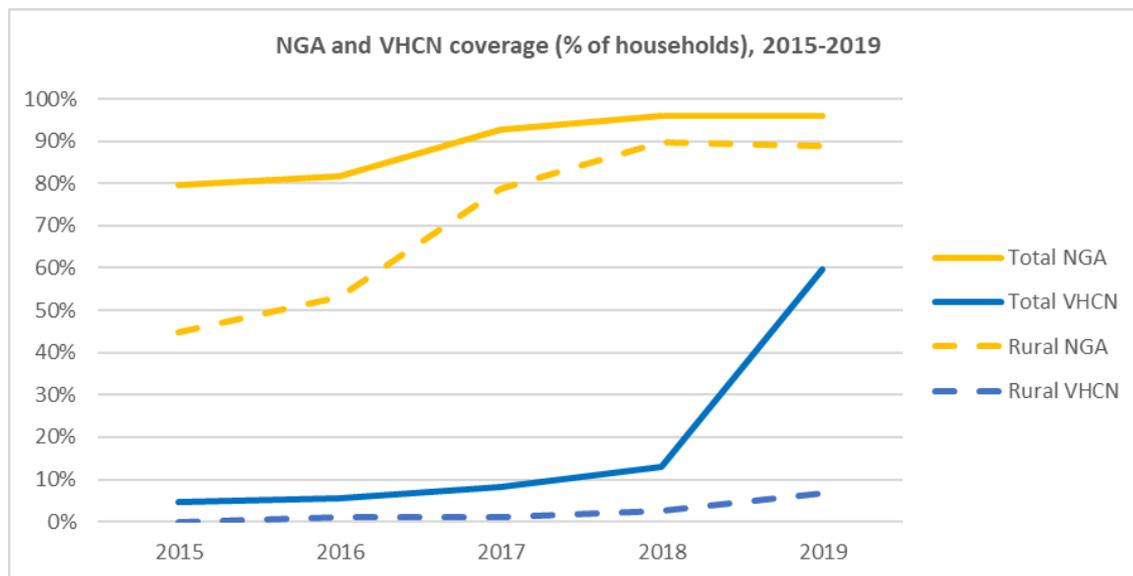
Source: IHS and Point Topic, *Broadband coverage in Europe studies*

In terms of fixed coverage, Ireland outperforms the EU on DSL (at 93%, compared to 91% the EU average), on cable (49%, compared to 46% the EU average) and especially on VDSL (92%, ranking third in the EU, far above the EU average of 59%). However, it lags substantially behind on FTTP coverage (21%, surpassing only six EU Member States, compared to 34% the EU average), on cable DOCSIS 3.1¹ (with no coverage, compared to 19% the EU average) and on fixed wireless access (FWA) (30%, compared to 49% the EU average). Rural FTTP coverage in particular is only 4% (far below the EU average of 21%). This reflects the fact that Ireland's geography and population distribution prevents market players from deploying very high capacity network (VHCN) countrywide and the need for state intervention in underserved areas.

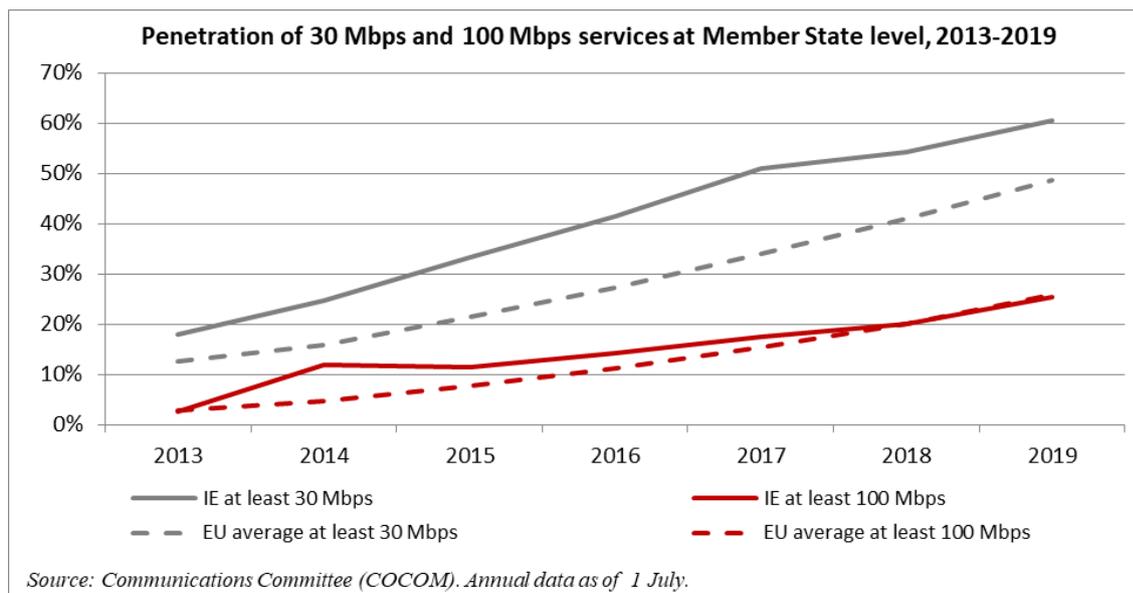
Ireland also performs well on mobile coverage with 99% of 4G coverage, almost on par with the EU average.

