
EPG Accessibility

Improvements for people with visual impairments

STATEMENT

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About this document

This document sets out Ofcom's decision to amend its Code on Electronic Programme Guides (EPGs), which (among other things) sets out the practices EPG providers must follow to provide the features and information needed to enable EPGs to be used by people with disabilities affecting their sight or hearing or both.

Following a public consultation, we have decided to set a practice for EPG providers to use reasonable endeavours to introduce certain accessibility features, where practicable.

As with most other published Ofcom documents, this consultation is available on Ofcom's website in a version (Portable Document Format) which is compatible with most screen-readers.

We will consider all reasonable requests for publication of this statement in alternative formats or other languages. If you would like to make a request, you can call our Advisory Team from Monday to Friday between 09:00 and 17:00 on 020 7981 3040 or 0300 123 3333. If you are deaf or speech-impaired, you can use our textphone numbers, which are 020 7981 3043 or 0300 123 2024.

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1. Summary

Introduction

What is the problem?

- 1.1 People with visual impairments find it difficult to navigate the Electronic Programme Guides ('EPGs') which list and give access to television programmes. In particular, it can be difficult to find programmes available with 'audio description.'

The current EPG Code

- 1.2 The accessibility of EPGs depends on two factors: the data broadcast by EPG providers to TV receivers (e.g. smart TV sets or set-top-boxes), and the hardware/software of those TV receivers.
- 1.3 EPG providers (currently Sky, Virgin, YouView, Freesat, Digital UK for Freeview, BT, EE and TalkTalk) are licensed by Ofcom and are required to follow the practices set out in Ofcom's Code on EPGs (the 'EPG Code') in the provision of EPGs.

What are we changing?

Consultation responses

- 1.4 In 2017/18 we consulted on proposals to improve the accessibility of EPGs. Consultation responses broadly fell into two categories:
 - a) individuals and consumer groups argued for mandating accessibility features;
 - b) industry organisations, including EPG licensees, raised concerns that any kind of regulatory mandating of additional accessibility features could have a negative impact on innovation as they felt the open market was best placed to further these developments.

Ofcom's decisions

- 1.5 Following careful consideration of the consultation responses, we have amended the EPG Code so that visually impaired¹ people can benefit from additional accessibility features. This means that in future, they will be able to use EPGs in the same way that people without such disabilities use them.
- 1.6 The amendments to the EPG Code sets a new practice for EPG providers to use reasonable endeavours to secure, so far as practicable, that their EPGs include facilities for users to do

¹ In this document, we use the term 'visually impaired' to refer both to those with partial sight loss, and those who are completely blind.

all or as many as possible of the following, or to introduce accessibility features that would be equally effective:

- a) render text needed for EPG navigation and the provision of information on channels and programmes included in the EPG as speech (**'text-to-speech'** functionality or **'TTS'**);
- b) highlight or list separately programmes with audio description, and with signing (**'filtering or highlighting'** functionality);
- c) adjust the display of EPG information so that it can be magnified, or the text enlarged (**'magnification'** functionality); and
- d) switch between the default and 'high contrast' displays (**'high contrast displays'**).

1.7 We are allowing providers to introduce 'equally effective' features, to allow for the possibility of current and future innovations in technology and user preferences. We believe that providers should be able to use innovative methods to increase accessibility. However, any such alternative features must be genuinely as effective for consumers as those specified above.

1.8 The changes to the EPG Code that we have decided to make will take effect from today. However, the practice to provide the new accessibility features (or to introduce equally effective measures) will apply to EPGs made available, via all consumer TV receivers, beginning development after **27 July 2018** (i.e. one month from publication of this statement), and any subsequent models.

1.9 The proposed changes will be supported by strengthened reporting practices. We will require EPG providers to submit an annual report on the accessibility of their EPGs and their future plans. We will use this report to monitor progress and to give consumers comprehensive information on the accessibility of available EPGs. The first annual report under the revised rules will be due by **30 November 2018**.

1.10 Our amendments take into consideration industry's ability to develop further innovative ways of providing accessibility features outside those highlighted above. The aim is to provide the flexibility for these developments to take place and we will require EPG providers to include these developments within their annual reports to us.

2. Background

Electronic Programme Guides ('EPGs')

- 2.1 EPGs consist of the listing or promotion (or both) of television programmes together with a facility for obtaining access to those programmes.
- 2.2 Access to EPGs and to the programmes promoted or listed in EPGs is dependent on the data made available by EPG providers, which is transmitted as a broadcast signal, as well as the hardware and software of TV receivers (TV sets and set-top boxes).

