
EPG Prominence

A report on the discoverability of PSB and local TV services

About this document

The Digital Economy Act 2017 (DEA) added a duty to the Communications Act 2003 for Ofcom to, from time to time, prepare and publish a report dealing with the provision by electronic programmes guides of information about and access to public service channels and video on demand content provided by these broadcasters.

This report is the first one in fulfilling our new duty under the DEA and provides an assessment of the availability and discoverability of PSB and local TV content. It considers the range of TV platforms and devices that are available, how people watch TV, and how PSB content is discovered – including through channels, video on-demand players (such as BBC iPlayer or All 4) and through individual pieces of content available on-demand, for instance through recommendations or ‘top picks’.

Alongside this report, we have launched a consultation on proposed revisions to the EPG Code and options for the future regulation of prominence for video on demand services.¹

¹ Review of the prominence regime: Consultation on proposed changes to the linear EPG Code and future of the regime: <https://www.ofcom.org.uk/consultations-and-statements/category-1/epg-code-prominence-regime>

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1. Executive Summary

Background

Public service broadcasters and prominence

- 1.1 As required under the Communications Act 2003 (“the Act”), Ofcom has put in place a code on the provision of electronic programme guides (EPGs) (“the Code”). The Code requires a set of designated channels² to be given “appropriate prominence”. Licensed EPG providers must comply with this code.
- 1.2 The Digital Economy Act 2017 (DEA) added a duty to the Act for Ofcom to prepare and publish a report on the provision by EPGs of information about programmes included in public service channels or provided by means of on-demand programme services by persons who also provide public service channels, and the facilities provided by such guides for the selection of, and access to, such programmes. Along with publishing that report, Ofcom is required to review and revise the Code.³

This report

- 1.3 This report is the first one in fulfilling our new duty under the DEA, and provides an assessment of the availability and discoverability of PSB and local TV content.
- 1.4 We consider the range of TV platforms and devices that are available, how people watch TV, and how PSB content is discovered – including through channels, video on-demand players (such as BBC iPlayer or All 4) and through individual pieces of content available on-demand, for instance through recommendations or ‘top picks’. In preparation of this report, we have consulted with a number of stakeholders.⁴
- 1.5 Alongside this report, we have launched a consultation on proposed revisions to the Code and the future of the regime.⁵

Market overview

The media and technology landscape is changing

- 1.6 The ‘prominence regime’ was established in the 2003 Act at a time when the number of broadcast TV channels had increased significantly, and a range of different platforms

² The linear channels which are afforded prominence are set out in legislation. These are all of the BBC channels, the Channel 3 services, Channel 4, Channel 5, S4C and local TV channels.

³ Digital Economy Act 2017, Section 95

⁴ We requested information from and / or met with the following stakeholders: S4C, Virgin Media, Digital UK, Sky, Viacom, Channel 4 Corporation, STV, ITV, BBC, Local TV Network, YouView, Freesat and COBA. We also met a range of stakeholders in the nations.

⁵ Review of the prominence regime: Consultation on proposed changes to the linear EPG Code and future of the regime: <https://www.ofcom.org.uk/consultations-and-statements/category-1/epg-code-prominence-regime>

through which to watch TV were available, but the vast majority of TV content was still watched live. Since then, the range of ways to watch TV has grown significantly; viewers can watch broadcast TV live or via recordings, and can stream and download content via the internet. Furthermore, traditional TV platforms are increasingly using internet connections to provide a broader range of services (e.g. the latest Sky box, Sky Q or Virgin Media's TiVo V6 box).

- 1.7 The take up of a range of devices through which content can be consumed has also increased. This includes devices such as smart TVs, internet enabled games consoles, internet set top boxes, and mobile devices. The increasing take up of mobile devices, wifi and mobile broadband has implications for out of home consumption. Viewers have the freedom to watch what they want, when they want and wherever they want to watch it.
- 1.8 There has also been significant innovation in user interfaces (UIs) to enable consumers to navigate the wider range of content now available. UIs have moved away from simple channel-based EPG lists to advanced search and recommendation models. Some manufacturers also produce remote controls with shortcuts to search live and on-demand content or directly access on-demand services, and search tools have become more sophisticated (e.g. through predictive text search and voice search). Furthermore, the proliferation of set top boxes (STBs) and smart TVs means there are now a range of devices providing user interfaces allowing users to discover content.

TV consumption – how are audience habits changing?

- 1.9 The explosion in choice in content providers and services such as subscription video-on-demand (SVoD) and catch up TV is leading to important shifts in viewing habits, although live TV continues to account for the majority of TV viewing. 91% of adults still watched live TV in an average week in 2017, and, among all individuals, 86% of broadcast TV viewing (on a TV set) was watched live. However, audiences are watching less scheduled television and this appears to be a permanent structural trend.
- 1.10 Young people's viewing is changing markedly. Across all audio-visual viewing on all devices, live TV accounts for 58% of viewing time among all individuals, and 34% among 16-34s, with other viewing now accounting for the majority of young people's time. Younger audiences in particular are also exploiting the freedom of being able to watch what they want, when they want, through portable devices such as a smartphone or tablet.
- 1.11 PSB content continues to maintain a majority share of broadcast TV viewing: eight in ten people watch at least one of the five main PSB channels each week, and just over half of all television viewing of broadcaster content on television sets was to the main five PSB channels. This is broadly unchanged since 2013, but has fallen in the longer term, as the number of channels available has increased.

Platform and device take up

- 1.12 Digital terrestrial television (DTT) is the most common way to receive TV, as 39.8% of households have DTT only (i.e. without an additional platform, such as satellite or cable).

Pay digital satellite is in 30.4% of homes, and digital cable services, mainly delivered by Virgin Media, are in 14.9% of homes. 6.3% of homes have a hybrid IPTV and DTT service only⁶, and 6.7% have free-to-view satellite services. In the last five years, the number of hybrid DTT and IPTV only homes has grown significantly, while free-to-view digital satellite has remained stable. Both pay digital satellite and digital cable have seen slight declines in recent years.

- 1.13 More than half of TV households now have a smart TV or a TV connected to the internet via another device. The most popular way of connecting a TV to the internet is via a smart TV, at 42% of households, up from just 5% in Q1 2012. Twenty per cent of TV households have used a games console to connect their TV to the internet to watch something on the TV screen. Eleven per cent of households now use an internet connected dongle or box (such as NOW TV set-top box, Roku, Google Chrome, Amazon Fire TV stick, Amazon Fire TV, Apple TV), up from 5% in H1 2016.
- 1.14 Take up of portable devices has also grown significantly: 78% of people have a smartphone and 58% have a tablet. Since 2012 ownership has grown from 39% and 11% respectively.

The concept of prominence

- 1.15 Evidence suggests that EPG positioning is likely to have a significant impact on a channel's performance: live TV remains a central component of TV viewing, and people are most likely to state that they use the EPG when asked how they find out what's on TV. Evidence also suggests that all things being equal being higher up in an EPG drives increased viewing. This includes a study from FEH Media Insight in 2013, along with a more recent study in 2017, which supported the argument that EPG positioning is likely to have a significant impact on a channel's performance. In addition, BARB viewing data shows that reach generally decreases as EPG position (i.e. the channel's number) increases, although we recognise that there are a number of other characteristics of a channel that affect its performance, such as target audience, quality of content and promotions.
- 1.16 There is not the same evidence available to analyse the effect of prominence on video-on-demand (VoD) viewing. However, based on the trends relating to linear EPG prominence, we can extrapolate that having content located in a more prominent position in the VoD space is also likely to drive viewing. As above, we also note that the position of content is only one of a range of factors that drives users to click on a particular VoD player or programme.

⁶ Hybrid DTT and IPTV services are hybrid services that provide the bulk of their channels via the DTT platform and offer additional channels and functionality through a broadband connection (such as access to online video services and programme recordings).

Availability and discoverability of PSB and local TV content

Current PSB and local TV prominence

- 1.17 We have tested the availability and discoverability of PSB and local TV content from the main EPG providers and a number of internet enabled set top boxes.
- 1.18 Firstly, we have analysed the EPG providers' UIs and EPGs. We found that on most platforms the linear EPG is the first available option for viewers to select. The exception to this is Sky's latest set top box Sky Q, where the home page landing point is on a "Home" menu, which includes access to personalised recommendations, top picks and last viewed shows.
- 1.19 On the EPGs themselves, across all of the boxes we tested, channels are ranked in ascending order, with the number of channels listed per page varying from six to nine. Most boxes allow viewers to filter channels by genre.
- 1.20 Regarding the availability and discoverability of PSB and local TV channels on the linear EPGs, we found that:
- The main five PSB channels⁷ are located in slots 1 to 5 or, where the EPG numbering begins at number 100 or 101, 101 to 105, with the exception of in Wales, where S4C is at slot 4 or 104 on all platforms except for Virgin Media. Conversely, in Wales, Channel 4 is further down the EPG on all platforms except for Virgin Media.
 - BBC Four is generally in a fairly high position on the EPG, at channel 9 on DTT, 107 on Freesat and Virgin Media and 116 on Sky.
 - The BBC's children's and news channels are further down the all channels EPG lists, as they sit within their specific genre groupings. Where genre filtering is available, they tend to be on the first page of the relevant genre menu. The exception to this is children's channels on Sky, where the BBC's CBeebies and CBBC channels are found on the second page of the children's genre menu.
 - BBC Alba and the local TV channels' positions in the EPG vary considerably by platform. In particular, they are furthest down the EPG on Virgin Media, with local TV channels at 159, and BBC Alba at 161.
- 1.21 Our assessment of the availability and discoverability of PSB and local TV VoD content on connected devices showed that:
- The main PSBs' (BBC, ITV, Channel 4 and Channel 5) VoD players are generally available on the main EPG service provider platforms. The nation specific PSBs' (STV & S4C) players are not available on the main pay TV platforms. There are no known local TV VoD players.
 - Once in the VoD space, the PSB players are easily discoverable on the main EPG service provider's TV platforms.

⁷ By main five PSB channels, we mean BBC One, BBC Two, ITV/STV, Channel 4 and Channel 5

- The main PSB VoD players are also available on a range of internet media streaming devices. In some cases, they are pre-loaded, whereas on others, consumers can download them. In addition, on some devices it is possible to re-order the apps on menus, and for the some, the ordering depends on the apps used most recently.
- Recommendations are now common across all platforms. Platforms generally provide recommendations based on content they seek to promote e.g. Freeview’s “Showcase” and on consumer viewing habits e.g. BBC iPlayer’s “Recommended for you”. In some cases recommendations are based on the popularity of content e.g. the “Trending” recommendations menu on Virgin Media.
- Although PSB content is generally available in the recommendations menu of most EPG provider platforms, the free-TV platforms tend to have more of these in their recommendations compared with the pay-TV platforms. In some cases, the availability of PSB within recommendations is dependent on the existence of commercial deals between PSBs and the platform providers.

Next steps

- 1.22 The findings in this report have informed proposed revisions to the Code for linear television services, as set out in our consultation. We are also seeking views on principles and ideas that could underpin any future changes that Parliament could make to the statutory regime, to maintain the prominence of PSB content and services.⁸ Any changes to the prominence regime would require legislative change, so stakeholder responses to issues raised with regards to the future of the regime will inform our recommendations to Government.
- 1.23 As part of our duty under the DEA, we will update this report from time to time.

⁸ The consultation is open until 5 October 2018 and can be found here <https://www.ofcom.org.uk/consultations-and-statements/category-1/epg-code-prominence-regime>

2. Background

Public service broadcasters and prominence

Ofcom has put in place a code of practice for the provision of electronic programme guides (EPGs). The Code requires public service broadcasters and local TV channels to be given “such degree of prominence as Ofcom consider appropriate”

- 2.1 Electronic programme guides (EPGs) are services which consist of the listing or promotion of programmes included in radio and television services⁹, and which provide a facility for obtaining access to the services listed or promoted in the guide.¹⁰ They are screen-based menus of channels and/or programmes which allow viewers and listeners to click through to a programme of their choice using their remote control. Providers of EPGs which are broadcast or transmitted such that they comprise a television licensable content service¹¹ – linear EPGs – are licensed and regulated by Ofcom.¹²
- 2.2 Under the Communications Act 2003 (“the Act”), Ofcom has a duty to draw up, and from time to time review and revise, a code giving guidance to be followed by providers of electronic programme guides (EPGs) (“the Code”).¹³ The Code must include requirements relating to the giving of such a degree of prominence as Ofcom considers appropriate to:
- a) the listing and/or promotion of the programmes included in each public service channel; and
 - b) the facilities enabling the audience to select or access the programmes included in the EPG directly from the EPG (i.e. ensuring there is a function in the EPG that enables views to ‘click through’ to view the relevant programme).
- 2.3 The designated channels entitled to prominence are set out in legislation. These are: all BBC channels; the Channel 3 services (including ITV and STV); Channel 4; Channel 5; S4C and local TV channels.¹⁴ The prominence requirements apply to the provision of programmes on the broadcast channels themselves, and, as such, does not extend to content provided on-demand (for example through the BBC iPlayer or ITV hub).