¹ This indicator was added in the DESI 2020 report and is used to track very high capacity network coverage.

Next generation access in Ireland remains very high (at 96% overall, and 90% in rural areas, versus the EU average of 86% and 59% respectively). Fixed VHCN coverage has increased from 13% in 2019 to 21% in 2020, but remains well below the EU average of 44%.



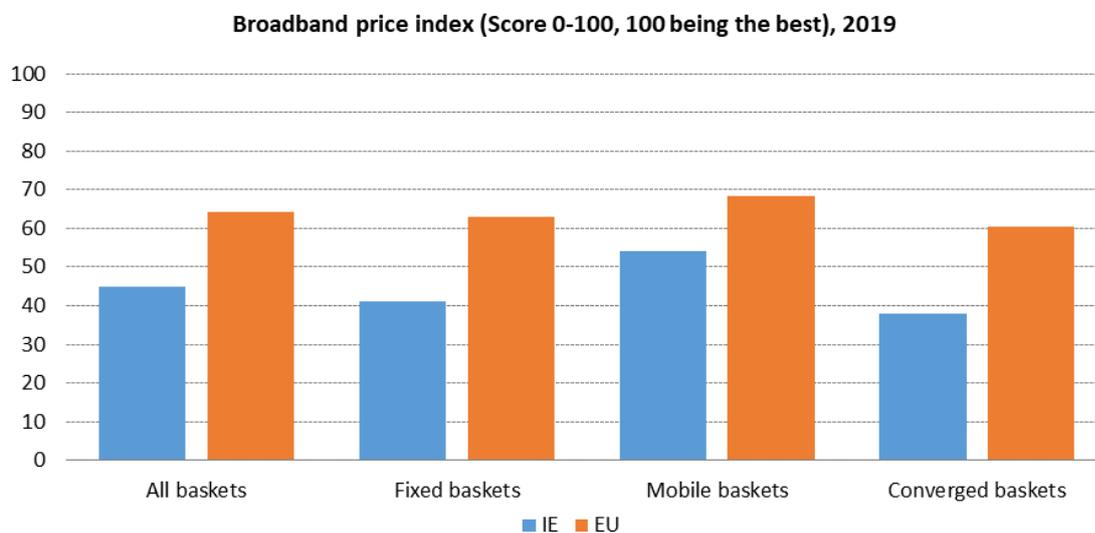
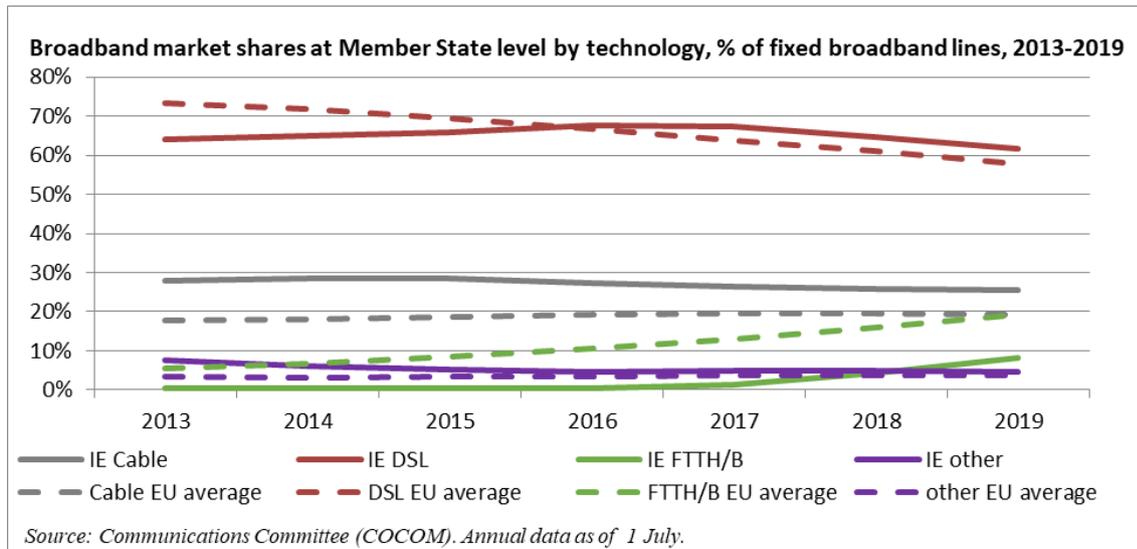
Source: IHS and Point Topic, *Broadband coverage in Europe studies*



