

Communications Market Report

Bite-sized

Research Document

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The Communications Market Report

The communications market plays a crucial role in the lives of citizens and consumers, and the fast-paced nature of the market means that this role is ever-changing.

This summary report draws on the findings of the 2016 Communications Market Report. Its aim is to underline the importance of communications to citizens and consumers and highlight how the market is changing in 2016, in a brief and accessible form.

The Communications Market Report exists to provide a reference for industry, stakeholders and consumers across the sectors Ofcom regulates: fixed-line and mobile telecoms, TV, radio and video-on-demand services, post, and the airwaves used by wireless devices.

It supports Ofcom's goal to research markets constantly and remain at the forefront of technological understanding, as well as fulfilling the requirements on Ofcom under Section 358 of the Communications Act 2003 to publish an annual factual and statistical report, and in Sections 14 and 15, to undertake and make public our consumer research.

More in-depth analysis of the UK communications market is available in the <u>full report</u>, and in-depth analysis of communications in the nations is available in the reports for <u>Northern</u> <u>Ireland</u>, <u>Scotland</u> and <u>Wales</u>.

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Why do communications matter?

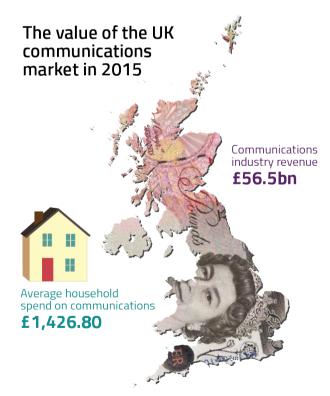
We all need high-quality communications. In the modern world, a huge amount of our time is spent using communications services: for work, to stay in touch with family and friends, and in order to go about our daily lives.

Our ability to access and use reliable mobile and broadband connections has become fundamental to the way we work and live, and to the ability of businesses of all sizes to thrive.

For many people, internet connectivity is now as essential as gas or electricity, and access to traditional television, radio, fixed phone lines and postal services continue to remain important.

Communications services generated £56.5bn revenue in 2015

Communications are a crucial part of the UK economy, with revenues of \pounds 56.5bn in 2015. Average household spending on TV, radio, internet, telephony and post in 2015 was \pounds 1,426.80 in 2015, or \pounds 118.90 per month.



Source: Ofcom/ operators/ONS. TV and radio revenues include licence fee allocation, post revenue is addressed letter mail.

More time is spent using media and communications than sleeping

In Q1 2016 we conducted an in-depth diary study on UK adults' and children's total media and communications activities.

Media and communications play a vital role in UK adults' lives. We are spending more time on media and communications than on sleeping. The average UK adult uses media and communications services for 8 hours 45 minutes a day, and sleeps for 8 hours 18 minutes.

Average time spent on communications services in 2016, per person



Source: Ofcom Digital Day 2016.

Connectivity is improving...

The availability of technologies and services that offer faster, more reliable, internet connections has continued to grow.

4G take-up has increased to 48% of UK adults (from 30% in 2015) while 4G mobile services are now available to 97.8% of UK premises. And 37% of fixed broadband connections are providing actual speeds of 30Mbit/s or more, up from 30% in 2014. In total, 86% of UK adults now have internet access at home.

The greater choice of where and how to access the internet is driving greater use of online services. The smartphone, in particular, is becoming an ever more important device for many consumers, and take-up of this device has increased again this year. Seventy-one per cent of all adults now own a smartphone, up from 66% in 2015.

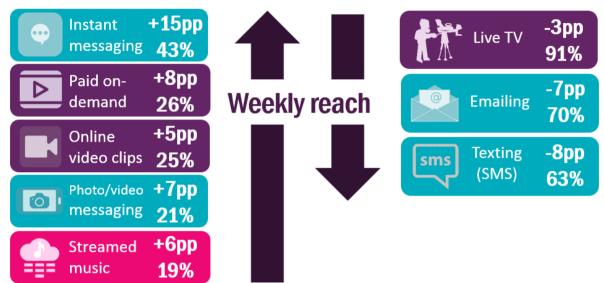
...resulting in a rise in use of on-demand and online services

Wider internet availability, the provision of faster connection speeds, and the popularity of using a smartphone to go online all contribute towards changing patterns of consumption.