⁹ These must include services provided by persons other than the provider of the guide.

¹⁰ Section 310(8) of the Communications Act 2003

¹¹ Within the meaning of section 232 of the Communications Act 2003

¹² Currently Ofcom has no power to regulate non-linear EPGs, for example those which provide access to video-on-demand content

¹³ Section 310 of the Communications Act 2003

¹⁴ Section 310(4) of the Communications Act 2003. Local TV channels have been entitled to prominence following an amendment made with effect from 31 January 2012 through the Code of Practice for Electronic Programmes Guides (Addition of Programme Services) Order 2011 ((SI 2011/3003)

- 2.4 The Code was first published in 2004, following public consultation. Licensed EPG providers must comply with the Code.¹⁵
- 2.5 As noted, the Code applies to those services providing a linear EPG, which lists and gives access to linear TV programmes. Currently, internet devices, such as the inbuilt internet functionality of a smart TV¹⁶ and streaming devices (e.g. Amazon Firestick, Apple TV), do not provide a linear EPG, and as such, these are currently out of scope.

Ofcom has a new duty to prepare and publish a report on EPGs and public service channels

- 2.6 The Digital Economy Act 2017 (DEA)¹⁷ added a duty to the Communications Act 2003 for Ofcom to, from time to time, prepare and publish a report dealing with:
- a) the provision by electronic programme guides of information about programmes:
 - i) including in public service channels, or
 - ii) provided by means of on-demand programme services¹⁸ by persons who also provide public service channels, and
 - b) the facilities provided by such guides for the selection of, and access to, such programmes.¹⁹
- 2.7 We have consulted a number of stakeholders in preparing this report²⁰, to better understand the technologies they use to deliver content, how viewers use these technologies to find content and the concerns they have about content discovery in a changing market.
- 2.8 The findings in this report have informed proposed revisions to the Code, as set out in our consultation. We are also seeking views on extending the prominence regime to VoD and other routes to PSB content. We welcome further contributions as part of our consultation. Any changes to the regime would require legislative change, so stakeholder responses to

¹⁵ Ofcom, Code of Practice on electronic programme guides, available at: https://www.ofcom.org.uk/data/assets/pdf_file/0031/19399/epgcode.pdf. The term 'EPG provider' means any organisation providing an electronic programme guide as defined by section 310 of the Communications Act under a Broadcast Act licence.

¹⁶ A smart TV is a stand-alone television set with inbuilt internet functionality. Users connect to the internet via a broadband router or modem. A smart TV also has an in-built platform providing an EPG, such as Freeview or Freesat, the functionality of which is in scope for this report.

¹⁷ Section 95(2) and (3) Digital Economy Act 2017

¹⁸ On-demand programme services are defined in section 368A of The Act. A service is an on-demand programme service if: its principal purpose is the provision of programmes the form and content of which are comparable to the form and content of programmes normally included in television programme services; access to it is on-demand; there is a person who has editorial responsibility for it; it is made available by that person for use by members of the public; and that person is under the jurisdiction of the United Kingdom for the purposes of the Audiovisual Media Services Directive.

¹⁹ Section 311A of the Communications Act 2003, inserted by section 95 of the Digital Economy Act 2017

²⁰ Pursuant to section 311A(2) of The Act (introduced by section 95 of the DEA). We requested information from and / or met with the following stakeholders: S4C, Virgin Media, Digital UK, Sky, Viacom, Channel 4 Corporation, STV, ITV, BBC, Local TV Network, YouView, Freesat and COBA. We also met a range of stakeholders in the nations.

issues and ideas related to extending the regime will inform our recommendations to Government.

This report

We have assessed the availability and discoverability of PSB and local TV content, whether on channels, players or individual programmes

- 2.9 As part of our duties under the DEA, we have undertaken an assessment of the availability and discoverability of designated channels (i.e. those PSB and local TV channels which are entitled to prominence) and VoD content provided by those broadcasters across a range of platforms and devices.
- 2.10 This report considers the range of TV platforms and devices that are available, how people watch TV, and how PSB and local TV content is discovered – including through channels, video on-demand players (such as BBC iPlayer and All 4) or through individual pieces of content available on-demand, for instance through recommendations or ‘top picks’. We have also considered how the media and technology landscape is evolving, how audience habits are changing, and what today’s TV viewing landscape looks like.
- 2.11 We have studied a range of routes for accessing content, including a range of factors:
- the content provided on the platforms’ home pages;
 - the layout of EPG lists and genre filtering options;
 - routes to accessing EPG lists;
 - slots of the PSB and local TV channels;
 - where these channels can be found on the EPG lists;
 - the availability of PSB players;
 - the availability of a ‘reverse’ or ‘backward’ EPG;²¹
 - the availability and discoverability of PSB VoD content in other areas, such as recommendations or top billings.
- 2.12 We have also reviewed the availability of on-demand PSB and local TV content via a number of popular internet enabled devices e.g. games consoles and streaming devices.

²¹ This feature allows users to scroll back in time via their EPGs to watch programmes that have already been broadcast as soon as they are made available by the broadcasters.

3. Market overview

The media and technology landscape is changing

The range of ways to watch TV has grown significantly; viewers can watch broadcast TV live or via recordings, and can stream and download TV content via the internet

- 3.1 The 'prominence regime' was established in the 2003 Act at a time when the number of broadcast TV channels had increased significantly and a range of different platforms through which to watch TV were available, but the vast majority of TV content was still watched live via broadcast TV.
- 3.2 Since then, the range of ways to watch TV has grown as the TV marketplace has developed. As a proportion of all viewing, the amount of content recorded and watched back at a later time has grown in the last ten years, largely due to an increase in take-up of digital video recorders (DVRs such as Sky+, V+ or Freeview PVRs).
- 3.3 Another major change in the marketplace has been brought about by the ability to stream and download content via the internet. As internet take up has increased (from 79% in 2012 to 87% in 2018)²² and as broadband speeds improve, viewers now have a wealth of choice over how, when and what they watch, for example streaming via a tablet in the home, watching content on the go via a smartphone.
- 3.4 As well as growth in channels and on-demand programmes and services from established broadcasters (the iPlayer from the BBC, NOW TV from Sky, All 4 from Channel 4, ITV Hub from ITV and My5 from Channel 5), we have also seen the emergence of big global players: over recent years, Netflix and Amazon Prime Video have grown their audiences from nothing to 9.1 million households and 4.8 million households respectively.²³ YouTube reaches more than 40 million people per month in the UK²⁴ and Apple and Facebook have now also entered the online video content market.

TV platforms are increasingly using internet connections to provide a broader range of services

- 3.5 Hybrid platforms, combining broadcast and online content, have become increasingly common, allowing more TV to be delivered via the internet. The Freeview service has been available through a number of over the top (OTT) providers since 2012. In Q1 2018, 8% of homes had any one of BT TV/YouView/Talk Talk/PlusNet.²⁵

²² Source: Ofcom Technology Tracker Q1 2012 and H1 2018

²³ Source: BARB Establishment Survey, Q1 2018

²⁴ Source: comScore MMX Multi-Platform, Dec 2017, Desktop age 6+, Mobile age 18+. MMX Multi-Platform includes desktop browsing, desktop video streams, smartphone browsing & apps, tablet browsing & apps

²⁵ Source: BARB Establishment Survey, Q1 2018

- 3.6 In addition, the Freeview platform itself now also enables viewers to watch catch up as well as live TV through its Freeview Play service, which launched in 2015. This uses an internet connection to provide viewers with access to the broadcasters' on-demand services alongside live TV delivered via broadcast.
- 3.7 Pay TV platforms are also increasingly utilising internet connections as part of their services. The latest Sky box, Sky Q, which launched in 2016, uses an internet connection to merge live TV with catch-up and on-demand content as well as streaming video and audio content (it also enables connections between boxes in the household, and portable devices through the Sky Q app). Virgin Media's TiVo V6 box also supports similar features and uses an internet connection to enable access to catch-up and on demand content as well as other apps, such as Netflix.

Take up of a range of devices through which content can be consumed has increased

- 3.8 The number of devices people can watch TV content on has also grown significantly. As well as an increasing variety of devices that enable viewing through the TV set via the internet, such as smart TVs, internet enabled games consoles, internet set top boxes/dongles (such as NOW TV, Apple TV, Amazon Firestick), smart DVD players, (as well as, as noted above, the more recent 'traditional' set top boxes which are generally internet enabled) the take up of portable devices has also grown. Over three quarters of adults (78%) now have an internet enabled smartphone and 58% of households have a tablet device.²⁶
- 3.9 The increasing uptake of mobile devices, wifi and mobile broadband has implications for out of home consumption: viewers now have the freedom to watch what they want, when they want and wherever they want to watch it. In particular, the greater availability of 4G mobile has allowed more people to watch TV on the move without an appreciable loss of picture or sound quality; in H1 2018, 85% of smartphone owners had a 4G service, up 9pp points from H1 2017.²⁷

There has been significant innovation in user interfaces to enable consumers to navigate the wider range of content now available

- 3.10 User interfaces (UIs)²⁸ across many devices have moved away from simple channel-based EPG lists to advanced search and recommendation models, often built around programmes content and personal viewing data. Major platforms including Sky, Virgin Media and Freeview have all upgraded their set-top boxes in recent years and changes have included making access to on-demand content much easier for the viewer. Some manufacturers also produce remote controls with shortcuts to search live and on-demand content (e.g.

²⁶ Source: Ofcom Technology Tracker H1 2018

²⁷ Source: Ofcom Technology Tracker H1 2017 and H1 2018

²⁸ User interfaces are visual parts of software applications through which consumers interact with the devices used to watch TV. They facilitate the discoverability of TV content and may influence the choice of programmes consumed.

the search button on Freesat and BT YouView) or to directly access on-demand services such as FreeviewPlay and Netflix, facilitating quicker access to on-demand content.

- 3.11 Search tools have also become more sophisticated, with lists of what's on, players' apps and recommendations being supplemented by predictive text search (e.g. Freeview Play) and voice search (Sky Q and Amazon Fire TV), reducing the need for consumers to use the EPG to access content.
- 3.12 The proliferation of set top boxes and smart TV means there are now a range of players providing content discovery user interfaces. For instance, TV manufacturers such as Samsung provide access to content through their smart hub, Amazon allows content discovery via its Firestick. New internet platforms' interfaces such as Netflix and Amazon Prime tend to focus on genres and individual titles.

New international players have emerged and there are more ways of distributing content

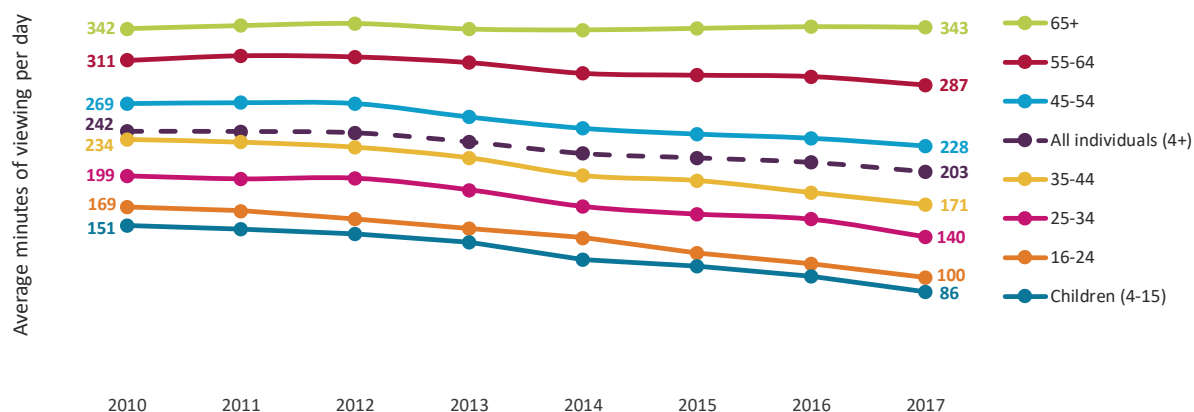
- 3.13 As noted above, access to television-like content is no longer limited to traditional TV platforms. Providers offering streaming and download services via the internet, such as Netflix and Amazon Prime, are increasingly popular. These services operate as platforms and deliver content directly through their own interfaces, taking an increasing amount of viewing share. They are investing in new commissions as well as acquiring third-party archive material and they are also commissioning content for local markets, with an increasing amount of co-commissions (e.g. Netflix and the BBC's co-production of Troy: Fall of a City).
- 3.14 The ways in which content is distributed is becoming more complex, as the number of firms involved in the production and distribution of content grows. Content providers include a wide range of different companies who own content rights, either through in-house or commissioned third party productions. Online services such as YouTube also act as platforms providing access to a range of VoD content, but typically as an aggregator with more limited curation or editorial control. These services, widely consumed by younger audiences, provide a huge variety of user-generated content (amateur or professional) as well as content produced by traditional media companies.
- 3.15 Some players in the TV content supply chain have a vertically integrated model. For example, Sky are both a content provider as well as a distributor (through the Sky platform) and also provide devices for consumers to view content, through their set-top boxes. Others such as Virgin Media distribute content and also provide devices for consumers to view content but do not provide content.