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

In the fixed market, Ireland exceeds the EU average on broadband penetration for speeds at 30 Mbps and above (60.6% per household compared to 48.7% the EU average – data as at July 2019) but has now fallen slightly behind for speeds at 100 Mbps and above (25.5% per household compared to 25.9% the EU average). DSL continues to be predominant, but with a falling market share (62% in July 2019, down from 65% a year ago). Cable subscriptions are also continuing to lose ground slightly (25.5% in July 2019, down from 26% the previous year). The share of FTTH almost doubled in a year (8.2%, up from 4.2% the previous year), demonstrating that demand is ready to follow supply, though it remains well below the EU average (19.3%).

In the mobile market, Ireland reported just over 5 million mobile broadband subscriptions as at Q2 2019, which equates to a market penetration of 103%, slightly above the EU average (100%).



Source: European Commission, based on data from Empirica (Retail broadband prices studies)

Broadband prices² in Ireland are substantially higher than the EU average for all speeds and types of product. This is reflected in the broadband price index, where Ireland ranks 27th in the EU with a broadband price index of 45 (against the EU average of 64). In fact, for most of the fixed and converged price baskets, Ireland ranks among the five most expensive EU countries. However, the gap is substantially smaller in the higher end baskets, especially the standalone offering above 200 Mbps, on which Ireland is practically on par with the EU average.

Mobile broadband prices also tend to be higher in Ireland than the EU average. For data-only packages, the difference is higher at lower data allowances (twice as much for up to 1 GB) but substantially smaller at higher data allowances (39% more expensive for 5 GB but 14% cheaper for 20 GB). The trend is similar for mobile voice and data packages, where for a 20 GB allowance, the baskets in Ireland are 40% cheaper than the EU average.

² Source: Study for fixed broadband prices in Europe 2019 (Empirica, project SMART 2016/0044) - forthcoming. Comparisons are for the least expensive price (PPP) per basket. Each basket is defined based on the speed bracket (up to 10 Mbps, 10-30 Mbps, 30-100 Mbps, 100-200 Mbps) and the service components (internet, '2-play' with internet+telephone or internet+TV, and '3-play' with internet+telephony+TV).

1. Progress towards a Gigabit Society³

Ireland is making substantial progress towards the Gigabit Society targets. Market players continue to deploy very-high-capacity networks (VHCN). The FTTH network run by the incumbent operator, Eircom, covers 375,000 premises (as of December 2019)⁴. In January 2020, Eircom launched a new project to upgrade its FTTC network to FTTH, aiming to cover 1.4 million households over the next five years (a €500 million investment). SIRO, a joint venture between the ESB (the state-owned electricity distribution network operator) and Vodafone, which offers wholesale-only services, covers approximately 300,000 premises and targets 500,000 premises in 50 towns. Virgin media is also expanding its own network.

However, Ireland's geography and population distribution prevent market players from deploying VHCN countrywide. The Irish national broadband plan (NBP) is designed to respond to this challenge and aims to ensure high-speed broadband access to all premises in Ireland, via a combination of commercial investment and State aid intervention. Following a lengthy procurement process launched in December 2015, which faced substantial challenges⁵, the contract for the national broadband plan was signed on 19 November 2019. The contractor, National Broadband Ireland (NBI), will build a predominantly fibre-based network to cover 540,000 premises in Ireland. NBI will be a wholesaler offering passive and active wholesale products to all retail and wholesale service providers willing to provide services in the area.