Our research showed that over-the-top services are being substituted for more traditional means of communication. Instant messaging surged in 2016; the proportion of adults using services such as Facebook Messenger and WhatsApp at least once a week rose from 28% in 2014 to 43% in 2016. Photo and video messaging, such as Snapchat or MMS, is now used by one-fifth of UK adults on a weekly basis, up from 14% in 2014. In contrast, the proportion of UK adults texting or emailing has fallen.

Viewing of video-on-demand (VoD) services has also increased. A quarter (26%) of UK adults watch paid on-demand services on a weekly basis in 2016, up from 18% in 2014.

The increased use of on-demand and online communications and media services has also led to a rise in demand for data. The average fixed broadband line used 82GB of data per month in 2015 - 41% more data in June 2015 than in the same month the previous year.



Source: Ofcom Digital Day 2016.

But traditional television and radio remain popular

Despite the fact that the internet is changing the way people use media and communications services, traditional forms of media remain resilient. Ofcom's Digital Day research showed that in an average week, more than nine in ten UK adults watched live television, and threequarters of UK adults listened to radio.

Coping in a connected world

We conducted research into how people feel about the world being increasingly connected, and how they cope with it.

Daily internet use is now almost universal

Nine in ten adults reported going online every day. The internet takes up a considerable proportion of people's time each week, with the average internet user estimating they spend 25 hours online each week, rising to 29 hours for 16-24s.

The internet is valued by UK adults for many reasons, ranging from facilitating communications, to finding out the latest news, to simply preventing boredom. Many respondents said they felt lost without the internet, and six in ten admit to being 'hooked' on their smartphones, tablets or other connected devices. Breaking this figure down, 21% were 'hooked', nearly a quarter (23%) were 'very hooked' and 15% were 'completely hooked'.



But many report spending too much time online

But time spent online has some drawbacks. Four in ten (41%) internet users think they spend too much time online, and some internet users reported that this has negative effects on their work or personal lives, on occasion causing them to neglect housework or miss out on sleep, or simply getting in the way of talking to friends or family.

Our love of our devices is affecting those around us too. Four in ten (40%) said they had felt ignored by a friend or relative who was engrossed in their connected device, and a quarter of people reported having been bumped into in the street because another person was too busy checking their phone to look where they were going.

It seems that as a society, we just can't put our phones down.

15 million people are taking control by choosing to spend time offline

However, some people are starting to more actively manage the time they spend online – some by taking a break from being connected, whether for a day, a week or even a month.

The most common reasons for 'detoxing' were to spend more time doing other things (cited by 44%) and to spend more time with friends and family (39%). Many people found their time offline to be a positive experience: a third (33%) said they felt more productive, 27% found it liberating, while a quarter (25%) enjoyed life more. Others are abandoning technology on holiday. Three in ten (30%) respondents had done a holiday digital detox of some form, and this included sixteen per cent of UK adults who have purposely visited a destination with no internet access.

The availability of broadband services varies widely across the UK

Last year we reported that around 2.4 million UK homes and small businesses could not receive an internet service with an actual speed of 10Mbit/s or higher, and it is vitally important that these consumers are not left behind.

There are a range of initiatives aimed at improving broadband coverage. For mobile broadband services, these include the insertion of coverage obligations in mobile licences. For fixed broadband, the government is legislating to ensure that all UK households have a right to request a connection with a speed of at least 10Mbit/s by 2020.

TELECOMS AND NETWORKS



Sector overview

Take-up of superfast broadband grows to 37.1% of connections

The total number of fixed broadband connections increased by 0.9 million to 24.7 million in 2015, while the number of superfast broadband connections (i.e. connections providing actual speeds of at least 30Mbit/s) rose by 2.0 million to 9.2 million over the same period, meaning that 37.1% of all fixed broadband connections were superfast at the end of 2015. This has led to average actual speed increases, from 22.8Mbit/s in November 2014 to 28.9Mbit/s in November 2015.

Consumers will have the right to request broadband with a speed of at least 10Mbit/s

In 2015, the government announced plans for a universal service obligation (USO) for broadband services. This USO would give everyone in the UK the right to a broadband connection with speeds of at least 10Mbit/s, upon reasonable request. Ofcom believes that a connection speed of at least 10Mbit/s is necessary to deliver an acceptable broadband user experience, and data collected from communications providers suggests that 2.4 million UK homes and small businesses could not receive such speeds in June 2015.