The EPG Code

- 2.3 EPG providers (currently Sky, Virgin, YouView, Freesat, Digital UK for Freeview, BT, EE and TalkTalk) are licensed by Ofcom and are required to ensure that the practices set out in Ofcom's Code on EPGs (the '**EPG Code**') are followed in the provision of EPGs.
- 2.4 The EPG Code was adopted in 2004 and amended in March 2005. Paragraphs 5 to 13 of the EPG Code concern the practices that EPG providers should follow in relation to assistance to people with hearing and/or visual disabilities. Specifically:
 - a) paragraph 6 sets out general principles with which EPG providers must comply. Amongst these is a required practice to make such adjustments to their EPGs as are practicable to secure that they can be used by people with disabilities affecting their sight or hearing for all the same purposes as they are used by other people (paragraph 6(a));
 - b) paragraph 7 says that 'Ofcom expects EPG providers to consult disability groups about the way they meet their obligations under the code';
 - c) paragraph 8 says that 'much of the functionality of EPGs is dependent upon set top box hardware and software, as well as the data made available by broadcasters', but makes clear that 'Ofcom expects the needs of people with disabilities affecting their sight or hearing to be an integral part of planning for the future development of EPGs';
 - d) paragraph 9 of the EPG Code sets out a practice for EPG providers to produce annual statements of the steps they have taken and plan to take to facilitate the use of their EPGs by disabled people;
 - e) paragraph 10 of the EPG Code reminds EPG providers of their obligations under the Disability Discrimination Act 1995, now replaced by the Equality Act 2010, to make reasonable adjustments in the provision of facilities and the delivery of services so as to make these accessible to disabled people;
 - f) paragraph 11 sets out a practice for EPG providers to ensure that programme information denotes whether access services are provided, using standard acronyms: S (subtitling), SL (sign language) and AD (audio description);

- g) paragraph 12 sets out a practice for EPG providers to provide information for people with disabilities about assistance in relation to programmes (e.g. how to use the EPG); and
 - h) paragraph 13 of the EPG Code sets out a practice for EPG providers to work with broadcasters, platform providers and disability groups to publicise the information and facilities available on EPGs to assist disabled people.
- 2.5 In Annex A1, we set out in more detail the relevant legal framework (including our approach to assessing the impact of our proposals), which we have taken into account in making our proposals and final decisions. This annex should be treated as part of this document.

People with visual impairments

- 2.6 It was estimated in 2015 that 2 million people had partial sight or blindness, with one in five people aged 75 and older living with sight loss. The total of those with partial sight and blindness in the UK is expected to grow to over 2,250,000 by 2020, and to nearly 4 million by 2050.²
- 2.7 Much of this growth is expected to arise from the ageing of the population, leading to an increase in the number of people with age-related macular degeneration and cataracts. Other main causes of visual impairment include diabetes retinopathy, glaucoma and refractive error.
- 2.8 Many programmes can be understood and enjoyed without perfect vision. Some television programmes (e.g. news, documentaries) rely heavily on speech, and some others are accompanied by audio description. Most people with visual impairments will have watched television regularly before their sight was impaired and will not want to give up a familiar and enjoyable activity. Indeed, as many are retired, they are likely to have more leisure time, and may have less money and physical ability to engage in other activities. Television also helps people to cope with social isolation, to which older people are prone.
- 2.9 A survey commissioned by Ofcom in 2006 found that blind and visually-impaired people watched more television than those without sight impairments. At a time when, on average, UK residents were watching around 3.46 hours a day, those with visual impairments were watching 3.8 hours of television a day³.
- 2.10 The impact of visual impairments will also vary according to the personal circumstances of each person. Some people who find using a conventional EPG difficult or impossible may be able to make use of TV guide apps on text to speech - enabled mobile devices (e.g. tablets and smartphones).

² Source: [RNIB statistics](#).

³ [Provision of access services: research study conducted for Ofcom, Ofcom, March 2006](#).

- 2.11 However, as described in our 2015 report on disabled consumers' use of communications services⁴, while visually impaired people have increasing access to smartphones (48%), this is still significantly lower than the levels of access for non-disabled people (66%). Visually impaired consumers are more likely to be older than non-disabled consumers and can face additional barriers to using mobile devices to access television programming. These may include a lack of money or reluctance to buy mobile devices, a lack of confidence in their ability to use these devices, or the obstacles that often accompany ageing, such as a decline in visual and auditory perception, attention span, memory, motor functions and touch sensitivity.
- 2.12 In the 2017/2018 consultation, we discussed the main accessibility features which are currently available.⁵ In summary, the features most commonly provided are high contrast displays and magnification options. Where EPGs are accessed via Smart TVs, some models enable TTS functionality. For the majority of EPG providers, the only TTS functionality provided is via companion apps. Since 2015, two EPG providers have introduced voice activation using existing voice recognition systems (e.g. Amazon Echo).