Under the aegis of the Mobile Phone and Broadband Taskforce, which has worked on over 70 measures since 2016 focusing on issues that have a negative impact on the roll-out of essential telecommunications infrastructure, the Department of Rural & Community Development has created and funded the role of the Broadband Officers in local authorities. Their role is to act as local contact points for network operators and the public regarding telecom matters. Market players and other stakeholders have highlighted their appointment as an extremely important development. As the NBP is rolled out, Broadband Officers will also support and contribute to the development of digital strategies in local communities.

The Irish authorities are also implementing initiatives to support digitalisation and the uptake of broadband services. They include the Smart Community Initiative, the Trading Online Voucher Scheme, the School Digital Champion Programme and the Digital Skills for Citizens Grant Scheme.

Vodafone and Eir have already announced the commercial launch of 5G services, although deployment only covers limited numbers of locations (5 and 10 towns respectively). According to the market players, the two main challenges are the timely availability of spectrum⁶ and access (including cost of access) to sites and to public land.

All operators expressed concerns over the potential impact of campaigns across Ireland to stop the installation of 5G antenna systems and even previous generations of antenna systems. As a result, several Irish county councils passed resolutions against 5G.

³ 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.

⁴ <https://www.eir.i.e./pressroom/eir-FY19-Full-Year-Results-Announcement/>

⁵ E.g. the reduction of the intervention area in 2017 to exclude commercial investment planned by Eircom and the withdrawal of two participants, SIRO and Eircom, in 2017 and 2018 respectively, left only one bidding consortium, led by Granahan McCourt.

⁶ *Infra* section 3.1 Spectrum assignment.

The transposition of Article 18 of Directive 2014/61 (Broadband Cost Reduction Directive) on in-building physical infrastructure is still pending. This could hinder the deployment of high-speed electronic communications networks to reach end-users.

2. Market developments

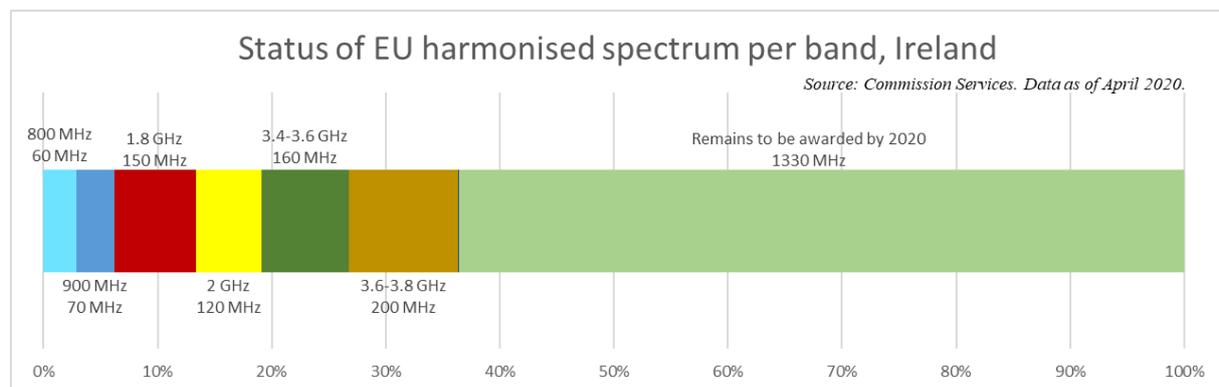
The most important development in the market in 2019 is the establishment of National Broadband Ireland (NBI), a new player in the broadband market that resulted from the award of the NBP tender. NBI will be a wholesale player that will operate only in the intervention area.

Competition is intense, as reflected by the market share of the incumbent operator in fixed broadband subscriptions (32.2% as at Q2 2019, compared to the EU average of 39.3%, surpassing only 5 of the 26 Member States that have provided relevant data).

ComReg is monitoring mobile coverage and has developed an outdoor mobile coverage map and mobile application. The map went live in February 2019. ComReg is preparing the release of the mobile application in 2020 and plans further enhancements.

3. Regulatory developments

3.1. Spectrum assignment



Overall, Ireland has awarded 760 MHz, i.e. 36.4% of the total 2,090 MHz harmonised spectrum for broadband⁷. The awarded spectrum is in the 800 and 900 MHz and the 1.8, 2 and 3.4-3.8 GHz bands. ComReg is in the process of awarding rights of use in the frequency bands of 700 MHz, 2.1, 2.3 and 2.6, but not in the 26 GHz band.