Traditional landlines are in decline as mobile phone use increases

The total number of landlines decreased by 0.3 million (1.0%) to 33.2 million in 2015, while the total number of mobile subscriptions increased by 1.6 million (1.8%) to 91.5 million during the year. Fixed-to-mobile substitution in voice calls continued in 2015, when fixed voice call minutes fell by 9.2% to 74 billion minutes in 2015 and mobile voice call minutes increased by 2.0% to 143 billion minutes. This shift is probably due to decreases in mobile voice call prices, the increasing prevalence of mobile tariffs offering unlimited voice minutes and the convenience of smartphones. In 2016, 93% of consumers aged 16 and over had a mobile phone, whereas 86% had a fixed landline.

But texting is losing popularity as instant messaging grows

The total number of outgoing SMS and MMS messages continued to fall in 2015, down by eight billion messages (7.6%) to 101 billion messages. Correspondingly, the use of instant messaging – using online services such as WhatsApp – continued to increase in popularity.

Use of mobile data services is continuing to grow

The growth of 4G has been rapid. 4G mobile services are now available to 97.8% of UK premises (outdoor coverage from at least one operator) in June 2016. 4G accounted for almost half of all mobile subscriptions (46%, 39.5 million connections) in Q4 2015, compared to 28%, 23.6 million, in 2014.

Key telecoms metrics

UK Telecoms Industry	2010	2011	2012	2013	2014	2015
Total operator-reported revenue	£40.6bn	£39.5bn	£39.4bn	£38.2bn	£37.3bn	£37.5bn
Operator-reported retail revenue (excl. Corporate data services)	£27.8bn	£27.9bn	£28.3bn	£28.1bn	£28.2bn	£28.7bn
Operator-reported wholesale revenue	£10.1bn	£8.9bn	£8.3bn	£7.5bn	£6.5bn	£6.2bn
Average monthly household telecoms spend (2015 prices)	£86.06	£84.13	£83.16	£80.43	£79.65	£82.17
Fixed access and call revenue	£9.3bn	£9.0bn	£8.7bn	£8.7bn	£8.4bn	£8.4bn
Fixed internet revenue	£3.3bn	£3.5bn	£3.7bn	£4.0bn	£4.6bn	£5.1bn
Fixed lines	33.4m	33.3m	33.4m	33.4m	33.5m	33.2m
Fixed broadband connections	19.6m	20.7m	21.8m	22.8m	23.7m	24.7m
Superfast broadband connections (≥30Mbit/s)	0.2m	1.0m	3.1m	5.3m	7.1m	9.2m
Fixed voice call minutes	123bn	111bn	102bn	93bn	82bn	74bn
Average actual residential fixed broadband download speeds	6.2Mbit/s	7.6Mbit/s	12.0Mbit/s	17.8Mbit/s	22.8Mbit/s	28.9Mbit/s
UK superfast broadband premises coverage	-	-	-	-	75%	83%
Mobile retail revenues	£15.1bn	£15.4bn	£15.9bn	£15.5bn	£15.2bn	£15.2bn
Mobile voice call minutes	131bn	131bn	132bn	134bn	137bn	142.8bn
SMS & MMS messages sent	129bn	150bn	151bn	129bn	110bn	101bn
Mobile data volumes	-	-	-	283PB	533PB	873PB
Active mobile subscribers	81.5m	82.2m	83.2m	82.7m	83.7m	84.8m
4G subscribers	-	-	-	2.7m	23.6m	39.5m
4G UK outdoor premises coverage, by at least one operator	-	-	-	-	-	90.5%
M2M subscribers	3.2m	4.1m	5.0m	5.7m	6.3m	6.7m

Source notes are on page 19. Note: 4G UK outdoor premises coverage by at least one operator, in May 2016, was 97.8%

INTERNET AND ONLINE CONTENT



Sector overview

The majority of adults now have internet access at home

Eighty-six per cent of adults now have internet access at home. Take-up of household internet stood at more than nine in ten adults under 55, broadly consistent with previous years. Among those aged 55-64, access increased from 82% in 2015 to 87% in 2016. The over-75s were the age group with the lowest level of home internet access, at 45%.