2017/18 consultation on EPG Accessibility

- 2.13 In December 2017, we launched a consultation (the '**2017/18 consultation**'⁶) to seek the views of interested parties on our proposed amendments to the EPG Code.
- 2.14 We received 25 responses to the 2017/18 consultation: eleven were from organisations and fourteen from individuals. We have considered all responses in reaching our conclusions and have published non-confidential responses on our website.⁷
- 2.15 In section 4 of this document we summarise the comments made by respondents, assess the arguments presented and outline the conclusions we have reached.

Ofcom's previous work on EPG accessibility

- 2.16 In setting out Ofcom's decisions on the issues on which we consulted in our 2017/18 consultation, this statement also takes into account previous work by Ofcom including:
- the 2014 call for inputs ('CFI')⁸;
 - the 2015 consultation on EPG accessibility (the '**2015 consultation**')⁹; and
 - stakeholder discussions since 2015.

⁴ [2015 report](#).

⁵ Figure 1, Page 8, [EPG Accessibility, Proposed improvements for people with visual impairments, Ofcom, December 2017](#).

⁶ [EPG Accessibility, Proposed improvements for people with visual impairments, Ofcom, December 2017](#).

⁷ [EPG Accessibility consultation page](#).

⁸ [Speaking TV programme guides: would they help people with visual impairments, and are they feasible? \(CFI\), Ofcom, July 2014](#).

⁹ [What's on the telly? Proposed improvements to EPG accessibility for people with visual impairments, Ofcom, July 2016](#).

- 2.17 When we introduced the Code (in 2004), we recognised that there was “limited scope to reconfigure EPGs so as to facilitate their use by people with disabilities affecting their sight or hearing”. However, in recent years, technical and market developments have resulted in some TV receivers offering features which help people with visual impairments to use them more easily.
- 2.18 This led to us having discussions with TV service providers about the possibility that they might do more to improve the usability of their EPGs, which led to our CFI and 2015 consultation. Responses to the 2015 consultation are summarised in section 3 of the 2017/18 consultation. A further consultation in 2017/18 has allowed us to take into account technological and market developments since 2015 (outlined on page 8 of the 2017/18 consultation), broader international developments, such as the mandating of TTS functionality by the FCC¹⁰ in the United States, and the progress of the European Accessibility Act¹¹.

¹⁰ [The FCC rules.](#)

¹¹ [Information about the proposal.](#)

3. Consultation proposals and responses

Ofcom's proposals

- 3.1 In summary, in the 2017/18 consultation we proposed amending the EPG Code so that EPG providers would be required to follow the practice of using reasonable endeavours to secure so far as practicable that their EPGs, as accessed via the next generation of TV receivers, incorporate all or as many as possible of the following functionalities: 'text-to-speech', 'filtering or highlighting', 'magnification' and 'high contrast' displays¹².
- 3.2 The use of 'reasonable endeavours so far as practicable' is a less strict practice than the 'best endeavours' approach that we had initially proposed in our 2015 consultation. However, in the 2017/2018 consultation we also proposed:
- a) that the changes would apply to EPGs made available via the 'next generation' of all TV receivers beginning development after the changes to the EPG Code take effect (and any subsequent models), instead of applying to multi-functional receivers only, as we had initially proposed; and
 - b) strengthening existing reporting practices, instead of removing them, as we had initially proposed.
- 3.3 We proposed to implement these changes by amending paragraphs 8-10 of the EPG Code.¹³
- 3.4 We also proposed some additional changes to paragraphs 7, 11 and 13 of the EPG Code to simplify the EPG Code.¹⁴
- 3.5 All the changes that we proposed to make to the EPG Code were shown in Annex A5 to the 2017/2018 consultation.
- 3.6 In this section, we summarise the comments made by stakeholders on our proposals set out in the 2017/18 consultation and other issues, providing our view on the arguments presented and the conclusions we have reached.

Reasonable endeavours approach

Summary of responses

- 3.7 The European Guide Dog Federation, the RNIB and a number of individuals stated that they did not believe that a requirement to use "reasonable endeavours" went far enough and expressed a preference for a more prescriptive approach for delivering the accessibility

¹² Displays with a contrast ratio of no less than 7:1, as set out in guideline 1.46 of [Web Content Accessibility Guidance 2.0](#).