For the 700 MHz band, ComReg does not anticipate any difficulties in migrating existing users or in clearance of the band, which was completed on 4 March 2020. According to the current timetable, the spectrum award process is planned to begin in Q4 2020. A number of steps remain to be taken, including an additional public consultation and the adoption of legislation to provide the legal basis for the auction process.

Market players have expressed concerns on the delay in the award of the 700 MHz band. Two market players have expressed concerns on the combinatorial clock auction method adopted.

The 3.6 GHz band was awarded in June 2017. However, the band is not completely free for use, as it has been used to provide services to more than 20,000 customers predominantly in rural areas, where

⁷ The 5G spectrum readiness indicator is based on the amount of spectrum already assigned and available for use for 5G by 2020 within the '5G pioneer bands' in each EU Member State. For the 3.4-3.8 band this means that only licences aligned with the technical conditions annexed to Commission Decision (EU) 2019/235, are considered 5G-ready. On the contrary, the percentage of harmonised spectrum takes into account all assignments in all harmonised bands for electronic communications services (including 5G pioneer bands), even if this does not meet the conditions of the 5G readiness indicator.

in some cases, the incumbent fixed wireless operator may have been the only available provider of broadband services to homes and schools. To ensure continued services for such users, ComReg has developed a transition licensing framework, which was consulted with the market and implemented by way of the 3.6 GHz Band Award rules, contained in the 3.6 GHz Band Spectrum Award Information Memorandum⁸. According to ComReg, there has been considerable progress in making an orderly transition of the band, which has facilitated the take-up of spectrum rights for all new licensees. ComReg regularly publishes updated transition information via a dedicated page on its website⁹.

3.2. Regulated access (both asymmetric and symmetric)

In Ireland, all markets included in the 2014 Recommendation on Relevant Markets are subject to regulation, along with a few legacy markets¹⁰.

In November 2019, ComReg addressed the delay it had accumulated in the past years in conducting market reviews, by notifying its analysis and draft measure for the market for wholesale high-quality access provided at a fixed location (market 4 of the 2014 Recommendation on relevant markets¹¹). To avoid future delays, ComReg has committed to carrying out mid-term reviews of the markets.

In May 2019, ComReg published the Market Analysis Decision¹², and the related Price Control Decision¹³ concerning the markets for wholesale call termination on individual public telephone networks provided at a fixed location, and for wholesale voice call termination on individual mobile networks (markets 1 and 2 of the 2014 Recommendation respectively). For market 2, ComReg set FTRs and MTRs based on a Bottom BU (Pure) LRIC cost model (bottom up modelling approach using pure long run incremental costs), with rates adjusted on a glide path.

ComReg has also notified a set of regulatory measures concerning the wholesale and retail bids for tenders to non-geographical numbers.

ComReg has commenced work (including engagement with external stakeholders) on reviews of three additional markets: markets 1 and 2 of the 2007 Recommendation on relevant markets and market 18 of the 2003 Recommendation on relevant markets. ComReg expects to be in a position to run public consultations on its reviews of these markets in Q2 2020.

DCCAE and ComReg are working together to transpose the Code, but there are significant challenges. The current intention is to use predominantly secondary legislation. The market has expressed concerns on the timely completion of the process and the lack of engagement so far. According to Irish authorities, a number of targeted stakeholder engagement events were planned in early 2020 with the telecommunications and the OTT sector. In view of COVID-19 restrictions, other online events are planned in Q2-Q3 2020.

⁸ Document 16/71.

⁹ See <https://www.comreg.ie/industry/radio-spectrum/spectrum-awards/3-6-ghz-band-transition/>

¹⁰ (a) The retail market for access to the public telephone network at a fixed location for residential and non-residential customers (market 1 of the 2007 Recommendation on relevant markets; (b) the market for call origination on fixed networks (market 2 from the 2007 Recommendation); and (c) the broadcasting transmission market (market 18 from the 2003 Recommendation).

¹¹ Commission Recommendation 2014/710/EU of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services Text with EEA relevance, OJ L 295, 11.10.2014, p. 79-84.

¹² ComReg Document 19/47.

¹³ ComReg Document 19/48.

4. Issues for end-users

a. Complaints

According to information provided by ComReg, during the period 1 January 2019 to 31 December 2019, residential and business customers raised 36,565 issues to ComReg's consumer line. ComReg's consumer line team could deal with and close the majority which were queries (31,016). Only the 6,004 complaints required direct escalation to the service provider. Most complaints concerned premium-rate services, billing (including disputed charges), service issues (such as loss of service and quality of service) and contractual matters (contract termination requests and terms and conditions).

b. Net neutrality

Following ComReg's empowerment to enforce net neutrality rules, on 12 July 2019, it launched a number of investigations into undertakings' compliance with their obligations under the net neutrality rules. The investigations are still pending.

