International Communications Market Report 2017

EU5 and EU28 Broadband Scorecard
EU5 and EU28 Broadband Scorecard

This annex includes comparisons of the EU5 and EU28 countries on a number of broadband metrics.

The EU5 country comparisons use the same data as the Broadband Scorecard section of the 2017 *International Communications Market Report*¹ (which includes 19 EU and non-EU countries), while the EU28 comparisons use data from the European Commission’s *Digital Agenda Scoreboard 2017* and Eurostat, and are included for completeness and for continuity with previous *Broadband Scorecard* reports.

It is important to note that some of the results shown here may not comparable to those in previous Broadband Scorecards and Ofcom’s *Connected Nations*² reports, as they are based on different data. Additionally, the data in the EU28 comparisons may differ from those published in the main Broadband Scorecard section of the *International Communications Market Report 2017*, Ofcom’s *Connected Nations* reports and the EU5 comparisons, as they use data taken from different sources.

This section provides comparisons for the EU5 on a number of broadband metrics, using the same data sources as the Telecoms and Networks chapter of the *International Communications Market Report*.

It is important to note that some of these results may not comparable to previous EU5 Scorecards, as they are based on different data sources or use restated data.
Summary

We have benchmarked the UK against the EU5 countries, as summarised in Figure 1.

Figure 1: Broadband Scorecard: the UK’s rank relative to EU5 countries: 2016

<table>
<thead>
<tr>
<th>Coverage</th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADSL</td>
<td>&gt;99%</td>
<td>1</td>
</tr>
<tr>
<td>Cable</td>
<td>48%</td>
<td>3</td>
</tr>
<tr>
<td>FTTx</td>
<td>87%</td>
<td>1</td>
</tr>
<tr>
<td>VDSL</td>
<td>85%</td>
<td>1</td>
</tr>
<tr>
<td>FTTP</td>
<td>2%</td>
<td>5</td>
</tr>
<tr>
<td>Fixed broadband with advertised speed ≥10Mbit/s</td>
<td>98%</td>
<td>1</td>
</tr>
<tr>
<td>Fixed broadband with advertised speed ≥30Mbit/s</td>
<td>92%</td>
<td>1</td>
</tr>
<tr>
<td>Fixed broadband with advertised speed ≥300Mbit/s</td>
<td>2%</td>
<td>5</td>
</tr>
<tr>
<td>3G mobile population coverage by at least one MNO</td>
<td>99%</td>
<td>4</td>
</tr>
<tr>
<td>4G mobile population coverage by at least one MNO</td>
<td>100%</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connections</th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADSL as a proportion of all fixed broadband lines</td>
<td>54%</td>
<td>4</td>
</tr>
<tr>
<td>Cable as a proportion of all fixed broadband lines</td>
<td>20%</td>
<td>2</td>
</tr>
<tr>
<td>Fibre (VDSL &amp; FTTP) as a proportion of all fixed broadband lines</td>
<td>27%</td>
<td>2</td>
</tr>
<tr>
<td>FTTP as a proportion of all lines</td>
<td>0.4%</td>
<td>5</td>
</tr>
<tr>
<td>Fixed broadband with advertised speed ≥10Mbit/s and &lt;30Mbit/s</td>
<td>51%</td>
<td>2</td>
</tr>
<tr>
<td>Fixed broadband with advertised speed ≥30Mbit/s and &lt;300Mbit/s</td>
<td>45%</td>
<td>1</td>
</tr>
<tr>
<td>Fixed broadband with advertised speed ≥300Mbit/s</td>
<td>&lt;1%</td>
<td>5</td>
</tr>
<tr>
<td>3G (service and device) as % of all mobile subscriptions</td>
<td>41%</td>
<td>4</td>
</tr>
<tr>
<td>4G (service and device) as % of all mobile subscriptions</td>
<td>50%</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Usage</th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed data per capita per month (GB)</td>
<td>53</td>
<td>1</td>
</tr>
<tr>
<td>Mobile data per capita per month (GB)</td>
<td>1.7</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Choice</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incumbent provider share of fixed broadband lines</td>
<td>37%</td>
</tr>
<tr>
<td>Mobile market HHI</td>
<td>2,845</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Price</th>
<th>2017</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average price to receive ‘unlimited’ broadband with advertised speed &lt;30Mbit/s in a dual-play bundle</td>
<td>£32</td>
<td>3</td>
</tr>
<tr>
<td>Average price to receive ‘unlimited’ broadband with advertised speed ≥30Mbit/s and &lt;300Mbit/s in a dual-play bundle</td>
<td>£40</td>
<td>3</td>
</tr>
<tr>
<td>Average price to receive ‘unlimited’ broadband with advertised speed ≥300Mbit/s in a dual-play bundle</td>
<td>£50</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: IHS Markit / industry data / Ofcom
Notes: For the purposes of this table most of the figures have been rounded to the nearest whole number; coverage and connections data are for the year-end 2016; the fixed broadband coverage data in this report are based on the availability of different fixed broadband technologies, and the ‘full-fibre’ availability figure in this report differs from that in the Connected Nations 2017 report (https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2017/), which shows that 3% of premises were able to receive ‘full-fibre’ FTTP services in May 2017; the fixed broadband coverage by speed data in this table refers to the proportion of homes able to receive services with the with the relevant advertised speed – these figures differ from the coverage figures stated in our Connected Nations 2017 report, which are calculated based on detailed premises-level data inputs relating to estimated connection speeds provided by...
UK communications providers in May 2017, and show 97% premises coverage for speeds ≥10Mbit/s, 92% for speeds ≥24Mbit/s, 91% for speeds ≥30Mbit/s and 36% for speeds ≥300Mbit/s; in order to provide a comparative benchmark across all 19 ICMR countries, 4G (100%) and 3G (99%) mobile coverage encompasses outdoor population coverage from at least one operator - this differs from the 58% 4G coverage figure stated in our Connected Nations 2017 report, which is based on on the percentage of premises that have indoor 4G coverage from all four MNOs; please see the International Price Benchmarking chapter of the 2017 Communications Market report (https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2017) for details of the methodology that has been used to derive the pricing figures shown above.