¹³ See paragraphs 4.98-4.99 of the 2017/2018 consultation

¹⁴ See paragraphs 4.100-4.101 of the 2017/2018 consultation.

features outlined in our consultation.¹⁵ The RNIB said that if this did not happen then providers would be able to “to continue to fail to take action for the very reasons they have specified in their responses to the previous consultation”.¹⁶ Both organisations referred to the Equalities Act 2010 as another reason to evidence that a ‘reasonable endeavours’ approach was not appropriate and needed to be stronger to ensure visually impaired consumers were being treated on equal terms with those without these disabilities.¹⁷

- 3.8 A number of industry parties (Confidential, BT, Virgin Media and TalkTalk) welcomed the modification from the 2015 consultation approach in this area. TalkTalk stated in its response that the final position reached was “broadly appropriate and proportionate”, they continued to state that it had struck a good balance between delivering for visually impaired viewers and understanding the market.¹⁸
- 3.9 However, industry respondents were also concerned that our proposed approach was too prescriptive in terms of which accessibility features should be included. BT stated it believed that we should not impede providers operating in a “dynamic marketplace where technology and consumer needs are accelerating” and consider that there might be other innovative solutions that could deliver for consumers.¹⁹

Ofcom’s decision

- 3.10 We consider that the approach outlined in this statement recognises the considerable difficulties people with visual impairments face when using EPGs to explore the wide range of content available to all viewers. By requiring EPG providers to ensure that their EPGs include additional accessibility features by using ‘reasonable endeavours, so far as practicable’, we are making it clear that we want to see industry make advancements in the delivery of these features.
- 3.11 We do not consider that in the short/medium term, the market alone is likely to address the issues that people with visual impairments are facing in the UK in the absence of regulation. For instance, we do not believe that significant progress has been made since we initially consulted stakeholders in 2015. The 2017/18 consultation set out Ofcom’s understanding of the accessibility features currently offered by EPG providers²⁰. In summary, some EPG providers are now able to provide magnification functionality, and two have introduced voice activation using existing voice recognition systems (e.g. Amazon Echo). For the majority of EPG providers, the only TTS functionality provided is via companion apps (see below).

¹⁵ [European Guide Dog Federation Response](#), Page 1. [RNIB Response](#), Page 4. [Mrs P Grant Response](#), Page 1. [Name Withheld 2 Reponse](#), Page 1. [Mr Steven Tyler Response](#), Page 1.

¹⁶ [RNIB Response](#), Page 4.

¹⁷ [RNIB Response](#), Page 5. [European Guide Dog Federation Response](#), Page 1.

¹⁸ [Talk Talk Response](#), Page 1.

¹⁹ [BT Response](#), Page 1.

²⁰ Page 8, figure 1

- 3.12 We know from recent research that people with visual impairment continue to face considerable difficulties in using EPGs to explore the wide range of content available to all viewers. A study in 2017 found coping mechanisms for visual impairments included limiting the content viewed, adjusting the viewing environment, using additional technology, and relying on family and friends to help²¹. We do however recognise that in the longer-term, industry-led initiatives could help make significant progress in this area. We want our approach to be flexible enough to allow scope for innovative solutions that can deliver for visually impaired viewers, or possibly go even further than the features we highlight. We are aware, for example, that the EPG Code covers only the part of the EPG giving access to broadcast services, where industry-led initiatives generally cover all functionality of the EPG (including access to on-demand services).
- 3.13 For these reasons, we have decided to allow EPG providers to use other measures to achieve the EPG functionalities outlined in paragraph 3.1, but only where they are ‘equally effective’. In determining what are ‘equally effective’ measures, we will take into account relevant factors, including costs to consumers, ease-of-use and reliability, as suggested by the RNIB.²²

Text-to-speech (‘TTS’) functionality

Summary of responses

- 3.14 In their responses, individuals and the RNIB stated their belief that TTS is very important to delivering a positive viewing experience for visually impaired viewers.²³ The RNIB described it as “the only fully accessible solution without the requirement of additional technology”. The RNIB also pointed out that currently the idea of using a second device can be expensive and hard to use for visually impaired consumers.²⁴
- 3.15 Industry respondents stated that it could be difficult to introduce TTS to all receivers on both a practical level and on a cost-efficient basis.
- 3.16 It was noted that some EPG licensees have limited influence in the production of the set top boxes they use, due to these being developed and produced on a scale designed for continental or worldwide markets. Virgin Media stated that “all technological development is now managed and resourced by our parent company Liberty Global”.²⁵ TechUK also supported this view stating that “enforcement of any feature set for a specific country/market is likely to result in a reduction of choice for consumers as device manufacturers

²¹ For more information about the research see “Access to broadcast and on-demand content: Time to catch up!”

²² [RNIB response](#) page 7

²³ [Mrs P Grant Response](#), Page 1. [Name Withheld 2](#), Page 1. [Colin Lamont Response](#), Page 1. [Steve Nutt Response](#), Page 1.

²⁴ [RNIB Response](#), Page 3.