According to ComReg, the development of zero-rated services is still at an early stage in Ireland.

c. Emergency communications – 112

In Ireland, user location for fixed calls is based on installation addresses and Eircodes. User location for mobile calls is based on network infrastructure data and mainly on advanced mobile location (AML). AML was rolled out in 2017 for voice calls over Android and in 2019 for SMS over Android and voice calls over iOS. Authorities estimate that AML is available for about 55% of mobile calls. For the remaining mobile calls, caller location relies on cell information. Currently, Ireland is looking to extend AML for EU roamers.

For persons with disabilities (speech impaired), SMS is the primary means for communicating. The mechanism relies on forwarding SMSs to the PSAP. An alternative is the Irish Text Relay Service, an enhanced text relay service that provides the translation of text into voice and voice into text to help people who are deaf or hard of hearing in making and receiving calls. The service is accessible from mobile phones (Android and iOS), tablets and PCs, enabling conversations through text.

d. Universal service

Eir is the designated universal service provider and has submitted applications for USO funding for the financial years 2010 to 2016. ComReg has assessed the direct net cost, intangible benefits and the unfair burden. It has issued individual consultation documents and final decisions for the financial years 2010-15¹⁴. For each of these cases, ComReg concluded that there was a positive net cost of €7.5 million in respect of Eir's provision of the universal service obligation and that this positive net cost does not represent an unfair burden on Eir. On 15 May 2019, Eir, appealed to the High Court against these decisions.

Currently, broadband internet access service is not included in the scope of universal service.

5. Other issues

In 2019, the national authorities approved an increase in staffing for ComReg, from 125 to 147 permanent positions.

Furthermore, as of 12 July 2019, ComReg has been granted powers to impose penalties for breaching net neutrality rules. Such powers have been granted through secondary legislation. However, legislation for intra-EU calls enforcement powers is still pending. The DCCAIE has in parallel initiated a

¹⁴ ComReg Decisions D05/19, D06/19, D07/19, D08/19 and D09/19.

project to prepare primary legislation that will reinforce ComReg's sanctioning powers. This is a standalone process separate from the transposition of the EECC.

In December 2018, ComReg and Eir signed an agreement settling, on the one hand, several legal proceedings brought against Eir for breaching the access regulations and, on the other hand, a legal proceeding brought by Eir against the Minister for Communications on the validity of the legislation upon which ComReg's compliance litigation had been based. The main element of this agreement was the establishment of an enhanced Regulatory Governance Model in Eir. The main aspect of the model includes establishing an Independent Oversight Body, increasing the independence of the wholesale arm and ensuring that access to IT systems is governed properly. Alternative operators have expressed concern that this model cannot reinforce Eir compliance with telecoms legislation.

ComReg has completed the review and reform of the non-geographic numbers (NGN) regime. A new retail regulation reduces the number of ranges from 5 to 2 (1800 for free phone and 0818 for normal calls). In parallel, a new wholesale regulation imposes price control (BU-LRIC+) for the wholesale origination rate. This is based on Article 5 of the Access Directive, in combination with Article 28 of the USD and Articles 8, 9 and 13 of the Access Directive. It was notified on 11 November 2019. The new rates will be effective from 1 May 2020. Some operators expressed concerns on the wholesale approach, both on the approach taken and on the economic implications.

6. Conclusion

The award of the contract for implementing the national broadband plan is a major development for Ireland. It can help bridge the geographical divide and expand the footprint of ultrafast broadband networks in rural Ireland, helping achieve the country's Gigabit Society targets for 2025. For implementation to be successful, it will be important to monitor and enforce the rules effectively in the Irish electronic communications market. There is a risk that the long delay in transposing Article 8 of the Broadband Cost Reduction Directive 2014/61 hinders the deployment of high-speed electronic communications networks to reach all end-users. Equally important is for the 5G spectrum to be awarded without delay. Ireland has already awarded 5G spectrum in the 3.6 GHz band and is now moving forward with the award of the 700 MHz band according to the published timetable. The award process is planned to begin in Q4 2020. From an institutional viewpoint, the increase in staffing and the powers granted to enforce net neutrality rules are significant, positive developments for ComReg.