TV consumption – how are audience habits changing?

The explosion in choice is leading to important shifts in viewing habits, although live TV continues to account for the majority of TV viewing

3.16 Audiences, especially young people, are watching less scheduled television, and this appears to be a permanent structural trend. Broadcast television viewing has been falling steadily, as on-demand and online services compete with broadcasting services for audience time. Viewing of traditional broadcast television on a television set has fallen by 16 per cent, from 242 minutes per day in 2010 to 203 minutes a day in 2017. This decline has been steeper among young people, with viewing down by 41% among 16-24s, and by 43% among children (aged 4-15) between 2010 and 2017. See Figure 1.

Figure 1: Average total TV daily viewing by age (in minutes), 2010-2017



Source: BARB. Network.

3.17 However, live TV remains a central component of TV viewing. Some 91% of adults watched live TV in an average week in 2017, and, among all individuals, 86% of broadcast TV viewing (on a TV set) was watched live, although this has fallen, from 93% in 2010, as catch up viewing has increased.²⁹ Ofcom research has also shown that traditional live TV is still at the heart of our viewing experience. When adults aged 16+ were asked what they would do first when wanting to watch a TV programme or film, the top answer was ‘switch on the TV and see what’s airing on live broadcast TV’, chosen by 50% of people. The second-ranked answer was ‘go straight to Netflix, Amazon Prime, Now TV or other on-demand services that you pay a monthly subscription for’ (12%).³⁰

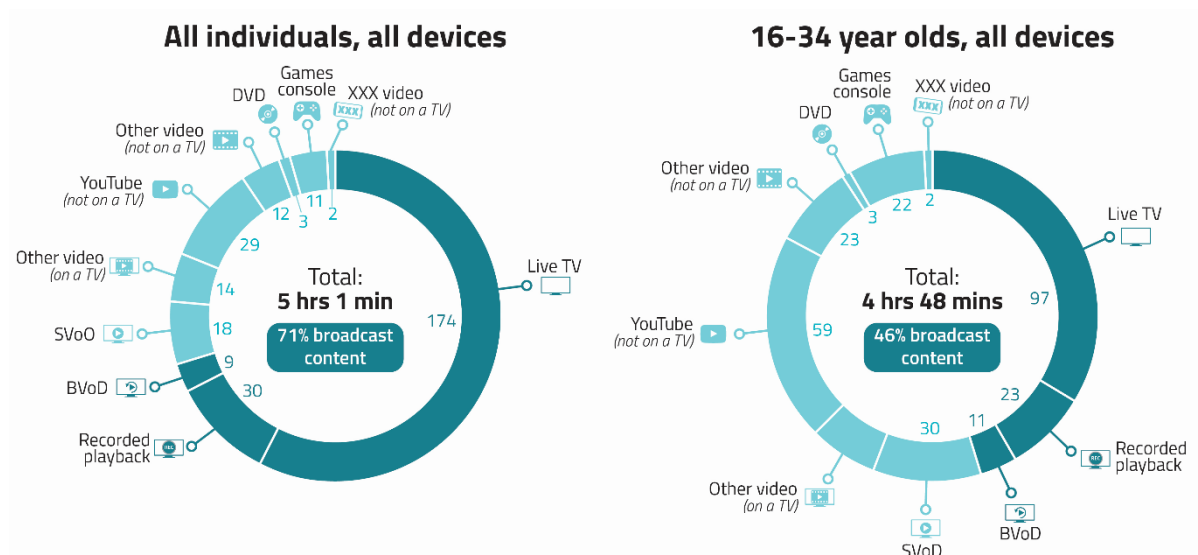
²⁹ Source: BARB. Network. Reach criteria: 3+ consecutive minutes, full weeks used.

³⁰ Use of on-demand and streaming services CMR research 2017 – Populus. Published in the Communications Market Report 2017, pages 12 to 25, https://www.ofcom.org.uk/_data/assets/pdf_file/0017/105074/cmr-2017-uk.pdf

Young people’s viewing habits have changed more dramatically, with SVoD playing an increasingly significant role

- 3.18 As shown above, young people are consuming less broadcast TV than older people, and the gap is widening (see Figure 1). When including all video viewing time across all devices, broadcast TV still accounts for the bulk of viewing, although it is lower among younger people: 71% for all audiences, as against 46% for 16-34s. Across all AV viewing on any device, live TV accounts for 58% of viewing time among all individuals, and 34% among 16-34s, as shown in Figure 2.
- 3.19 Viewing to SVoD services now accounts for 18 minutes per day for all individuals but is higher at 30 minutes per day for those aged 16-34, accounting for 10% of all their total viewing. This is higher than the 9 minutes to broadcaster VoD content among all individuals, and 11 minutes among 16-34s (see Figure 2).

Figure 2: Total audiovisual time spent per day, all individuals and 16-34s: 2017



Source: Ofcom/BARB/BARB TV Player (census data)/Touchpoints/ComScore. See detailed methodology section of Ofcom’s Media Nations 2018 report³¹ of how the sources are used to construct a total estimated view of video watched.

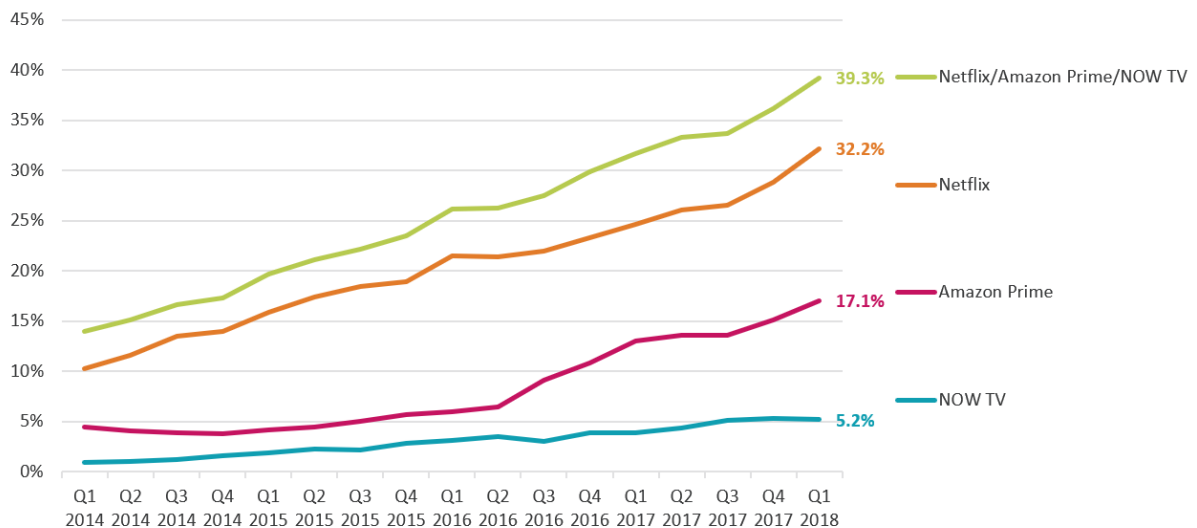
- 3.20 More than 39% of households now have a subscription to an SVoD service³²: Netflix is now in 32% of UK households, while take up of Amazon Video is at 17%. Sky’s OTT offering, Now TV, is now in 5% of UK households. All have seen significant growth in the last few years (see Figure 3); overall SVoD take up has increased by 191% since Q1 2014 with the

³¹ Available here: https://www.ofcom.org.uk/_data/assets/pdf_file/0028/115993/media-nations-2018-methodologies-annex.pdf

³² This includes Netflix, Amazon Prime and Now TV. It does not include other SVoD providers, such as Disney Life. When including Disney Life, the total proportion of households rises from 39.3% to 39.4%

strongest growth to NOW TV (although from the smallest base).³³ Overall SVoD take up is higher in households with children and young adults.³⁴

Figure 3: % Households with subscription to SVoD services



Source: BARB Establishment Survey.

PSB content continues to account for more than half of TV viewing

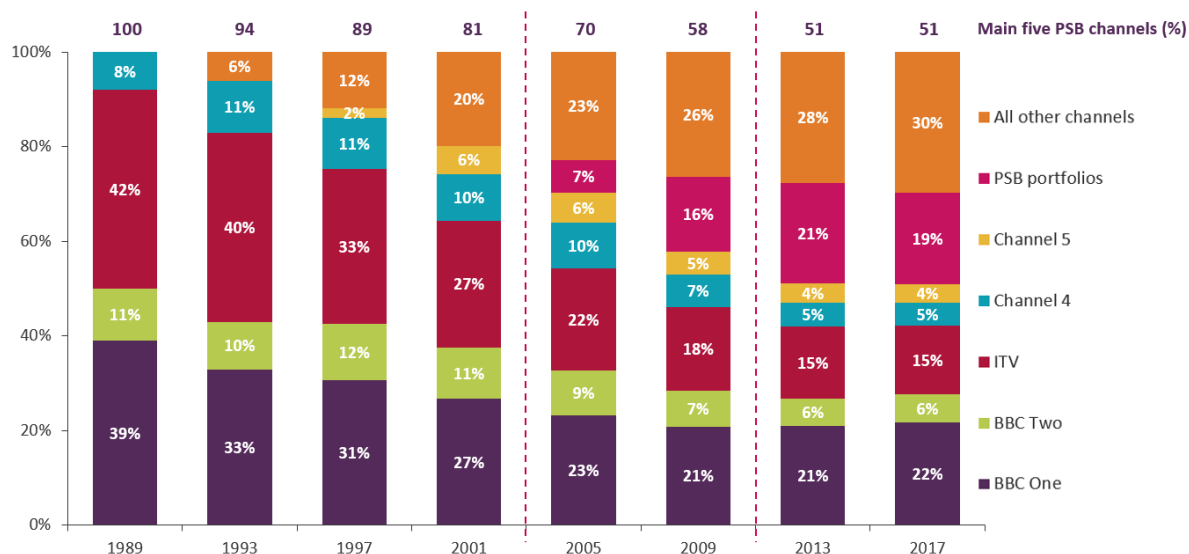
3.21 Consumer choice on broadcast TV has expanded greatly in recent years; there are now more than 300 BARB-reported TV channels. But despite this, viewing to PSB content remains high. Eight in ten people (81%) watched at least one of the five main PSB channels in a typical week in 2017, although this has fallen by 8pp since 2010.³⁵ In 2017 half of all television viewing of broadcaster content on television sets was to one of the five main PSB channels, broadly unchanged since 2013 (see Figure 4).

³³ Source: BARB Establishment Survey Q1 2014 and Q1 2018

³⁴ 59% of households with children have SVoD services, 65% of households with 16-24s do, and 62% of households with 16-34s do. These figures include Netflix, Amazon, Now TV and Disney Life. They are comparable to the 39.4% figure for all households noted in footnote 32. Source: BARB Establishment Survey Q1 2018.

³⁵ Source: BARB. All individuals (4+), network. Reach criteria: 15+ consecutive minutes, full weeks used.