²⁵ [Virgin Media Response](#), Page 2.

are forced to remove ranges and models from sale in the UK that cannot comply with the requirements.”²⁶

- 3.17 Industry respondents including Virgin Media highlighted the use of second screen electronic devices and companion apps as an industry-led development that can provide TTS functionality without this functionality being built into the TV receiver.²⁷ YouView stated that they were worried that mandating certain accessibility features would “not take into account the changing pace of technology and similarly, could stifle innovation and creativity for accessibility”.²⁸ Tech UK similarly expressed concerns that our proposals do not take into account the rapid development of voice control user interfaces, which have the potential to provide major usability benefits to users with visual impairments.

Ofcom’s decision

- 3.18 We recognise the importance placed on TTS by visually impaired people and their desire to see it more widely available across the market. We are not persuaded that companion apps are a sufficient substitute for speaking EPGs. Blind and partially sighted people are often older and on a restricted income. Companion apps require such users to have a suitable mobile device, pay for it (and a broadband connection), and possess the dexterity and cognitive abilities to use a touch-screen device they cannot see well or at all. Therefore, we remain of the view that it is appropriate to encourage the adoption of the TTS functionality.
- 3.19 However, we do believe that there may be ways of providing TTS functionality which are as effective as building that functionality into the TV receiver device. We were encouraged by some of the consultation responses such as that of Virgin, who suggested other ways to support customers who cannot operate a touch-screen device.
- 3.20 For those customers who cannot operate a more sophisticated device, there may be other ways to support them given the expense involved of integrating for all customer devices such functionality.
- 3.21 We also acknowledge the potential of future user-interfaces to provide visually impaired users with options for accessibility beyond those specified in our required practices.
- 3.22 We have therefore decided to allow for ‘equally effective’ measures to be introduced by EPG providers to achieve the TTS functionality. Particularly where costs of implementing ‘built-in’ TTS would be disproportionate, we want to encourage providers to look into other innovative ways of delivering these benefits to consumers.
- 3.23 In relation to costs, we believe that our proposals acknowledge the cost implications of providing TTS via the TV receiver, and the limited influence of some EPG providers over that technology. We have been given limited information on projected costs of implementing TTS, which has informed our impact assessment. We have considered the

²⁶ [TechUK Response](#), Page 4.

²⁷ [Virgin Media Response](#), Page 2.

²⁸ [YouView Response](#), Page 3.

additional cost estimates provided in response to the 2017/2018 consultation (see the Impact Assessment paragraph A2.71). In light of consultation responses, we remain of the view that the approach that we have decided to adopt would ensure that no disproportionate burden is imposed on industry, since we would consider on a case-by-case basis what is reasonably practicable for each individual EPG licensee.

Filtering or highlighting, magnification and high contrast displays

Summary of responses

- 3.24 Individuals and consumer groups supported the proposals on these accessibility features.²⁹ The Communications Consumer Panel stated they wanted to see EPGs require “high contrast of the text to not less than 7:1, as recommended by RNIB and WCAG”.³⁰ One person stated it would be beneficial to them for EPGs to have readable items in large font with reverse contrast (i.e. white text on black background).³¹
- 3.25 TechUK suggested “that in the context of High Contrast displays the proposed ratio of 7:1 is excessive and the requirement defined in WCAG2.0 for level AA which defines the contrast ratio for regular sized text as 4.5:1 is better suited to mass market consumer devices.”
- 3.26 TechUK also expressed concerns regarding the ‘filtering or highlight’ function being complex to implement, stating that “many device and component specifications may not be able to support such feature development.”³² YouView and Virgin Media also said that to provide this function they would need to receive the corresponding metadata from the content providers, if they were to do so they would see this feature as a feature they would look to develop.³³

Ofcom’s decision

- 3.27 We do not agree that the option for a contrast ratio of 4.5:1 is a more appropriate practice than 7:1. The WGAG ‘level AA’ requirement of 4.5:1 is in relation to users with vision loss equivalent to approximately 20/40 vision, the typical visual sharpness of 80 year olds. However, Ofcom’s changes to the EPG Code aim to provide options for greater accessibility to those with significant sight impairment. The WGAG ‘level AAA’ requirement of 7:1 compensates for loss in contrast sensitivity usually experienced by users with vision loss equivalent to approximately 20/80 vision, and in addition provides contrast enhancement for those with colour vision impairments³⁴. This recommendation therefore will benefit those with significant loss of vision. We have not specified a higher contrast ratio as our

²⁹ [Mrs P Grant Response](#), Page 1. [Name Withheld 1 Response](#), Page 1. [Northamptonshire Association for the Blind Response](#), Page 1. [RNIB Response](#), Page 2-8. [Mrs C Ward Response](#), Page 1.