The smartphone is now the device of choice for using the internet

Consumers who use the internet identified smartphones as their most important device for going online in 2016 (36%), rising to 56% of internet users aged 16-34. Around seven in ten (71%) of all adults claimed to own a smartphone – more than any other connected device. Among adults under 35, this rose to nine in ten.

Shopping, accessing health information and news are all popular online activities

Two-thirds (67%) of internet users say they buy goods or services online. Forty-four per cent claim to use the internet to find health information, while 42% access news online.

But many are still either unable or unwilling to go online

Fourteen per cent of adults said they did not have access to the internet at home in 2016, and 10% of adults said they did not intend to get it in the next 12 months. Of those who did not have home internet access, 50% said they did not need it, while 22% claimed not to want a computer and 21% said that they were 'too old to use the internet'.

UK internet and online content market	2009	2010	2011	2012	2013	2014	2015	2016
¹ Internet take-up	73%	75%	77%	79%	80%	82%	85%	86%
¹ Laptop take-up	44%	51%	55%	61%	62%	63%	65%	64%
¹ Smartphone take-up	n/a	n/a	27%	39%	51%	61%	66%	71%
¹ Tablet take-up	n/a	n/a	2%	11%	24%	44%	54%	59%
¹ Consideration that the smartphone is the most important device for internet access	n/a	n/a	n/a	n/a	15%	23%	33%	36%
² Total digital audience	n/a	n/a	n/a	n/a	n/a	n/a	47.5m	50.3m
³ Digital advertising expenditure	£3.6bn	£4.1bn	£4.8bn	£5.4bn	£6.3bn	£7.3bn	£8.6bn	n/a
³ Mobile advertising expenditure	£0.04bn	£0.08bn	£0.2bn	£0.5bn	£1.0bn	£1.6bn	£2.6bn	n/a

Key internet and online content metrics

TV AND AUDIO VISUAL

Sector overview

Traditional viewing remains popular, although time spent watching has declined More than nine in ten people (92%) watched television each week in 2015. Time spent watching broadcast TV continued to decline in 2015, but more slowly than the accelerated decline of previous years. The average 3 hours 36 minutes a day that people aged four and above spent watching conventional TV in 2015 was 26 minutes a day less than five years previously. Behind the headline comparison is a growing generational divide; watching broadcast television among 16-24s has experienced the steepest decline (27%) since 2010, followed by children (26%).

Video-on-demand use is continuing to grow

A change in the TV and audio-visual landscape in recent years has been the rise of both free and paid-for video-on-demand (VoD) services, allowing consumers to access content at a time that is convenient for them. VoD services were used by 59% of adults at the end of 2015. The consumption of paid-for on-demand services in particular has grown: weekly reach of such services increased from 18% in 2014 to 26% of adults in 2016, with younger adults being the highest consumers of paid-for on-demand (57% of 16-24s each week).

And more money than ever is being invested in television programming

Never has more been invested in content than in 2015. The £6.5bn of spend on network TV programmes was driven by record levels of investment in premium sports content, by both Sky and BT.

UK television industry	2010	2011	2012	2013	2014	2015
Total broadcast TV industry revenue	£11.8bn	£12.4bn	£12.5bn	£12.8bn	£13.2bn	£13.6bn
Proportion of revenue which is BBC income allocated to TV	22%	21%	21%	20%	21%	19%
Proportion of revenue generated by advertising	30%	29%	28%	29%	29%	30%
Proportion of revenue generated by subscriptions	43%	44%	44%	46%	45%	45%
Total online TV industry revenue	£180m	£238m	£379m	£574m	£795m	£976m
Broadcaster share of total display advertising spend	43%	43%	43%	43%	43%	43%
Spend on originated output by main five PSB channels	£2.5bn	£2.5bn	£2.6bn	£2.5bn	£2.6bn	£2.6bn
Spend on network content by UK broadcasters	£5.4bn	£5.5bn	£5.6bn	£5.8bn	£6.4bn	£6.5bn
Digital TV homes (proportion of all households)	92%	94%	96%	95%	93%	95%
Traditional pay-TV subscriptions	14.4m	14.7m	15.0m	16.0m	17.1m	17.9m
Weekly reach of broadcast TV (proportion of people 4+)	93%	94%	94%	93%	92%	92%
Minutes spent watching TV per day (per person aged 4+)	242	242	241	232	220	216
Share of the main five PSB channels in all homes	55%	54%	52%	51%	51%	51%
VoD usage (proportion of adults 15+)	27%	43%	38%	51%	57%	59%