Coverage

At the end of 2016, the UK ranked first among the EU5 countries (at over 99%) for the household availability of ADSL broadband, although the differences between the UK and the other EU5 countries were relatively small.

It is important to note that some premises in ADSL-enabled areas may not be able to receive broadband services, or may only be able to do so at very low speeds, due to reasons such as the long length or poor quality of the copper telephone line from the premises to the local exchange.

The UK also ranked first for the availability of fibre broadband networks (at 87%, 2pp ahead of Italy), although it ranked last for the availability of ‘full-fibre’ FTTP networks (at less than 2%).

The UK continued to lead the EU5 in both basic and superfast broadband coverage, based on advertised (rather than actual) speeds. We have used advertised speeds as it has not been possible to source comparable actual speed data; the drawback of this approach is that the figures will partly be determined by the way in which services are marketed.

Basic fixed broadband with advertised speeds of ‘up to’ 10Mbit/s or more was available to 98% of households in the UK, while superfast broadband with advertised speeds of ‘up to’ 30Mbit/s or more was available to 92% of households.

However, the UK ranked third for the availability of broadband with advertised speeds of 100Mbit/s or more (49%), behind Spain (79%) and Germany (65%), and last for the availability of ultrafast broadband products with an advertised speed of 300Mbit/s or higher, at less than 2%. However, Virgin Media’s launch of 300Mbit/s services on its cable/FTTP network in March 2017 significantly increased the availability of ultrafast broadband in the UK since the end of 2016.

The mobile coverage data used in this section have been compiled from a number of sources. There may therefore be differences in the way that these data have been derived, and the mobile availability figures shown here may not always be like-for-like comparisons.

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3 In the Connected Nations 2017 report (https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2017), we say that 3% of UK premises could receive ‘full-fibre’ FTTP services in May 2017. A number of providers of varying scale and reach are committed to deploying full-fibre services, and we expect to see coverage continue to increase over the coming year.

4 In the Connected Nations 2017 report, we define basic broadband as being those connections with an actual download speed ≥10Mbit/s and an actual upload speed ≥1Mbit/s.

5 In the Connected Nations 2017 report, we say that 97% of UK premises could receive an estimated download speed ≥10Mbit/s in May 2017, while 91% could receive an estimated speed ≥30Mbit/s.

6 In the Connected Nations 2017 report, we say that 36% of UK premises could receive an estimated download speed ≥300Mbit/s in May 2017.
The UK ranked first among the EU5 countries for the proportion of households in areas with 4G mobile broadband coverage from at least one provider, at over 99%.

**Figure 2: Percentage of households in areas served by ADSL broadband (%): end 2016**

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>100</td>
</tr>
<tr>
<td>FRA</td>
<td>100</td>
</tr>
<tr>
<td>ITA</td>
<td>98</td>
</tr>
<tr>
<td>GER</td>
<td>97</td>
</tr>
<tr>
<td>ESP</td>
<td>90</td>
</tr>
</tbody>
</table>

*Source: IHS Markit*

*Notes: All figures have been rounded to the nearest whole number; it is important to note that some premises in ADSL-enabled areas may not be able to receive broadband services, or may only be able to do so at very low speeds.*