³⁰ [Communications Consumer Panel](#), Page 3.

³¹ [Ms R Rushen Response](#), Page 1.

³² [TechUK Response](#), Page 3.

³³ [Virgin Media Response](#), Page 5. [YouView Response](#), Page 4.

³⁴ A guide to the WGAS contrast ratio levels can be found [here](#).

understanding is that people with a greater degree of vision loss usually use assistive technologies which include contrast enhancing functionality.

- 3.28 We acknowledge that to filter content by whether or not it carries audio description (or signing) EPG providers rely upon metadata which is given to them by content providers. It is our understanding, however, that such metadata should already be provided in order to fulfil the existing EPG Code obligation to ‘ensure that information included in relation to television programmes indicates which programmes are accompanied by television access services³⁵. The Code on Television Access Services³⁶ requires broadcasters to make such information available to EPG providers (see also 3.57 below).
- 3.29 We acknowledge that implementing the new accessibility features may not be possible in every case. Where a device is unable to support any of the new accessibility features, EPG providers will be required to follow the practice of using reasonable endeavours to implement the changes.
- 3.30 Therefore, we have decided to set a practice for EPG providers to use reasonable endeavours to secure so far as practicable that their EPGs include facilities for filtering, magnification and high contrast displays as proposed. Providers may introduce equally effective measures to ensure the same functionality in each case.

Roll-out across all TV receivers

Summary of responses

- 3.31 We set out in the 2017/18 consultation that our proposed amendments to the EPG Code would apply to EPGs made available via all TV receivers beginning development after the proposed changes to the EPG Code are implemented, and any subsequent models.
- 3.32 Individuals and consumer groups agreed with our proposals.³⁷
- 3.33 TalkTalk agreed with our proposals, stating that they believed that by making requirements universal across all types of receivers, there will be a reduction in risk that the proposed regulation “distorts substitution between the various types of receiver and encourages providers to adopt receivers which are not multi-functional”. They also said that it makes sense for this only to be applicable to new models of TV receivers due to the difference in hardware capabilities and the costs or retrofitting previous models.³⁸
- 3.34 TechUK and YouView said that they did not support applying our amendments to all TV receivers beginning development, stating that we must recognise the “realities of a global development and supply chain. Many models are built to a single specification to meet the

³⁵ EPG Code paragraph 11

³⁶ See paragraph 39, [Ofcom’s Code on Television Access Services](#).

³⁷ [Northamptonshire Association for the Blind Response](#), Page 1. [Name Withheld 1 Response](#), Page 1.

[European Guide Dog Federation Response](#), Page 1. [RNIB Response](#), Page 8-9.

³⁸ [TalkTalk Reponse](#), Page 1.

needs of a number of markets” and could lead to significant cost increases to manufacturers.³⁹

- 3.35 Virgin Media welcomed our acknowledgement of the product development cycle and stated that they believe we should have an understanding that each organisation operates in different development cycles. They stated that this should be considered when it comes to publishing our final statement.⁴⁰ YouView also acknowledged this in their response.⁴¹

Ofcom’s decision

- 3.36 We remain of the opinion that accessibility practices should not be restricted to more expensive TV receivers, risking improved accessibility only for those able to afford those higher-end products. The consultation proposals aim for a more nuanced approach, on a case-by-case basis, taking into account the degree of influence held by EPG providers in relation to a global device market.
- 3.37 We recognise that many TV receivers may already be in advanced stages of their product development cycle. We do not wish to interrupt the development cycle of these TV receivers but will continue to review development through our strengthened reporting practices.
- 3.38 We have therefore decided to apply the accessibility practices to EPGs made available via all TV receivers beginning development after **27 July 2018** (i.e. one month from publication of this statement), and any subsequent models. We think that one month (from publication of our statement) is an appropriate period of time for allowing industry to consider the changes that we are introducing.
- 3.39 As outlined above, we will allow providers to introduce ‘equally effective’ measures to achieve the required functionalities. We note that this could affect the question of provision of the new accessibility features across different devices – for example, where it is difficult to implement the new functions in lower-end devices, a free upgrade (for relevant consumers) to a higher-end device with these functions may be equally effective.

Reporting practices and enforcement

Summary of responses

- 3.40 Individuals and consumer groups agreed with our proposal to strengthen the current reporting practices, with the RNIB stating that “In order to ensure progress is being made (and to ensure that credit is given to service providers who improve the accessibility) a reporting mechanism such as an annual statement will be essential”.⁴²

³⁹ [TechUK Response](#), Page 5. [YouView Response](#), Page 5.

⁴⁰ [Virgin Media Response](#), Page 4.