Key TV and audio-visual metrics

RADIO AND AUDIO



Sector overview

Most people are still listening to radio

The proportion of people listening to the radio on a weekly basis remains flat, at close to 90% reach. Among 15-24s, the proportion who listen to radio on at least a weekly basis was lower, at 83.8%, but was still a sizeable majority. Twenty-two per cent of all radio listening takes place in cars and other motor vehicles.

The commercial radio sector is in good health

Commercial stations' revenues increased in 2015, with overall growth of 1.4% to £519m. The increase came from growth in national advertising revenue.

But the way that people are listening is changing

Consumption of audio content is changing. Across all consumers aged 16+, 71% of their time spent listening is to live radio, followed by personal digital radio (10%), streamed music (7%), CDs/vinyl (6%), on-demand radio (3%) and music videos (3%). Among all adults, the use of streaming services accounts for 7% of time spent listening.

And patterns of listening are changing most among young people

The reach of audio streaming services (such as Spotify) was highest among the 16-24s, with 51% using these on a weekly basis. A quarter of 16-24s' listening time was spent on audio streaming services, compared with 7% for all adults. The total time spent listening to live radio for this age group is now 70% of what it was ten years ago.

2010	2011	2012	2013	2014	2015
90.6%	90.8%	89.5%	90.4%	89.5%	89.6%
20.1	20.5	22.2	21.5	21.4	21.4
55.2%	54.7%	54.7%	54.6%	53.8%	53.6%
£1,137m	£1,164m	£1,203m	£1,177m	£1,248m	£1,248m
£452m	£457m	£475m	£461m	£512m	£519m
£675m	£697m	£717m	£705m	£725m	£717m
£10.0m	£10.5m	£10.8m	£10.9m	£11.5m	£11.6m
3.3%	3.3%	3.3%	3.1%	3.2%	3.0%
38.2%	42.6%	44.3%	47.9%	49.0%	55.7%
24.6%	27.8%	31.2%	35.6%	37.3%	40.7%
	90.6% 20.1 55.2% £1,137m £452m £675m £10.0m 3.3% 38.2%	90.6% 90.8% 20.1 20.5 55.2% 54.7% £1,137m £1,164m £452m £457m £675m £697m £10.0m £10.5m 3.3% 3.3% 38.2% 42.6%	90.6% 90.8% 89.5% 20.1 20.5 22.2 55.2% 54.7% 54.7% £1,137m £1,164m £1,203m £452m £457m £475m £675m £697m £717m £10.0m £10.5m £10.8m 3.3% 3.3% 3.3%	No. No. No. No. 90.6% 90.8% 89.5% 90.4% 20.1 20.5 22.2 21.5 55.2% 54.7% 54.7% 54.6% £1,137m £1,164m £1,203m £1,177m £452m £457m £475m £461m £675m £697m £717m £705m £10.0m £10.5m £10.8m £10.9m 3.3% 3.3% 3.3% 3.1% 38.2% 42.6% 44.3% 47.9%	90.6% 90.8% 89.5% 90.4% 89.5% 20.1 20.5 22.2 21.5 21.4 55.2% 54.7% 54.6% 53.8% £1,137m £1,164m £1,203m £1,177m £1,248m £452m £457m £475m £461m £512m £675m £697m £717m £705m £725m £10.0m £10.5m £10.8m £10.9m £11.5m 3.3% 3.3% 3.3% 3.1% 3.2%

Key radio and audio metrics



Sector overview

People and businesses are sending fewer letters

The letters sector continues to decline, with letter volumes falling by 3.7% to 12.2 billion in 2015. The average number of items sent per month was 6.6 in 2015, of which 1.2 items on average were parcels.

But the popularity of online shopping means demand for parcel services is high

With nearly a quarter of adults (23%) claiming that they prefer to shop online, the demand for parcel services is high. Home delivery rather than click-and-collect remains the most popular option for purchases. Many operators offer parcel delivery services across the UK.