**Figure 3: Percentage of households in areas served by cable broadband (%): end 2016**

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>GER</td>
<td>64</td>
</tr>
<tr>
<td>ESP</td>
<td>49</td>
</tr>
<tr>
<td>UK</td>
<td>48</td>
</tr>
<tr>
<td>FRA</td>
<td>28</td>
</tr>
<tr>
<td>ITA</td>
<td>0</td>
</tr>
</tbody>
</table>

*Source: IHS Markit*

*Note: All figures have been rounded to the nearest whole number; in the 2017 Connected Nations report ([https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2017](https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2017)) we found that 45% of UK premises had access to cable broadband services in May 2017.*

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7 In the *Connected Nations* 2017 report, we say that 58% of UK premises were in areas with indoor 4G coverage from all four MNOs in June 2017.
Figure 4: Percentage of households in areas served by FTTx broadband networks (including VDSL and FTTP) (%): end 2016

Source: IHS Markit
Note: All figures have been rounded to the nearest whole number; in the 2017 Connected Nations Report (https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2017) we found that 3% of UK premises had access to ‘full-fibre’ FTTP services in May 2017.

Figure 5: Percentage of households passed by fixed broadband networks, by available advertised speeds (%): end 2016

Source: IHS Markit
Note: All figures have been rounded to the nearest whole number; in the 2017 Connected Nations report (https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2017) we found that in May 2017 97% of UK premises had access to services offering estimated download speeds ≥10Mbit/s, 91% had access to estimated speeds ≥30Mbit/s and 36% had access to estimated speeds ≥300Mbit/s.
Figure 6: Percentage of population in areas served by 3G and 4G mobile broadband (%): end 2016

Source: IHS Markit
Note: The data for UK in this chart differ from the 4G (58%) coverage stated in our Connected Nations report (https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2017), which focuses on the percentage of premises that have indoor 4G coverage from all four MNOs.

Connections and use

Among the EU5 countries, the UK had the second-highest share of broadband connections with an advertised speed of 30Mbit/s or more (45%), after Spain (49%), which also had the highest share of connections with an advertised speed of 100Mbit/s or higher, due to its widespread deployment of FTTP.

Again, we have used advertised speeds as it has not been possible to source reliable actual speeds data, and the drawback of this approach is that the figures will partly be determined by the way in which fixed broadband services are marketed.

At the end of 2016, the UK had the second lowest proportion of connections provided over ADSL broadband (54%), as UK customers migrate to superfast broadband services. It had the second highest proportion of connections provided using fibre (27%), behind Spain (40%). However, the large majority of the UK’s fibre connections are provided using VDSL over fibre-to-the-cabinet (FTTC); less than 1% of UK broadband connections are provided over fibre-to-the-premises (FTTP), the lowest proportion among the EU5.

The UK had the largest share of mobile connections that were 4G services on a 4G-enabled device (50%) and the highest number of per-capita 4G connections, at 69 per 100 people.

The UK also led in terms of average data volumes consumed per capita over fixed broadband (53GB per month – more than double that in any of the other EU5 countries), and in mobile data volumes (at 1.7GB per month).  

8 In the Connected Nations 2017 report (https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2017) we say that, in June 2017, average data use per UK residential fixed broadband connection was 190GB, while average data use per mobile connection was 1.9GB.
Figure 7: Fixed broadband connections per 100 people: end 2016

Source: IHS Markit / industry data / Ofcom
Note: Includes business and residential lines; all figures have been rounded to the nearest whole number.

Figure 8: Proportion of fixed broadband connections, by advertised speed (%): end 2016

Source: IHS Markit / industry data / Ofcom
Note: All figures have been rounded to the nearest whole number.
Figure 9: Percentage of fixed broadband connections, by technology (%): end 2016

Source: IHS Markit / industry data / Ofcom
Note: All figures have been rounded to the nearest whole number. ‘Other’ connections include fixed broadband technologies such as fixed wireless technologies (WiMAX, BWFA), satellite and/or powerline connections.

Figure 10: 3G and 4G connections as a proportion of total mobile connections (%): end 2016

Source: IHS Markit
Note: The countries are ranked by 4G connections as a proportion of total mobile connections.
Figure 11: 4G mobile connections per 100 people: end 2016

69
49
47
42
40

UK
FRA
ESP
ITA
GER

Source: IHS Markit
Note: Mobile broadband includes all data connections made on cellular networks, including those made via mobile handsets and using dedicated mobile data dongles and SIMs; excludes M2M; all figures have been rounded to the nearest whole number.

Figure 12: Fixed data volume per capita per month (GB): 2016

53
24
22
21
12

UK
GER
ESP
FRA
ITA

Source: IHS Markit
Notes: All figures have been rounded to the nearest whole number; in the 2017 Connected Nations report (https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2017) we found that average data use per residential fixed broadband connection was 190GB in June 2017.
Figure 13: Mobile data volume per capita per month (GB): 2016

Source: IHS Markit / industry data / Ofcom
Note: In the 2017 Connected Nations report [https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2017] we found that average monthly data use per mobile connection was 1.9GB in June 2017.