⁴¹ [YouView Response](#), Page 5.

⁴² [Northamptonshire Association for the Blind Response](#), Page 1. [Name Withheld 1 Response](#), Page 1. [European Guide Dog Federation Response](#), Page 1. [RNIB Response](#), Page 9.

- 3.41 YouView, BT, Virgin Media and TalkTalk said that they agree with our proposal. TalkTalk did however state that, in considering the resulting reports, Ofcom should be mindful of the product development cycles of each EPG provider and should not consider that there has been any breach of the EPG Code by a provider who has not made progress towards increasing accessibility in a year when it has not launched a new set top box, or fundamentally overhauled an existing model.
- 3.42 Virgin Media said that it may not be able to make all information public due to the confidentiality of its technical development and had concerns this would possibly underestimate the ongoing work and investment it is making in terms of delivering accessibility features.⁴³
- 3.43 The RNIB said that it wanted to see what penalties would apply to EPG licensees who do not comply with the amended EPG Code. It said that it would like to see us “advocate financial penalties for non-compliance including a failure to adequately report progress or lack of progress as well licence restrictions in order that the duty to make their EPGs accessible is taken seriously.”⁴⁴

Ofcom’s decision

- 3.44 We consider it appropriate to strengthen the current reporting practices (as proposed in the 2017/2018 consultation) as the new annual reports will allow us to monitor progress by providing information on whether EPG providers have made ‘reasonable endeavours so far as practicable’ to implement the required features, or to introduce ‘equally effective’ measures.
- 3.45 We will obtain these reports in November each year, with a view to communicating with EPG providers (where necessary) in advance of the following year’s product development cycle.
- 3.46 As to Virgin Media’s concerns on confidentiality, we will take into consideration any representations from EPG providers when determining which information we consider to be confidential and whether it is appropriate to make any suitable redactions.
- 3.47 In response to TalkTalk’s point on reporting, Ofcom will consider these annual reports in relation to the obligations as laid out in the new EPG Code (see Annex A4) which apply only to TV receivers beginning development after 27 July 2018, and all subsequent models, as outlined above at 3.38.
- 3.48 In response to RNIB’s comments on penalties, failure to comply with the EPG Code might lead to serious consequences, including the potential imposition of a financial penalty. This is because EPG licensees are subject to a licence condition which requires them to comply with the EPG Code. Therefore, a breach of the EPG Code could result in a breach of the relevant EPG licence.

⁴³ [YouView Reponse](#), Page 6. [BT Response](#), Page 1-2. [TalkTalk Response](#), Page 3. [Virgin Media Response](#), Page 4

⁴⁴ [RNIB Reponse](#), Page 10.

Other issues raised by respondents

The European Accessibility Act ('EAA')

Stakeholders' comments

3.49 TechUK and Virgin Media noted that our consultation is taking place at the same time as the continued debate on the EAA within the European Parliament. TechUK said it would like Ofcom to consider the “potential opportunities for unified dialogue on these areas of accessibility and avoid conflict or divergence from a Pan European directive which manufacturers will want to see applied consistently across Europe and the UK.”⁴⁵

Ofcom's response

3.50 In Annex A1 (paragraph A1.14) we outline the background to the EAA, which is still going through its legislative process.⁴⁶ Taking into account that our proposals are broadly in line with the overall policy aims of the EAA, we do not think it would be appropriate to wait until the EAA has been agreed.

Future parity with over the top ('OTT') players

Stakeholders' comments

3.51 Virgin Media said it would like to see us bring EPGs delivered over the internet in line with those delivered to set top boxes and other traditional receivers covered by the EPG Code. It pointed to more consumers getting their content from OTT players and would like us to “bring into scope in its EPG Code services such as the BBC iPlayer, Amazon and Now TV all of whom provide linear TV over IP.”⁴⁷

Ofcom's decision

3.52 To the extent that any particular service (including a service provided over IP) consists of the elements set out in the definition of 'electronic programme guide' in section 310(8) of the Act, it falls within the scope of the EPG Code. The Act specifies that a 'television licensable content service' (including EPGs) can be provided by any means involving the use of an electronic communications network (see s.232(1)(b) of the Act).

⁴⁵ [TechUK Response](#), Page 4-5. [Virgin Media Response, Page 3-4](#).

⁴⁶ [European Accessibility Act progress](#).

⁴⁷ [Virgin Media Response](#), Page 5.

Specific amendments to the EPG Code

3.53 As set out in paragraphs 3.3-3.4 above, in our 2017/2018 consultation, we proposed to implement the introduction of the additional accessibility features by amending paragraphs 8-10 of the EPG Code. We also proposed some further changes to paragraphs 7, 11 and 13 of the EPG Code to simplify it. All the changes that we proposed to make to the EPG Code were shown in Annex A5 to the 2017/2018 consultation.