Digital substitution remains popular

Email, text messaging and mobile phone calls are still the most popular substitutes for post, with a majority of adults in the UK (56%) saying that they prefer to send emails rather than letters whenever possible. Nearly half of adults (47%) say that they only use post if there is no alternative.

Yet the public continue to value post

However, a majority of adults (55%) said that they would feel cut off from society if they couldn't send or receive post, and six in ten adults say they are very or fairly reliant on letters and cards as a way of communicating. Age was a significant determinant of the extent to which consumers valued post; 85% of over-75s thought they would feel cut off from society without post, compared to 34% of 16-24s and 50% of 25-34s.

Key post metrics

UK postal services industry	2010	2011	2012	2013	2014	2015
Addressed letter volumes	15.6bn	14.6bn	13.5bn	12.9bn	12.7bn	12.2bn
Addressed letter revenues	£4.1bn	£4.1bn	£4.2bn	£4.2bn	£4.3bn	£4.2bn
Proportion of access in total mail	44%	49%	54%	56%	56%	58%
Letter volumes delivered by operators other than Royal Mail	11.3m	8.5m	18.0m	56.1m	158.5m	67.6m
Direct mail share of total advertising spend	15.9%	14.9%	14.5%	14.1%	13.9%	14.1%

What Ofcom is doing for citizens and consumers in 2016/17

Understanding the market, and the ways in which it affects consumers, is a key determinant of our strategic planning and helps to ensure evidence-based policy-making. Below, we set out three goals and highlight the key areas of work we are undertaking in 2016/17 to help deliver these. More details are available in <u>Ofcom's annual plan</u>.

Promote competition and ensure that markets work effectively for consumers

Implementing the proposals in our Strategic Review of Digital Communications. Following the *Initial Conclusions* we set out in January, we will open up and improve access to Openreach's telegraph poles and ducts, to allow competing operators to deploy their own fibre networks. We will reform the relationship between Openreach and BT, creating Openreach as a distinct company with increased independence and an obligation to act in the interests of all its customers equally.

Improving consumers' and businesses' ability to make informed choices by providing more granular, clear and accessible information, including more detail on mobile broadband coverage, fixed broadband speeds and quality of service. We will continue our work on switching and deliver our commitment to improve SMEs' ability to engage in the market.

Monitoring price increases, providing advice and information on pricing, and making sure all consumers receive value from their communications providers, including protecting consumers who are not engaged with the market.

Secure standards and improve quality

Supporting the implementation of a new broadband universal service obligation (USO) giving everyone the right to a decent broadband service.

Delivering a step-change in the quality of telecoms services, through more demanding service targets on Openreach; rigorous enforcement and fines for under-performance; new performance league tables for all operators; and automatic compensation for consumers and businesses when things go wrong.

Implementing the conclusions of BBC Charter Renewal. We will implement changes to our regulatory role with regard to the BBC, becoming the external and independent regulator of the organisation.

Protect consumers from harm

Addressing nuisance calls by working with UK communications providers to monitor and block problematic call traffic; working with the Information Commissioner's Office (ICO) and other bodies to reduce such calls; and taking enforcement action against those generating silent and abandoned calls.

Continuing to respond to emerging consumer problems through our protection programme, which includes investigations. Current investigations include our work on cancellation processes and on complaints handling.

Upcoming research publications

Children and Parents: Media Use and Attitudes Report: October 2016

This annual report examines children's media literacy, providing detailed evidence on media use, attitudes and understanding among children and young people. The report includes findings relating to parents' views about their children's media use, and the ways in which parents seek to monitor or limit use of different types of media.

SME Experience of Communications Services: November 2016

This report will focus on small and medium-sized enterprises' experience of communications services. It will cover landline, internet and mobile services: suppliers used, satisfaction with these services, switching attitudes and behaviours.

Connected Nations: December 2016

This annual report charts the UK's evolving communications infrastructure and our progress towards becoming genuinely connected across all the nations. This publication was formerly known as *The Infrastructure Report*.

International Communications Market Report: December 2016

This annual report provides comparative international data on the communications sector. The aim of the report is to benchmark the UK communications sector against a range of comparator countries in order to assess how the UK is performing in an international context.