Figure 4: Channels' shares of all broadcaster viewing: 1989-2017



Source: BARB, TAM JICTAR and Ofcom estimates, individuals (4+). Network. New BARB panels introduced in 2002 and 2010, as a result, pre- and post-panel change data must be compared with caution (see dotted lines). Channel 4 includes SAC up to 2009. The main five PSB channels include viewing to their HD channel variants but exclude viewing to their +1 channels

Platform and device take up

Digital terrestrial television (DTT) is the most common way to receive TV. Pay digital satellite is the next largest platform, in almost a third of homes

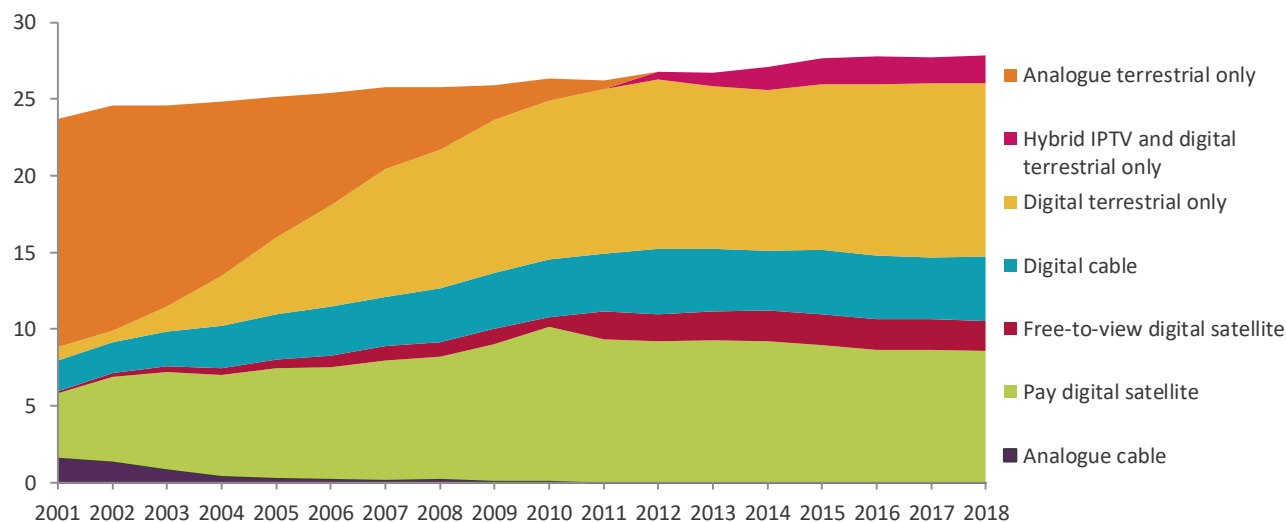
- 3.22 Some 11.3 million homes, or 39.8% of all TV households in the UK, have digital terrestrial television only (i.e. without an additional platform such as satellite or cable), an increase of 2.3% compared with 2012. Pay digital satellite is in 30.4% of all UK households, having declined marginally from 33.6% of homes in 2012. Digital cable services, which are mainly delivered by Virgin Media, are in 14.9% of UK households, just down from 15.7% of homes in 2012.³⁶
- 3.23 In total, 8% of homes have a hybrid DTT and IPTV service³⁷ such as BT Vision and YouView, while a slightly smaller proportion (6.3%) have a hybrid DTT and IPTV service only (i.e. without satellite, cable or any other platform). Hybrid DTT and IPTV only has grown significantly, from 1.7% in 2012, although has been more stable in recent years. Some 6.7%

³⁶ BARB Establishment Survey Q4 2012 – Q1 2018

³⁷ Hybrid DTT and IPTV services are hybrid services that provide the bulk of their channels via the DTT platform and offer additional channels and functionality through a broadband connection (such as access to online video services and programme recordings). This category does not include smart TVs. This total includes those reported separately in the BARB Establishment Survey: BT Vision, YouView, TalkTalk and Plusnet. Note that EE TV is not included in this Hybrid DTT and IPTV total, as it is not reported separately in the BARB establishment survey, it is however included in the total DTT figure. Also note that in June 2017 BT Vision was switched off. Customers can still use the BT Vision set top box, but it has limited functionality.

of homes have free-to-view satellite services such as Freesat, stable compared with 2012 (6.4%).³⁸ Figure 5 shows the trends in platform take up.

Figure 5: Platform take-up TV households (millions)



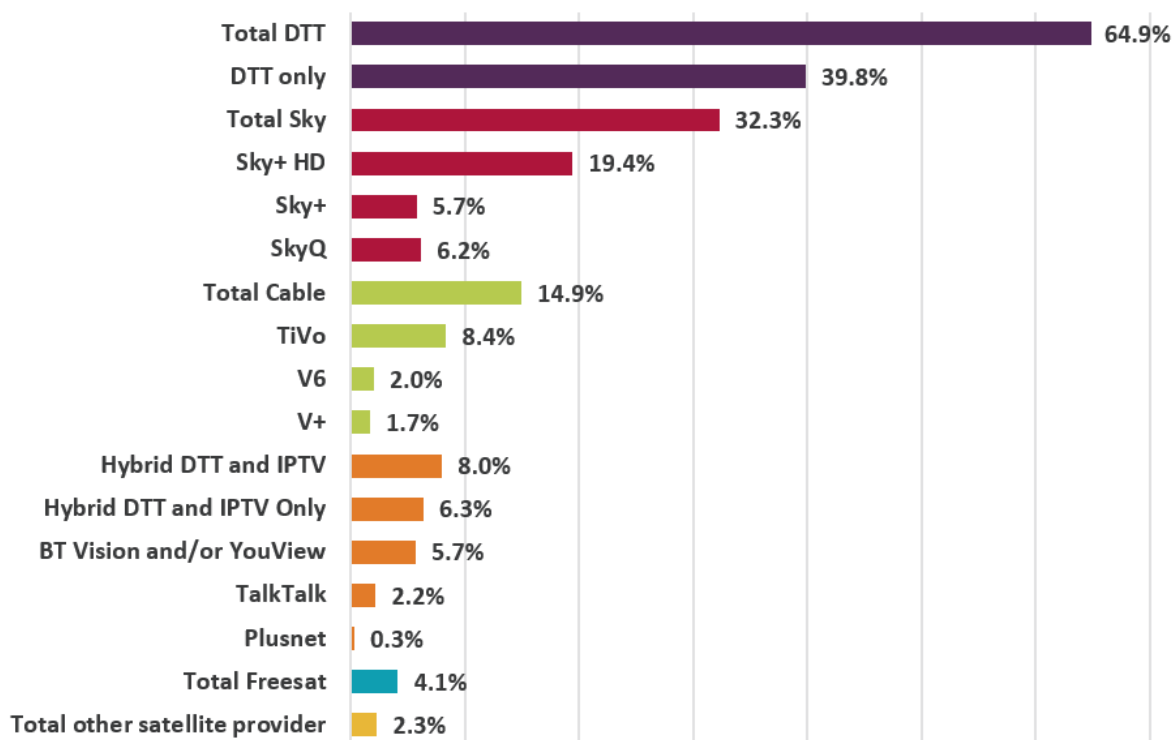
Source: BARB Establishment Survey. Household level data, all TV sets in home therefore there are platform overlaps. Notes: Data points are based on Q4 of each year until 2018 where it is Q1. BARB changed their methodology on the definition of a TV set owning household in Q4 2012. From Q4 2015 the 'claimed usage' element was removed, which led to an increase in the TV set homes population. *Digital switchover was completed across the UK in October 2012. Data from 2013 therefore refer to TV households as a % of all households. Digital terrestrial TV only = receives digital TV through an aerial and not through DSAT/DCAB or other platforms. Hybrid IPTV digital terrestrial only = receives digital terrestrial TV through any of BT TV/TalkTalk TV/YouView/Plusnet TV and not DSAT/DCAB/other platforms.

3.24 Looking at specific platforms and devices, in total 32% of homes have Sky, with the majority having the Sky+ HD box. Sky's latest set top box, SkyQ, is now in 6% of homes. Of the 15% who have cable, 8% have the TiVo box, 2% have the V6 box and 1.7% have V+.³⁹ Hybrid DTT and IPTV is most likely to be taken up by BT Vision and/or YouView, while 4.1% of homes have Freesat, and 2.3% have another satellite provider (see Figure 6).

³⁸ BARB Establishment Survey Q4 2012 – Q1 2018

³⁹ A further 1.9% were not sure of the box type

Figure 6: Platform and device take up, % of households



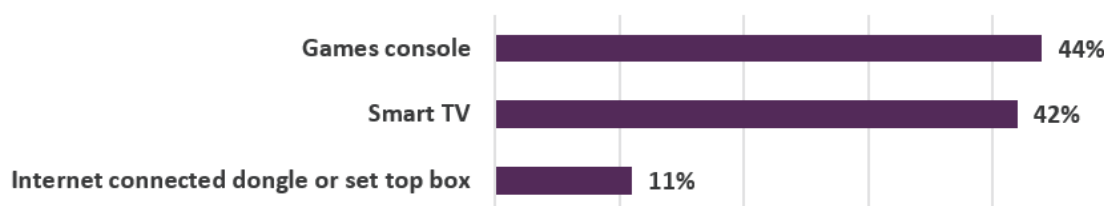
Source: BARB Establishment Survey, Q1 2018

More than half of TV households have a smart TV or a TV connected to the internet via another device

3.25 In H1 2018, 52% of households with a TV has a smart TV or a TV connected to the internet via another device, such as a set top box, games console or streaming media stick. The most popular way of connecting a TV to the internet is via a smart TV, at 42% of households in H1 2018, up from just 5% in Q1 2012. Of those with Smart TVs, 83% connect their TV to their broadband service. 20% of those with a TV in the household have used a games console to connect their TV to the internet to watch something on the TV screen. (A total of 44% of households have a games console). In H1 2018, 11% of households used an internet connected dongle or box (such as NOW TV set-top box, Roku, Google Chrome, Amazon Fire TV stick, Amazon Fire TV, Apple TV), up from 5% in H1 2016.⁴⁰ The take up of games consoles, smart TV and internet connected dongles or set top boxes is shown in Figure 7.

⁴⁰ Source: Ofcom Technology Tracker Q1 2012, H1 2016 and H1 2018

Figure 7: Household take-up of devices



Source: Ofcom Technology Tracker, H1 2018. Base: All adults aged 16+ (n=3730)

Take up of portable devices has grown significantly: 78% of adults have a smartphone and 58% have a tablet

3.26 As noted above, in 2018 some 78% of adults owned a smartphone, up from 39% in 2012. Take up is particularly high among younger adults, as 95% of 16-34s own one. Overall, 48% of internet users consider that the smartphone is the most important device for internet access, and this increases to more than 70% among 16-34s (72% for 16-24s, 71% for 25-34s). Six in ten (58%) of adults own a tablet; this has increased from 11% in 2012, and from just 2% in 2011. Tablet ownership is more evenly split by age than smartphone ownership.⁴¹

Viewing by platform and device

The amount of live viewing people watch can vary significantly depending on the device in use

3.27 Looking at viewing to the TV as a whole, BARB data shows that the majority of viewing (69.8%) is to live TV. A further 13.7% of viewing is to 'time-shifted' content (i.e. content recorded or broadcaster video-on-demand content watched within 28 days of broadcast), with the remaining 16.6% being categorised as 'non-broadcast' content.⁴² This includes all catch up content watched after 28 days, SVoD content and other content (such as watching DVDs or playing games consoles).

3.28 However, these proportions can vary significantly by device in use: when viewing directly through the TV set (which accounts for the largest proportion of viewing overall, at 34.4%) (either via an integrated tuner or smart TV functionality) a greater proportion is watched live (80.8%) with a small amount of time-shifted viewing (3%). Viewers watching through Sky are more likely than average to watch time-shifted content, and less likely to watch 'non-broadcast' content. When compared with Sky viewing, a greater proportion of viewing through cable set top boxes is to non-broadcast content (10.7%), perhaps due to

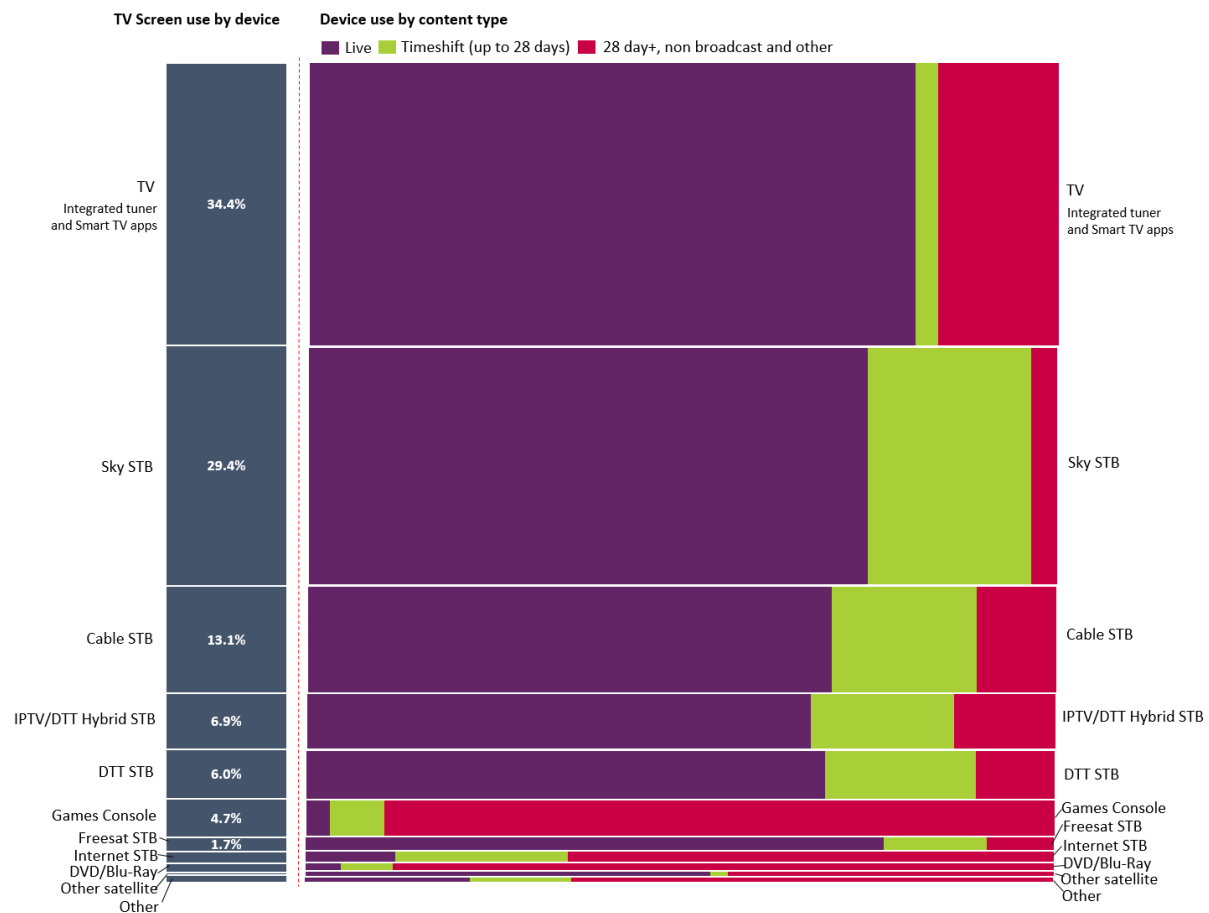
⁴¹ Source: Ofcom Technology Tracker Q1 2011, Q1 2012 and H1 2018

⁴² Note, this is for viewing via a TV set only, measured by BARB, so the proportions and categories are different from those at paragraphs 3.18 to 3.19

the availability of apps such as Netflix (as noted above, SVoD content falls into the ‘non-broadcast’ content category).