Price

Overall, the UK ranked third among the EU5 countries, after Germany and France, for the price of three baskets of dual-play fixed broadband and landline services.

Please see the International Price Benchmarking chapter of the 2017 Communications Market Report [https://www.ofcom.org.uk/research-and-data/multi-sector-research/cmr/cmr-2017/international] for details of the methodology that has been used to derive the figures below.

Figure 14: Weighted average monthly price for dual-play fixed broadband and landline bundles (£): 2017

Source: Ofcom, using data provided by Teligen
Choice

In all the EU5 countries the incumbent telecoms operator is the largest telecoms operator by market share. BT had the lowest share of fixed broadband lines of any of the incumbent telecoms providers in the EU5 (37%), indicating that alternative network operators have had more success in winning market share in the UK than in the other EU5 countries. We use the Herfindahl-Hirschman index (HHI) based on subscription numbers to measure market concentration in mobile markets. The UK had the lowest HHI value in the EUS, indicating that it is the least concentrated mobile market in terms of subscriptions.

Figure 15: Proportion of fixed broadband lines operated by incumbent (%): end 2016

Source: IHS / operator data / Ofcom

Figure 16: Mobile market HHI, MNOs (including wholesale and hosted MVNO): end 2016

Source: IHS Markit
Broadband Scorecard: EU28 comparisons

In this section, we update the comparisons of broadband-related metrics for EU28 countries that have been published in previous European Broadband Scorecard reports.

Again, it is important to note that the data in this annex may differ from those published in the main Broadband Scorecard section of the ICMR (which compares 19 EU and non-EU countries), as well as differing from the EUS5 scorecard, as different data sources are used for these two reports.

Figure 17: Proportion of households in areas served by fixed broadband with advertised speeds of at least 2Mbit/s (%): June 2016


Notes: (1) Data refer to June 2016. (2) Ofcom has banded the EC figures within a range between the nearest integers divisible by 5. (3) Fixed broadband coverage includes availability of DSL (including VDSL), cable (including DOCSIS 3.0), FTTP, and WiMAX technologies capable of providing headline speeds of least 2Mbit/s.
Figure 18: Proportion of households in areas served by NGA broadband (%): June 2016


Note: (1) Data refer to June 2016. (2) Ofcom has banded the EC figures within a range between the nearest integers divisible by 5. (3) NGA broadband’ refers to NGA technologies, including VDSL, FTTP and DOCSIS3.0 cable, those needed to provide 30Mbit/s download speeds for end-users.

Figure 19: Proportion of households in areas served by HSPA 3G mobile broadband (%): June 2016


Note: (1) Data refer to June 2016 (2) Ofcom has banded Point Topic’s figures within a range between the nearest integers divisible by 5. (3) ‘HSPA 3G mobile broadband’ refers to coverage by at least one HSPA-upgraded 3G mobile network.
**Figure 20**: Proportion of households in areas served by 4G mobile broadband (%): June 2016


Notes: (1) Data refer to June 2016. (2) Ofcom has banded figures within a range between the nearest integers divisible by 5. (4) ‘4G mobile broadband’ refers to coverage by advanced fourth generation mobile broadband (LTE protocol).

**Figure 21**: Proportion of fixed broadband connections with a headline speed of ‘more than or equal to’ 30Mbit/s (%): June 2016

Source: EC, Digital Agenda Scoreboard 2017, Eurostat

Note: (1) Data refer to June 2016. (2) ‘30+Mbit/s broadband’ refers to NGA technologies, including VDSL, FTTP and DOCSIS3.0 cable, those needed to provide 30Mbit/s download speeds for end-users.
Figure 22: Mobile broadband connections per 100 people: June 2016

Source: EC, Digital Agenda Scoreboard 2017, Eurostat
Notes: (1) Data refer to June 2016. (2) Data combine the number of subscriptions that have connected to the internet in the preceding 90 days through a standard mobile subscription, the number of subscriptions to dedicated data services over a mobile network that are purchased separately from voice services as a standalone service (modem/dongle), and the number of subscriptions to dedicated data services over a mobile network that are purchased separately from voice services as an add-on data package requiring an additional subscription. (3) Mobile broadband connections may use technologies including 3G, HSPA and LTE.

Figure 23: Proportion of fixed broadband lines operated by incumbent (%): June 2016

Source: EC, Digital Agenda Scoreboard 2017, Eurostat
Note: (1) Data refer to June 2016. (2) These data refer to all forms of fixed-line broadband, including standard and 30+Mbit/s connections.