Ofcom in the UK nations

For data and analysis relating to specific UK nations, we produce versions of the *Communications Market Report* specifically for <u>Northern Ireland</u>, <u>Scotland</u> and <u>Wales</u>.

Source notes

Key telecoms metrics

Source: Ofcom / operators

Notes: CDS refers to corporate data services; connection figures are at year-end All revenue data excludes VAT and is in nominal terms except for average monthly household spend Fixed voice minutes shown here are likely to be understated, as they do not fully capture the use of VoIP services

Key internet and online content metrics

Source:¹Ofcom consumer research,² comScore MMX Multi Platform, UK, data taken for March 2015 and March 2016; ³IAB/PwC Digital Adspend Note: With the exception of internet, and internet on mobile phone, take-up data, all data relate to the

Note: With the exception of internet, and internet on mobile phone, take-up data, all data relate to the calendar year, meaning that 2016 data are currently unavailable. Note: Caution is advised in comparing values before and after February 2011 because of a change in

comScore methodology.

Key TV and audio-visual metrics

Source: Ofcom/broadcasters/IHS/Advertising Association/Warc/BARB/GfK. Note: Expressed in nominal terms. BBC income allocated to TV includes the proportion of the licence fee that goes to S4C. Broadcaster share as a proportion of total display advertising spend excludes direct mail and classified ads and is based on Advertising Association/Warc Expenditure Report. The AA/Warc data are net of discounts, and include agency commission, but excludes production costs. Spend on originations includes spend on nations and regions programming (not Welsh or Gaelic language programmes but some Irish language). Traditional pay-TV subscriptions are from Sky, Virgin TalkTalk and BT and are provided by Enders Analysis. Sky figures include Now TV, ROI and overseas business subscriptions. TV viewing based on BARB analysis of viewing to scheduled TV programmes on TV sets up to seven days after first broadcast. After DSO in October 2012, all homes were required to have digital TV. From 2013, data refers to the proportion of UK homes that had a working TV set as defined in BARB's Establishment Survey. Data refers to Q4 of each year. BARB changed the methodology for defining a TV set home from Q4 2015 and data comparisons to previous years should be treated with caution. VoD usage figures provided by Kantar Media – TGI. Key radio and audio metrics.

Sources: RAJAR (all adults age 15+), Ofcom calculations, based on figures in BBC Annual Report and Accounts 2015-16 note 2c (<u>www.bbc.co.uk/annualreport</u>), AA/Warc, broadcasters. Revenue figures are nominal. DAB take-up: Q1 of the following year. *Commercial and total revenue figures for 2010-2013 are not wholly comparable to 2014 and 2015 due to an amendment to the data collection methodology. Digital listening share 12 months to December.

Key post metrics

Source: Royal Mail Regulatory Financial Statements, Royal Mail Wholesale, Royal Mail Group Annual Reports, AA/Warc, Nielsen. Note: Royal Mail calendar year volume figures are derived from Ofcom calculations based on financial year figures in Royal Mail's Regulatory Statements and unaudited submissions to Ofcom and are therefore not directly comparable with Royal Mail's published accounts. Royal Mail figures relate to the "Reported Business". Prior data are not comparable. Figures are nominal.

Glossary

4G stands for 4th generation, and relates to the 4th generation mobile communications standard, which allows internet access at higher speeds than previous standards. Most premium smartphones can use 4G services while still being compatible with the previous standards, 2G and 3G.

Instant messaging is the exchange of messages through a software application in realtime. The delivery method differs from texting in that instant messages are sent via the internet, whereas traditional SMS texts are sent over cellular networks. Examples include WhatsApp and Facebook Messenger.

Superfast broadband is defined by Ofcom as connections achieving speeds of at least 30Mbit/s. The government's definition of superfast broadband is those connections with speeds of at least 24Mbit/s.

Video-on-demand (VoD) is a service or technology that makes audio-visual content available for immediate consumption, as opposed to traditional linear television, where programming is broadcast following a strict schedule. In general, most of the content that is offered via VoD services is professionally-made long-form content, such as TV programmes and films. Examples of VoD services include BBC iPlayer, ITV Hub, All4, Netflix and Sky Go.