3.29 Internet set top boxes (such as Apple TV or Roku boxes)⁴³, account for a small proportion of all TV screen use (1.4%). While the majority of this (64.9%) is to ‘non-broadcast’ content, likely to include a sizeable proportion to SVoD services such as Netflix, 12% is to live viewing and 23.1% is to time-shifted viewing. Other devices such as games consoles, DVD/Blu-Rays are used primarily for ‘non-broadcast’ content. The breakdown of TV screen use by device and content type is shown in Figure 8.

Figure 8: TV screen use by device and content type



Source: BARB, individuals 4+, 2017. Proportions are based on average daily minutes per person.

Audiences like the freedom of being able to watch what they want, when they want, through a smartphone or tablet

3.30 Looking across all devices (i.e. not limited to the TV set), the average individual watches 5 hours 1 minute of TV and audio-visual content per day. The majority of this (83% or 4 hours

⁴³ Note, internet dongles, such as Amazon Firestick, that plug directly into the TV set, are included under the TV set category

10 mins) is via a TV set, with the remaining 51 minutes (or 17%) from other devices, including mobiles, tablets and computers. Among younger audiences, a greater proportion than among all individuals is spent watching content on devices other than the TV set, at 34% of viewing time, although the majority (66%) is still watched on the TV set.⁴⁴

- 3.31 Ofcom research found that more than half (54%) of adults like the freedom of being able to watch when and where they want on their tablet or smartphone. This is particularly high among younger adults, as 83% of 16-24s agree with this statement. Among those who use on-demand services, 55% of adults say they use laptops/PCs to watch TV programmes or films, while 35% say they use tablets and 35% use smartphones. Younger age groups are more likely to use devices other than the TV set to view content. Almost eight in ten (77%) 16-24 year olds say they use their laptops or PCs, 64% use their smartphone and 41% use their tablet.⁴⁵

The concept of prominence

Evidence suggests that EPG positioning is likely to have a significant impact on a channel's performance

- 3.32 A number of factors can influence a channel's viewing, such as its branding, audience loyalty, the quality or appeal of its content, and cross-promotion or other marketing of the channel.⁴⁶ However, evidence also suggests that the channel's EPG slot can have a significant impact on viewing.
- 3.33 As set out above, live TV remains a central component of TV viewing: across all screens, people spend 58% of their viewing time watching live TV. Based on viewing patterns, including the strength of linear viewing, it appears the EPG remains the primary means by which most consumers find and select programmes. In addition, BARB's Lifestyle Insights questionnaire shows that using the EPG is the most common answer to "how do you find out what's on TV" for all age groups, with the exception of over 65s, who are more likely to say that they use newspaper supplements.⁴⁷
- 3.34 There is also evidence that being higher up in an EPG drives viewing: work conducted for Ofcom by FEH Media Insight in 2013 largely supported the proposition that EPG positioning affects audience performance.⁴⁸ This study assessed the viewing impact of EPG prominence by analysing actual examples of EPG reshuffles and found that of the 29 examples

⁴⁴ Source: Ofcom/BARB/BARB TV Player (census data)/Touchpoints/ComScore. See detailed methodology section of Ofcom's Media Nations 2018 report (available here https://www.ofcom.org.uk/_data/assets/pdf_file/0028/115993/media-nations-2018-methodologies-annex.pdf) of how the sources are used to construct a total estimated view of video watched.

⁴⁵ Use of on-demand and streaming services CMR research 2017 – Populus. Published in the Communications Market Report 2017, pages 12 to 25, https://www.ofcom.org.uk/_data/assets/pdf_file/0017/105074/cmr-2017-uk.pdf

⁴⁶ *Technologia*, The value and optimal management of channel position and prominence on electronic programme guides: A report for DCMS, 4 July 2012, page 6, paragraph 10.

⁴⁷ Source: BARB Lifestyle Insights Questionnaire, January 2018

⁴⁸ Available here: https://www.ofcom.org.uk/_data/assets/pdf_file/0015/57201/impact_of_epg_prominence.pdf

analysed, 25 supported an argument that EPG positioning affects audience performance, three examples were inconclusive, and one supported an argument that EPG positioning does not affect audience performance. It therefore concluded that the evidence strongly supported the view that EPG positioning is likely to have a significant impact on a channel's performance. While there have been significant changes in the market and in audience behaviour, evidence indicates that EPG positioning still has an impact on channel performance. More recent insight from FEH Media Insight, "EPG Prominence and Channel Performance – It Still Matters" found a move of 4Seven up the EPG on Virgin Media saw a large increase in its share of viewing on the platform.⁴⁹

- 3.35 Following a public auction for slot 106 on the Virgin Media platform (which was vacated when BBC Three moved online), in October 2017, E4 move from slot 144 on the Virgin Media EPG to slot 106. We have analysed viewing before and after its slot move, and found that following the move, its weekly reach increased by 68%, while its share of viewing increased by 44%.⁵⁰
- 3.36 Further to this, a study undertaken in 2012 by Technologia for DCMS⁵¹ found that without being the only influence on audiences, high EPG positions are acknowledged by both public service broadcasters and commercial broadcasters to lead to higher potential audiences. This included a report from Canis Media Ltd, a broker of EPG slot sales and transfer on the Sky platform, which valued higher slots at up to £10-20 million each.⁵²
- 3.37 We have commissioned further work by Expert Media Partners (EMP)⁵³ to examine and report on the market for EPGs, specifically the market value of EPG slots in the Entertainment, News and Kids sections on the Sky and Virgin Media platforms.⁵⁴ This found that slots higher up the EPG had a higher value – for example, slots on the first page of the Sky Entertainment section had an estimated average value of £22.5m, compared with £15.5m for the second page, and down to £1m for the tenth page.⁵⁵
- 3.38 In summary, the evidence suggests that, while there are a number of other factors which can impact on viewing to a channel, higher linear EPG positions do tend to increase viewing for channels, all else being equal.

⁴⁹ See <http://www.feh-mi.com/blog/epg-prominence-and-channel-performance-it-still-matters/>

⁵⁰ Source: BARB. For the period 29 May to 8 October 2017, E4's average weekly reach (3 minute +) on Virgin Media was 1.475m, for the period 9 October 2017 to 3 June 2018 its average weekly reach was 2.485m. In the same period, share increased from 1.34% to 1.94%

⁵¹ [Technologia](#), The value and optimal management of channel position and prominence on electronic programme guides: A report for DCMS, 4 July 2012.

⁵² [Technologia](#), page 6.

⁵³ Expert Media Partners, Report on the UK Market in EPG Positions, July 2018, https://www.ofcom.org.uk/data/assets/pdf_file/0025/116287/expert-media-partners.pdf

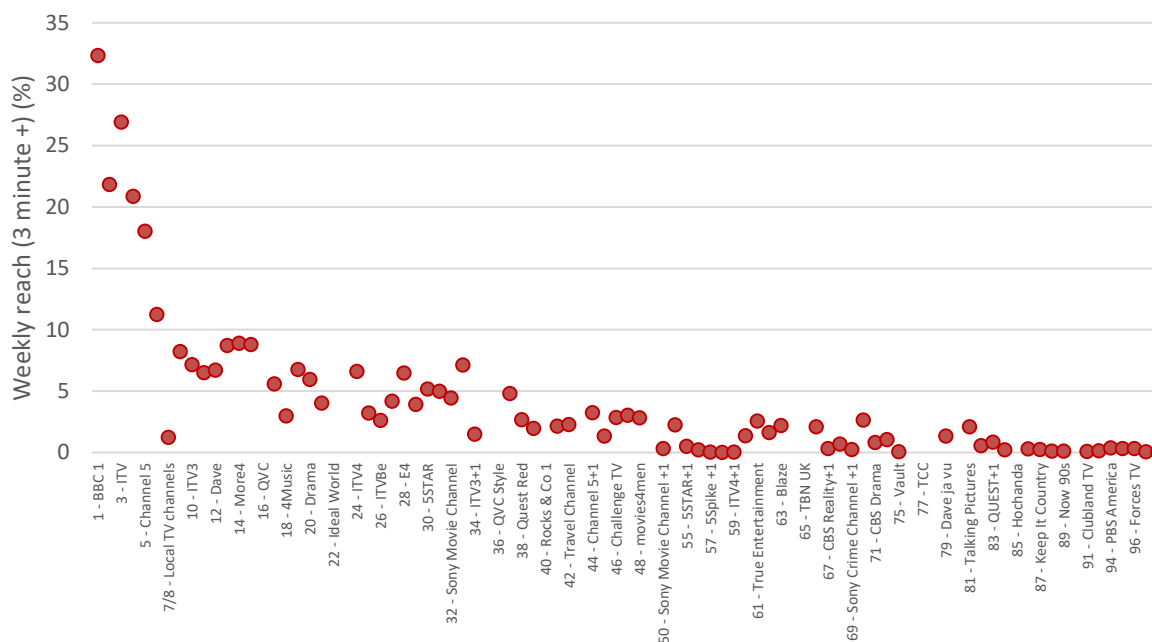
⁵⁴ EMP's estimates of the value of EPG slots are based on what they believe a slot would achieve if it were marketed under normal trading conditions, i.e. these are estimates of predicted 'sale prices', not 'asking prices'. See [EMP](#), page 10.

⁵⁵ [EMP](#), Table 1, page 12.

BARB data shows that reach generally decreases further down the EPG

3.39 We have also analysed viewing to channels on the Freeview, Sky and Virgin Media platforms by EPG position, and found that there is generally a sharp decline in reach occurring between the first and the fifth EPG slots, followed by a more gradual decline from slot 6 onwards, as shown in Figure 9 to 11.

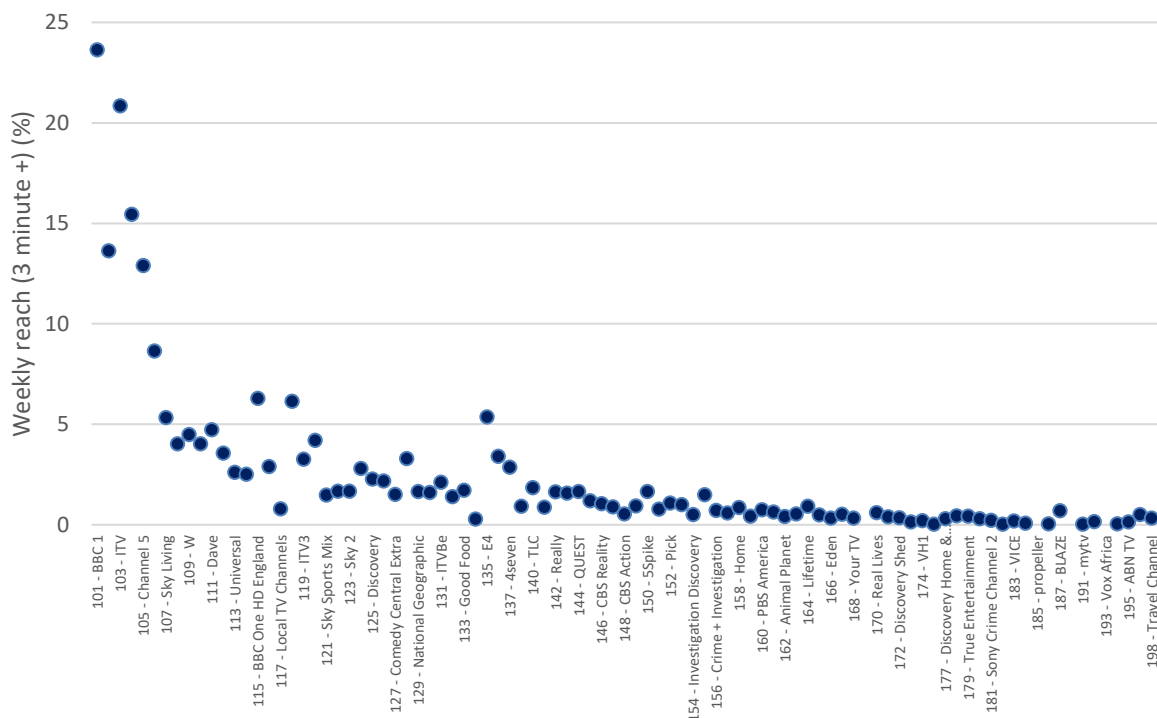
Figure 9: Freeview 3+ minute weekly reach (%) by EPG position – slot 1 to 99



Source: BARB, average 3+ minute weekly reach (%), 26/02/2018 - 03/06/2018. Channel slots are based on EPG positioning in England as at the start of June 2018. Source:

http://www.digitaluk.co.uk/channels/channel_listings (accessed 8 June 2018). Note that weekly reach figures are UK wide. Where values are blank, these channels are not reported by BARB.

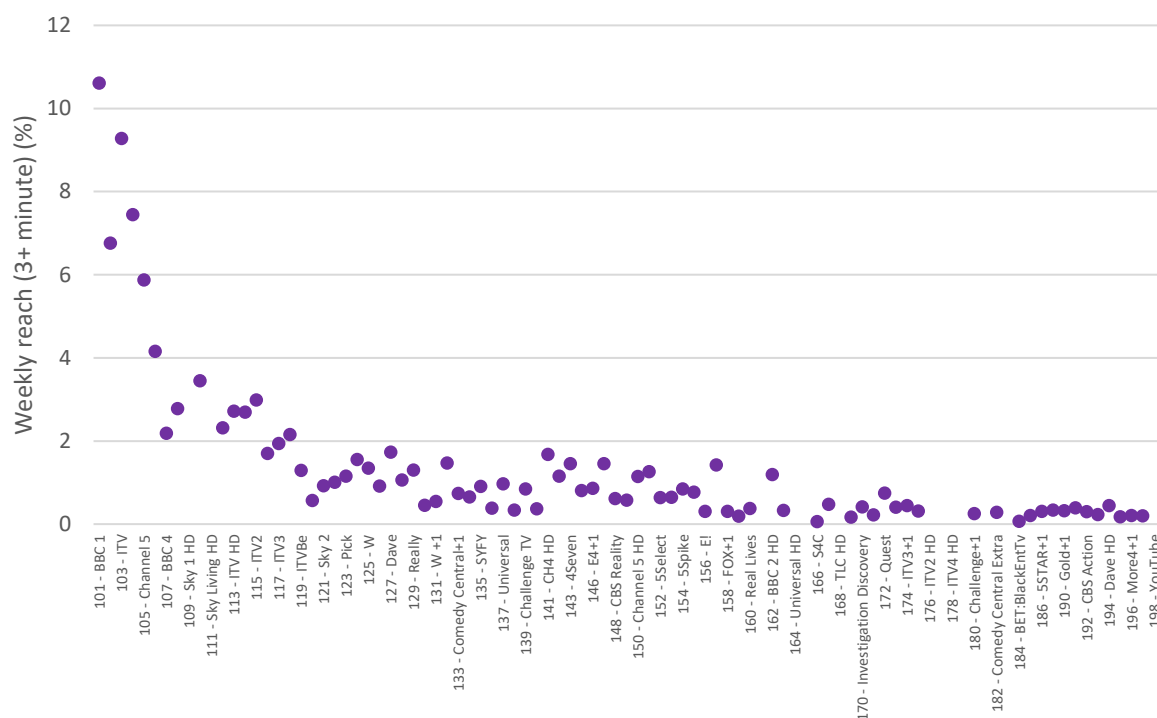
Figure 10: Sky 3+ minute weekly reach (%) by EPG position – slot 101 to 199



Source: BARB, average 3+ minute weekly reach (%), 30/04/2018 - 03/06/2018.⁵⁶ (Note that we have used a shorter time period for our analysis of the Sky platform as the EPG was reshuffled at the start of May 2018). Channel slots are based on EPG positioning in the London region as at the start of June 2018. Source: <https://www.sky.com/tv-guide/> (accessed 8 June 2018). Note that weekly reach figures are UK wide. Where values are blank, these channels are not reported by BARB.

⁵⁶ Note that this period includes one day before the EPG slot move took place on 1 May

Figure 11: Virgin Media 3+ minute weekly reach (%) by EPG position – slot 101 to 199



Source: BARB, average 3+ minute weekly reach (%), 26/02/2018 - 03/06/2018. Channel slots are based on EPG positioning as of May 2018. Source: <https://my.virginmedia.com/content/dam/virgoBrowse/docs/VirginMediaTVChannelGuide.pdf> (accessed 8 June 2018). Virgin Media’s EPG is UK wide (it does not vary by nation). Where values are blank, these channels are not reported by BARB.

Notes for figures 9 to 11: (1) BARB reports total viewing, including SD and HD viewing. In some cases, it also reports viewing to HD channels separately. However, it generally does not report viewing to SD channels separately. Therefore, all reach figures shown include SD and HD viewing, excluding where HD is specified. Where separate HD channels are not BARB reported, these figures are not included in the charts.

(2) Local TV figures are based on those which are currently BARB reported. This includes Made TV Network, STV2 and London Live. See methodology section of Ofcom’s Media Nations 2018 report⁵⁷ for the channels included.

3.40 We note that there are many other factors which may affect a channel’s performance, including, but not limited to: the quality and type of content, the target audience, and familiarity with the brand.

There isn’t the same evidence available for the effect of prominence on VoD viewing

3.41 While there is a range of data that supports the argument that a higher EPG position drives higher viewing to a channel, there isn’t the same data available to analyse the effect of

⁵⁷ Available here: https://www.ofcom.org.uk/data/assets/pdf_file/0028/115993/media-nations-2018-methodologies-annex.pdf

prominence on VoD viewing, as BARB does not currently itemise viewing to broadcaster VoD programmes, and does not report on SVoD viewing. Much of the viewing information is proprietary data held by the VoD providers. However, based on trends relating to linear EPG prominence, we can extrapolate that having content located in a more prominent position in the VoD space is also likely to drive viewing.

- 3.42 However, in all cases, the position of content is only one of a range of factors that drives users to click on a particular player or item of content. These could include the quality of the content available, the familiarity of the viewer with the content or factors associated with it (e.g. topic, actors, directors) and other advertising.

4. Availability and discoverability of PSB and local TV content

Our approach to testing the availability and discoverability of PSB and local TV content

- 4.1 The main EPG providers are: Sky, Virgin Media, Freesat, YouView, EE, BT, Digital UK (which provides the Freeview EPG) and TalkTalk.
- 4.2 As part of our duty under section 311A of the Act, we have tested the availability and discoverability of linear PSB and local TV content for at least one set top box for the following EPG providers, as set out below:
- Sky: Sky+ HD and SkyQ
 - Virgin Media: Virgin Media TiVO V6
 - Freesat: Freesat Humax
 - Digital UK: Samsung TV with integrated Freeview and Humax Freeview Play
 - EE: EE TV
 - YouView: BT YouView.⁵⁸
- 4.3 As well as providing EPGs, each of the devices listed above (with the exception of the basic Freeview device) also offers access to a range of VoD content. Pursuant to our duty under the Act, we have also tested the availability and discoverability of PSB and local TV on-demand content on each of the above listed devices.
- 4.4 For completeness, and to account for the increasing number of ways people now consume television, we have also reported on the availability of on-demand PSB and local TV content on a number of internet enabled devices, noting that the range of devices considered is by no means exhaustive. These are:
- Amazon Fire TV
 - Apple TV
 - Now TV
 - Games consoles: Microsoft Xbox and Sony Play Station.
- 4.5 In Table 1 below, we list the device models we have used in our tests.

Table 1: Device models used in testing

Device	Model
<i>EPG providers</i>	

⁵⁸ Note that we have not tested set top boxes from BT and TalkTalk: While the YouView box that we have tested is from BT, BT also holds a separate licence from YouView for its BT Vision EPG. However, BT Vision was switched off in June 2017 (existing customers can still use the box for DTT channels). TalkTalk is no longer operating its own EPG, as its channels have been integrated into the YouView EPG.

Digital UK - Freeview	Samsung UE40JU7000T
Digital UK - Freeview Play	Humax FVP-4000T
Freesat	Humax HDR 1010S
YouView (BT YouView)	Humax DTRT 1000
Virgin Media	TiVo V6
Sky – Sky+ HD	Sky DRX890 R
Sky – Sky Q	Sky Q ES140 Hardware version: 32BO27
EE TV	Netgem N8500
<i>Streaming devices</i>	
Amazon Fire TV	2 nd Generation (2015)
Apple TV	Apple TV A1625
NOW TV	NOW TV box 4500SK
Xbox	Xbox One
PlayStation	PlayStation 4

4.6 We note that the layout and positioning of content within EPG providers' user interfaces (UIs) and EPGs can vary by different box types. For example, Sky's Sky+ and Sky Q UIs are different, while Freeview's vary according to manufacturer and, the number of channels listed per EPG page can vary. However, the channel slots are set by the platform provider and as such, do not vary by box type. Note that Digital UK allocates channel slots for all DTT providers. DTT channels provided by Freeview, YouView and EE TV therefore all follow the same channel positioning.⁵⁹ Given this we have reported both on slot number and page number based on the devices tested.

Platforms' user interfaces and EPG lists

On most platforms the linear EPG is the first available option for viewers to select

4.7 Across the majority of the boxes we tested, the user interfaces (UIs) are based around a 'home screen' which provides viewers with access to the linear EPG, video on demand content and a range of other content (such as recommendations and recordings). The exception to this is the basic Freeview interface (i.e. not Freeview Play), which simply provides a linear EPG by pressing the 'guide' button on the remote control (i.e. no 'home screen' is available).

⁵⁹ YouView and EE TV also provide IP TV channels. However, we have not assessed the availability and discoverability of these, as we have focused solely on PSB and local TV channels designated pursuant to section 310 of the Act.

- 4.8 Of the boxes we tested, in most cases (Sky+, Freeview Play, Freesat, Virgin Media TiVo and BT YouView) the landing point on the home screen is a TV guide option (displayed as a tile, as part of a list, or as an icon), meaning that viewers' first and most accessible option is to navigate to the linear EPG. In the case of SkyQ, the landing point is on the "Home" menu,⁶⁰ meaning that the linear EPG is not the first option available. In this case, viewers must move one function to land on the TV guide option. For EE TV, the landing point is a 'Live TV' screen, which is focused on tiles of content, with access to the linear EPG through a tile on the bottom right of the screen. All of the home screens we tested also provide access to on-demand content; in most cases this menu is one click away.
- 4.9 Further to the home screens, access to the linear EPG is also immediately available by pressing a TV guide button on the remote control on the BT YouView, Freeview, FreeviewPlay, Freesat, EE TV and Virgin Media TiVo boxes we tested. Sky+'s guide button takes viewers to the home screen, while Sky Q does not provide a guide button.

All EPG lists rank channels in ascending order. Most boxes allow viewers to filter channels by genre

- 4.10 On the EPG lists themselves, across all of the boxes we tested, channels are ranked in ascending order by their channel slots, but the number of channels listed per EPG page varies, from six (on BT YouView) to eight (EE TV, Sky and Virgin Media).⁶¹ On Sky+, Sky Q, Freesat, BT YouView and Virgin Media TiVo, viewers can access the entire channel list, or use one of the genre filtering options to restrict the list to channels within a specified genre section. On Freeview, Freeview Play and EE TV, no genre filtering option is available, with viewers only being able to access the entire channel list.
- 4.11 On BT YouView and Sky+ the genre filtering options are visible from the all channels list. On Freesat, viewers can select the 'list' option to view the genre options. On Sky Q and Virgin Media TiVo, the genre menus are directly visible when the guide option is selected on the home page.

Availability and discoverability of PSB and local TV channels on linear EPGs

- 4.12 The results of our assessment show that the availability and discoverability of the PSB and local TV channels within the linear EPG can vary significantly by channel and also across the different platforms/set top boxes.
- 4.13 Below we present our results, where we have grouped the channels as follows:
- a) The five main PSB channels (BBC One, BBC Two, ITV/STV, Channel 4 and Channel 5). (Channel 4 results here are for England, Scotland and Northern Ireland only);
 - b) S4C and Channel 4 in Wales;

⁶⁰ The "Home" menu from Sky Q includes access to personalised recommendations, top picks and last viewed shows.

⁶¹ In some cases, the channels overlap between pages, i.e. in some cases the last channel on page one also appears as the first channel on page two. Also note that in previous testing of the SkyQ box (in November 2017) it had nine channels per page.

- c) BBC Four;
 - d) PSB news channels: BBC News and BBC Parliament
 - e) PSB children's channels: CBBC and CBeebies
 - f) Other area specific channels: BBC Alba and Local TV channels.
- 4.14 We note that it is the SD channel service of the commercial PSBs' channels that are subject to PSB obligations under broadcasting licence conditions, and on that basis, it is the SD service which is entitled to prominence on the linear EPG (although all BBC channels are covered), meaning that ITV HD, Channel 4 HD and Channel 5 HD are not entitled to prominence under the Act. However, for practical and consumer reasons, where the PSB negotiates this with the platform provider, we have taken the view that prominence requirements to be met if the EPG gave prominence to a HD version of a public service channel rather than the SD version, where the content is simulcast. Given users are most likely to view the first instance of a channel, in this exercise we have recorded the first instance of the relevant channel, regardless of whether it is broadcast in SD or HD.
- 4.15 As noted at paragraph 4.6, channel slots are allocated by platform providers, and do not vary by box type⁶². Where we present channel slots we have presented these for the platforms: DTT, Freesat, Sky and Virgin Media.
- 4.16 Note that channels available and their positioning can vary by nation or region. All platforms, with the exception of Virgin Media, provide regional or national variations to their EPGs. For example (as we consider below) BBC Alba is at slot 141 on Sky in Scotland, and at slot 169 on Sky in the rest of the UK. The Virgin Media EPG is UK wide, so its channel slots are consistent throughout the UK. Where we provide page numbers that channels appear on in the EPG lists, these are indicative only and based on testing undertaken in London in May to June 2018.
- 4.17 Throughout these results, we first consider the channel slot of the PSB and local TV channels on the main platforms. Throughout, we have tested channel slots, and verified these on platform providers websites⁶³, including where channel slots vary by nation/region. We then consider the indicative page number that these channels would be found on within the EPGs of each of the box types that we tested.

The main five PSB channels are located in slots 1 to 5 or 101 to 105

- 4.18 Across all platforms (outside of Wales) these services are all located at channels 1 to 5 or, where the EPG numbering begins at 100 or 101, 101 to 105 and appear on the first page of the EPG all channels lists. They appear in the same order: BBC One, BBC Two, ITV/STV, Channel 4⁶⁴ and Channel 5 across all of the boxes we tested. The channel slots of the five main PSB channels are shown below:

⁶² Digital UK allocates channel slots for all DTT providers

⁶³ Digital UK for DTT channels

⁶⁴ Channel 4 position for England, Scotland and Northern Ireland only. S4C and Channel 4 in Wales is covered below.

Figure 12: Channel slots of five main PSB channels by platform

	BBC One	BBC Two	ITV/STV	Channel 4*	Channel 5
DTT	1	2	3	4	5
Freesat	101	102	103	104	105
Sky	101	102	103	104	105
Virgin Media	101	102	103	104	105

Source: Ofcom research. Data collected in May to June 2018

Note: *Channel 4 slot for England, Scotland and Northern Ireland

In Wales, S4C is at slot 4 or 104 on all platforms except for Virgin Media. Conversely, in Wales, Channel 4 is further down the EPG on all platforms except for Virgin Media where it is at slot 104

- 4.19 On all platforms except for Virgin Media, S4C in Wales is at slot 4 or 104. For Virgin Media it is at slot 166 across the whole of the UK. This means that on all platforms apart from Virgin Media, S4C in Wales can be found on the first page of the all channels EPG list. On the Virgin Media TiVO box that we tested, it is found on the tenth page.
- 4.20 In Wales, Channel 4 is located at channel 7 on DTT, channel 117 on Sky and channel 120 on Freesat. On Virgin Media it retains its slot at channel 104, as shown in Figure 13, as Virgin Media does not regionalise its EPG. Across the boxes we tested with regionalised EPGs, Channel 4 would be located within at least the first four pages⁶⁵ of the all channels EPG list, as shown in Figure 14.

Figure 13: Channel slots of S4C and Channel 4 in Wales by platform

	S4C	Channel 4
DTT	4	7
Freesat	104	120
Sky	104	117
Virgin Media	166	104

Source: Ofcom research. Data collected in May to June 2018

Figure 14: Page number of S4C and Channel 4 in Wales on all channels lists by device⁶⁶

	S4C	Channel 4
BT YouView	Page 1	Page 2

⁶⁵ Note that page numbers are estimated based on testing undertaken in London

⁶⁶ Note that throughout this report, page numbers are based on the specific devices we have tested. Page numbers will vary by manufacturer and box type due to differing number of channels listed per page, and will vary in different regions, if different channels are available.

Freeview	Page 1	Page 1
Freeview Play	Page 1	Page 1
EE TV	Page 1	Page 1
Freesat	Page 1	Page 4
Sky Q	Page 1	Page 3
Sky+	Page 1	Page 3
Virgin Media TiVO V6	Page 10	Page 1

Source: Ofcom research. Data collected in May to June 2018. Note these page numbers are estimated based on channel slots and positioning tested in London.

BBC Four is generally in a fairly high position on the EPG

4.21 On DTT BBC Four is on channel 9, on Freesat and Virgin Media it is on channel 107 and on Sky it is at 116 (see Figure 15). Across the majority of the boxes we tested it is located either on the first or second page of the all channel listing. On SkyQ it is on the third page, as shown in Figure 16.

Figure 15: Channel slots of BBC Four by platform

Type	BBC Four
DTT	9
Freesat	107
Sky	116
Virgin Media	107

Source: Ofcom research. Data collected in May to June 2018.

Figure 16: Page number of BBC Four on all channels lists by device

Type	BBC Four
BT YouView	Page 2
Freeview	Page 2
Freeview Play	Page 2
EE TV	Page 1/2*
Freesat	Page 1
Sky Q	Page 3
Sky+	Page 2

Virgin Media TiVO V6

Page 1

Source: Ofcom research. Data collected in May to June 2018. Note that these page numbers are estimated based on channel slots and positioning tested in London.

Note: *Slot 9 on EE TV would only be on page 1 if one of slot 7 or 8 were not in use. This varies in different parts of the UK where different channels are available.

The BBC’s children’s and news channels are further down the all channels EPG lists as they sit within their specific genre groupings

Children’s

4.22 On DTT, CBBC and CBeebies are located at channels 201 and 202 respectively. On Virgin Media they are at channels 701 and 702, on Freesat they are at 600 and 601 and on Sky they are at 613 and 614 (see(see Figure 18).

4.23 Figure 17).

4.24 On Freesat, Virgin Media TiVo and BT YouView both children’s PSB channels are located on the first page of the children’s genre pages, while on Sky+ and Sky Q they are on the second page. On Freeview, Freeview Play and EE TV no genre filters are available, so when going through the EPG, viewers must navigate via the all channels list, although the channels located are at the top of the genre grouping (which starts at 201). Of the boxes we tested on Freeview the children’s PSB channels were found on the 13th/14th page, on Freeview Play they were on the 15th page and on EE TV they were on the tenth page (see Figure 18).

Figure 17: Channel slots of PSB children’s channels by platform

Type	CBBC	CBeebies
DTT	201	202
Freesat	600	601
Sky	613	614
Virgin Media	701	702

Source: Ofcom research. Data collected in May to June 2018

Figure 18: Page number of PSB children’s channels via children’s genre EPG menus by device*

Type	CBBC	CBeebies
BT YouView	Page 1	Page 1
Freeview	Page 13	Page 14
Freeview Play	Page 15	Page 15
EE TV	Page 10	Page 10

Freesat	Page 1	Page 1
Sky Q	Page 2	Page 2
Sky+	Page 2	Page 2
Virgin Media TiVo V6	Page 1	Page 1

Source: Ofcom research. Data collected in May to June 2018. Note that these page numbers are estimated based on channel slots and positioning tested in London.

*As noted above, genre filtering was not available on the Freeview, Freeview Play and EE TV devices we tested, so the page numbers listed for these devices is via the all channels menu.

News

- 4.25 On DTT, BBC News and BBC Parliament are located at channels 231 and 232 respectively (BBC News is also at 107 in HD). On Freesat they are at channels 200 and 201, while on Virgin Media they are at 601 and 605, and on Sky they are at channels 503 and 504. See Figure 19.
- 4.26 Of the boxes where genre filtering is available, BBC News is at the top of the news genre menu in all cases except for Sky+ and Sky Q, where it is third on the list (although still on the first page). Similarly, where genre filtering is available, BBC Parliament is consistently found on the first page of the news genre list.
- 4.27 For Freeview, Freeview Play and EE TV (all of which provide DTT channels), where genre filtering is not available, the channels are found between the 11th and 16th pages of the all channels list. However, these channels do occupy the top two slots in the DTT platform's news genre grouping (which starts at 231). The channel slots and page numbers on the genre EPGs are shown below.

Figure 19: Channel slots of PSB news channels by platform

Type	BBC News	BBC Parliament
DTT	107/231*	232
Freesat	200	201
Sky	503	504
Virgin Media	601	605

Source: Ofcom research. Data collected in May to June 2018

Notes: *On Freeview and YouView, the BBC News HD channel is at slot 107 and BBC News SD is at slot 231

Figure 20: Page number of PSB news channels via news EPG menu by device*

Type	BBC News	BBC Parliament
BT YouView	Page 1	Page 1

Freeview	Page 15**	Page 15
Freeview Play	Page 16**	Page 16
EE TV	Page 11***	Page 11
Freesat	Page 1	Page 1
Sky Q	Page 1	Page 1
Sky+	Page 1	Page 1
Virgin Media TiVo V6	Page 1	Page 1

Source: Ofcom research. Data collected in May to June 2018. Note that these page numbers are estimated based on channel slots and positioning tested in London.

*As noted above, genre filtering was not available on the Freeview, Freeview Play and EE TV devices we tested, so the page numbers listed for these devices is via the all channels menu. **The SD version (channel 231, at the top of the news genre grouping) was on page 15 on Freeview and 16 on Freeview Play. The HD version (channel 107) was on page 13 on Freeview and page 14 on Freeview Play. ***Note, the HD version (channel 107) was not available on the EE TV box we tested, at time of testing, most likely due to lack of reception.

BBC Alba and the local TV channels' positions in the EPG vary considerably by platform

- 4.28 BBC Alba in Scotland is on channel 7 on DTT, but it is not available on DTT outside of Scotland. It is available across the UK on Freesat, Sky and Virgin Media. On Freesat and Virgin Media it is at channels 109 and 161 respectively, across the UK. On Sky it is at channel 141 in Scotland (and 169 in the rest of the UK). Its location on the platforms' EPG pages varies considerably, as shown in Figure 21.
- 4.29 Local TV channels on DTT are found on either channel 7 or 8 (depending on which part of the country viewers are in). On Sky they are found on channel 117 (in England, Scotland and Northern Ireland) while in Wales it is at channel 134. On Virgin Media they are at channel 159. See Figure 21.⁶⁷ This means that for the boxes we tested, the page number of local TV channels on the all channels list varies from the page 1 or 2 (on EE TV, Freeview, Freeview Play and BT YouView) to page 3 on Sky+ and Sky Q, and page 9 on Virgin Media (see Figure 22).

Figure 21: Channel slots of BBC Alba and Local TV by platform

Type	BBC Alba*	Local TV
DTT	7	7/8***
Freesat	109	n/a
Sky	141**	117****

⁶⁷ Note that Local TV is not available in all parts of the UK, and not all local TV channels are carried on Sky and Virgin Media. Note that local TV channels are not available on Freesat.

Virgin Media	161	159
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Source: Ofcom research. Data collected in May to June 2018.

Notes: *BBC Alba on DTT is available in Scotland only. Its channel slots on Freesat and Virgin Media are UK wide. **Sky's channel slot for BBC Alba is 141 in Scotland, and 169 for the rest of the UK. ***The channel slots of local TV channels on DTT varies in different parts of the country. In England, Local TV channels are located at slot 7 or 8; in Wales they're located at channel 8 (Channel 4 is at slot 7); in Scotland they're located at slot 8 (BBC Alba is at channel 7). In Northern Ireland, NVTV Belfast is at slot 7. ****Local TV position for England, Scotland and Northern Ireland. It is at slot 134 in Wales

Figure 22: Page number of BBC Alba and Local TV on all channels lists by device

Type	BBC Alba*	Local TV**
BT YouView	Page 2	Page 2
Freeview	Page 1	Page 1/2***
Freeview Play	Page 1	Page 1/2***
EE TV	Page 1	Page 1
Freesat	Page 2	n/a
Sky Q	Page 6	Page 3
Sky+	Page 6	Page 3****
Virgin Media TiVO V6	Page 9	Page 9

Source: Ofcom research. Data collected in May to June 2018. Note these page numbers are estimated based on channel slots and positioning tested in London.

Notes: *Page numbers shown for BBC Alba are for their position in Scotland. **As noted above, local TV is at slot 117 in England, Scotland and Northern Ireland. In Wales it is at slot 134. We estimate that this would be at page 5 on both the Sky+ and SkyQ EPGs. ***Page numbering can vary depending on which slots are filled – e.g. slot 8 on DTT would only fall on page 1 if slot 7 were not in use, which varies in different parts of the UK, depending on which channels are available. ****On Sky+, local TV listings can also be accessed by pressing the yellow button on the remote control from the all channels list, which takes viewers directly to a local TV list.

Availability and discoverability of PSB and local TV VoD content on connected devices

- 4.30 In this section, we describe the discoverability of on-demand PSB and local TV content accessible through internet enabled devices connected to television sets.⁶⁸
- 4.31 We have not, however, reported on the availability and discoverability of PSB VoD on smart TVs⁶⁹ because there is a broad range of smart TVs available in the market and

⁶⁸ This includes internet dongles or streamers (e.g. Apple TV, Amazon Firestick) or an internet enabled games console.

⁶⁹ A smart TV is a stand-alone television set with inbuilt internet functionality. Users connect to the internet via a broadband router or modem.

manufacturers have significant control over the way software applications (including VoD players) are presented in their menus at any given time. Furthermore, the VoD interfaces vary between models from the same manufacturer. We consider that reporting on a particular manufacturer or model may not be entirely reflective of the presentation of VoD apps, particularly PSB VoD players, on smart TVs. However, we note that most smart TVs support the main PSB players (BBC iPlayer, ITV Hub, All 4 and My5). We consider that the smart TV market is too diverse and complex to have meaningfully reviewed it in this report and, further to this, this is an area subject to technical and commercial complexity between manufacturers and player providers.

- 4.32 We have also not included connected devices such as smart phones, tablets and desktops in our report due to the huge range of devices and manufacturers. However, the PSB players⁷⁰ are generally available on these as they can be downloaded on devices running on both iOS (Apple) and Android operating systems.
- 4.33 In Figure 23 below, we summarise the availability of features which describe the availability and discoverability of PSB and local TV VoD content across those different platforms within the scope of our report. These features are described in more details in the sections that follow.

⁷⁰ BBC iPlayer, ITV Hub, All 4, My5, STV and S4C (also available through BBC iPlayer)

Figure 23: Summary of features supported by the main TV platforms

Feature	FreeviewPlay	Freesat	YouView	Virgin Media TV	Sky + HD	Sky Q	EE TV
Location of On Demand ⁷¹ menu from the home page	Next to TV Guide (1 tab away)					3 tabs from "Home" menu tab	Next to TV Guide (1 tab away)
Location of the PSB players	<ul style="list-style-type: none"> Presented upfront after highlighting and prior to selecting the on-demand option Available in the on-demand/Players menu 			<ul style="list-style-type: none"> "Channels" sub-menu: 3 tabs within "Catch-Up" menu 	<ul style="list-style-type: none"> "Catch-Up" menu 		<ul style="list-style-type: none"> "On Demand" menu
Visibility of PSB Player logo	Yes					No. Text-based description only	Yes
Location of the main PSB Players in the On-Demand Players Page ⁷²	Top row (where available)					PSB players are listed below the "Featured ⁷³ " tab.	Top row (where available)
Support for Backward EPG	Yes				No		
Location of recommendations	Home page and Freeview Explore App	Showcase menu	<ul style="list-style-type: none"> Not available 	<ul style="list-style-type: none"> Home Page⁷⁴ 	<ul style="list-style-type: none"> Home Page 	<ul style="list-style-type: none"> "Home" Menu 	<ul style="list-style-type: none"> Not available

⁷¹ Platforms vary in their description of menu item (On demand/Catch-Up) where PSB Players are located

⁷² The order of presentation is consistent: BBC iPlayer, ITV Hub, All 4 and My5 respectively.

⁷³ The Featured tab menu lists content selected by Sky.

⁷⁴ Four recommendations including content exclusive to Virgin Media

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	(same content)			• Catch-up menu ⁷⁵			
Are recommendations presented while navigating to PSB Apps?	No	Yes ⁷⁶	Not Applicable	Yes ⁷⁷	Yes ⁷⁸	Yes ⁷⁹	Not Applicable

Source: Ofcom research. Data collected in May 2018.

⁷⁵ Within the Catch-up menu, there are several sub-menus with recommendations: “Trending sub-menu”, “Last 7 Days”, “All” and “Genre”

⁷⁶ Maximum of two presented with catch-up players

⁷⁷ Graphical recommendation tabs remain on the top left corner of the Home Page through the navigation process. No other recommendations/graphics are presented during the process unless any of the recommendations menu items (“Trending”, “Last 7 days”, etc.) are selected. Larger portion of screen is dedicated to the navigation process.

⁷⁸ “Top Picks” recommendation tabs remain in the Home Page until the catch-up menu tab is selected

⁷⁹ Graphical recommendations occupy significant portion of the Home Page and remain on the screen while navigating to PSB Players. A new set of recommendations (retained if the “Featured” tab is selected) appear upfront when the “Catch-Up” menu is selected. A PSB Player must be selected before the recommendations are cleared.

The main PSB VoD players⁸⁰ are generally available on the main EPG service provider platforms while the smaller PSB players are not available on the main pay TV platforms. There are no known Local TV VoD players.

- 4.34 The main PSB VoD players are available on the main EPG service provider platforms except for EE TV which supports only the BBC iPlayer and My5 Player and Freesat, which doesn't have All 4. They are also available on a broad range of internet media streamers such as Amazon Fire TV, Apple TV and game consoles such as the Microsoft Xbox and Sony PlayStation. Figure 24 illustrates the availability of PSB on-demand players on the devices we have looked at.
- 4.35 We note that, in contrast to linear channels, VoD players' availability on platforms is subject to commercial agreements.
- 4.36 STV player is not available on Virgin Media, Sky+ or Sky Q. In Scotland, consumers on these platforms are therefore unable to access STV's on-demand content since it is only available through the STV on-demand player in Scotland.
- 4.37 Although S4C's on-demand content can be accessed through the BBC's iPlayer, its own on-demand Player, S4C player, is only available on YouView.
- 4.38 There are no local TV channels with on-demand players/apps⁸¹.

Figure 24: Availability of PSB VoD players across different devices

Device	BBC iPlayer	ITV Hub	All 4	My5	STV Player	S4C Player
Freeview Play	✓	✓	✓	✓	✓ ⁸²	✗
Freesat	✓	✓	✗	✓	✓	✗
YouView	✓	✓	✓	✓	✓	✓
Virgin Media	✓	✓	✓	✓	✗	✗
Sky Q	✓	✓	✓	✓	✗	✗
Sky+ HD	✓	✓	✓	✓	✗	✗
EE TV	✓	✗	✗	✓	✗	✗
Amazon Fire TV	✓	✓	✓	✓	✓	✓
Apple TV	✓	✓	✗	✓	✗	✓
Now TV	✓	✓	✓	✓	✓	✗

⁸⁰ By the main PSB VoD players we mean BBC iPlayer, ITV Hub, All 4 and My5. We also note that the main PSB VoD players may also provide content from their smaller PSB channels too, so they are not equivalent to the main five PSB channels. The commercial PSB VoD players also provide content from their portfolio channels, which are not PSB channels, such as ITV2, E4 or 5star.

⁸¹ Some local TV stations, for example NVTV (Belfast) and Notts TV (Nottingham) have catch-up content available on their websites.

⁸² On FreeviewPlay, STV player is only available to those who can receive STV channels

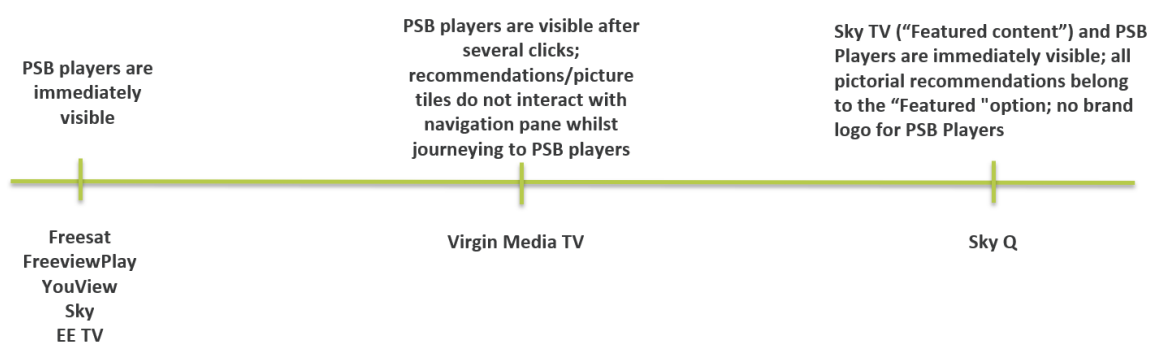
Xbox Consoles⁸³	✓	✓	✓	✓	✓ ⁸⁴	✗
Play Station Consoles⁸⁵	✓	✗	✓	✓	✗	✗

Source: Ofcom research, data collected in May 2018

Once in the VoD space, the PSB players are easily discoverable on the main EPG service providers’ TV platforms

4.39 The journey time from the home page to PSB players varied across different platforms, for the devices we tested from the main EPG providers. However, the main PSB VoD players, where available, are located in the top row of the VoD player grid and are therefore easy to locate in the VoD space.

Figure 25: Discoverability of PSB players after selecting the on-demand menu option across different platforms



Source: Ofcom research, data collected in May 2018

4.40 Figure 25 describes the discoverability of PSB players on a range of platforms. On FreeviewPlay, Freesat and YouView, the PSB on-demand players are presented upfront (as a part of a sub-grid of the on-demand players supported by the platform) after highlighting and prior to selecting the on-demand option. The main PSB players occupy the top positions in this sub-grid. When the on-demand menu option is selected, the PSB players retain their lead positions in the grid of players. FreeviewPlay allows users to select PSB players from its home page.

4.41 On Virgin Media TV, a few more clicks are required from the catch-up home page before PSB players are located. Within the VoD players grid, the main PSB VoD players occupy the top row.

4.42 On EE TV, once viewers are in the VoD space, the PSB players that are available (BBC iPlayer and My5) are immediately visible and are listed on the top row. The ITV Hub and All 4 are not available.

⁸³ We have assumed that a game console supports a PSB VoD player provided at least one of its generation does so.

⁸⁴ Available on Xbox 360

⁸⁵ We have assumed that a game console supports a PSB VoD player provided at least one of its generation does so.

- 4.43 On Sky+ HD, the main PSB players are listed in the top row of the VoD players grid in the catch-up TV home page. Sky Q is different in its presentation of VoD players compared to other platforms. It uses a text-based description of the VoD players without the brand logos. The main PSB players are listed just below the link to Sky's "Featured" content.
- 4.44 On internet streamers, in some cases, the main PSB players are pre-loaded on to devices, whereas on others, consumers can download them. In addition, on some devices it is possible to re-order the apps on menus, and for some, the ordering depends on the apps used most recently.

Recommendations are now common across all platforms

- 4.45 Most EPG providers' set-top-boxes provide users with recommendations, as do the over-the-top (OTT) platforms such as Amazon Prime and Netflix. The platforms vary in the amount of on-screen recommendations they provide. While some have dedicated menu items for recommendations such as FreeviewPlay's Freeview Explore and Freesat's Showcase, others present varying amounts of on-screen recommendations (in terms of volume and screen area occupied) as users navigate through the menu items whilst making a choice on what programme to watch.
- 4.46 The recommendations are usually picture-tiles describing the programme with the larger-sized tiles reserved for programmes that platform operators seek to promote above others. Some platforms also reserve some channel slots for previews, movie trailers and sports/general highlights that they wish to promote, for example, Virgin Media's preview channel and BT TV's BT Sport Showcase. Virgin Media TV's recommendation channel is the first in its EPG list (at slot 100).
- 4.47 We found that platforms generally provide recommendations based on content they seek to promote as well as consumer's viewing habits. When based on the former, the recommendations are available to all consumers while in the case of the latter they tend to be personalised. Some examples of recommendation menu items we found across the platforms are "Freeview Explore" (FreeviewPlay), "Showcase" (Freesat), "Featured and Top Picks" (Sky and Sky Q), "Virgin Exclusives" (Virgin Media TV) and "Recommended for you" (BBC iPlayer). Some platforms also provided recommendations based on popularity or overall consumption for example "Trending" recommendations menu on Virgin Media.

Although PSB content is generally available on most of the main EPG providers' recommendation menus, the free TV platforms tended to have more overall PSB recommendations compared with the pay tv platforms

- 4.48 Although most of the main EPG providers include PSB content in their recommendations, we found that the amount of recommendations varied across the platforms.
- 4.49 The amount tended to correspond with the visibility of the PSB players as described in Figure 25 above. Based on a few snap shots of the PSB recommendations available across the platforms, we found that the free TV platforms (FreeviewPlay and Freesat) had more overall PSB content listed in their recommendation menus. The pay-TV (Virgin Media, Sky and NOW TV) platforms had less. In some cases, the availability of PSB within

recommendations is dependent on the existence of commercial deals between PSBs and the platform providers.

5. Next steps

This report has fed into Ofcom's consultation on the Code

- 5.1 The findings in this report have informed proposed revisions to the Code, as set out in our consultation. We are also seeking views on principles and ideas that could underpin any future changes that Parliament could make to the statutory regime, to maintain the prominence of PSB content and services. Any changes to the prominence regime would require legislative change, so stakeholder responses to issues raised with regards to the future of the regime will inform our recommendations to Government. The consultation is open until 5 October 2018 and can be found here <https://www.ofcom.org.uk/consultations-and-statements/category-1/epg-code-prominence-regime>.
- 5.2 As part of our duty under the DEA, we will update this report from time to time.