Summary of responses

3.54 With reference to our proposed amendment to paragraph 7 of the EPG Code, YouView asked whether it “remains open for EPG providers to continue to consult with their preferred disability groups as opposed to any particular groups mandated by Ofcom”.

3.55 Virgin Media expressed concerns over the changes to paragraph 11 to remove the caveat ‘where practicable’, stating that **platforms who provide EPG services are reliant entirely on broadcasters and content providers supplying the correct metadata in order to signal the presence of access services.**

Ofcom’s decision

3.56 Paragraph 14 of the revised EPG Code (as re-numbered) sets out a practice for EPG providers to work with broadcasters, platform providers and disability groups to publicise the information and facilities available on EPGs to assist disabled people. We would encourage providers to work with as wide a variety as possible when it comes to developing accessibility products and policies.

3.57 We do not agree with Virgin Media’s concerns over removal of the caveat ‘where practicable’ in paragraph 11 of the EPG Code. EPG providers have in the past complied with this practice, and none has suggested previously that it is not practicable to do so. We also note, as stated in the same paragraph, that a corresponding provision has been included in the Code on Television Access Services requiring broadcasters to make such information available to EPG providers⁴⁸ (see also paragraph 3.28).

3.58 We have decided to amend paragraphs 7, 8, 9, 10, 11 and 13 of the current EPG Code as proposed in the 2017/2018 consultation, with two changes in paragraph 8 (as re-numbered):

- a) we have replaced the words “options” with “facilities” for greater clarity; and
- b) we have added the words “or introduce accessibility features that would be equally effective” to allow for an appropriate level of flexibility (see paragraphs 3.12-3.13 above).

⁴⁸ See paragraph 39 of [Ofcom’s Code on Television Access Services](#).

- 3.59 All the changes that we have decided to make to the EPG Code are shown in Annex A4 to this statement.

Respondents' comments on the impact assessment

- 3.60 The analysis presented in the 2017/2018 consultation, together with Annex 6 to that consultation, constituted an impact assessment as defined in section 7 of the Communications Act 2003. Impact assessments provide a valuable way of assessing different options for regulation and showing why the preferred option was chosen. They form part of best practice policy-making.
- 3.61 In the 2017/2018 consultation, we asked stakeholders whether they agreed with our assessment of the impact of our proposals, in terms of the benefits and costs associated with these proposals for consumers, EPG providers, and set top box manufacturers (question 5).
- 3.62 TechUK had concerns over our impact assessment, stating that it believed we had failed to “recognise the amount of investment device manufacturers have made and are making to support improved accessibility and usability of EPG enabled devices for all users, including those with visual impairments.” It went on to state that it believes the number of models being produced with accessibility features continues to grow year on year with no reduction in effort or investment, and therefore questioned Ofcom’s reasoning that the market requires intervention.⁴⁹
- 3.63 The RNIB expressed its disappointment that “the current requirement only being placed on future development will mean that many of these accessibility features may not appear on the market for several years”.

Ofcom’s decision

- 3.64 As outlined in paragraph 3.11 above, we do not consider sufficient improvement to have been made over the last three years in the absence of regulation. However, we do acknowledge the potential for innovation in this area and so will allow EPG providers to introduce ‘equally effective’ measures to achieve the accessibility features specified (see 3.12 above).
- 3.65 The effect of this amendment is considered in our revised impact assessment (Annex A2).

Respondents' comments on the equality impact assessment

- 3.66 Annex 7 to the 2017/2018 consultation contained our Equality Impact Assessment (‘EIA’) for the proposals set out in that consultation document. Ofcom is required by statute to assess the potential impact of all our functions, policies, projects and practices on the following equality groups: age, disability, gender, gender reassignment, pregnancy and maternity, race, religion or belief and sexual orientation. EIAs also assist us in making sure

⁴⁹ [TechUK response](#), Page 6-7.

that we are meeting our principal duty of furthering the interests of citizens and consumers regardless of their background or identity.

- 3.67 In summary, we considered that our proposals would have a positive impact on people with disabilities, people whose age-related conditions may make them vulnerable, and potentially also on people belonging to other equality groups. We also said that we did not believe that our proposals would have any detrimental impact on any of the relevant equality groups.⁵⁰
- 3.68 In the 2017/2018 consultation, we asked stakeholders whether they agreed with our assessment of the impact of our proposals on the relevant equality groups (Question 6). The RNIB believed that Ofcom's assessment failed to assess the impact of failure to mandate (via a 'best endeavours' approach) the specified features.

Ofcom's decision

- 3.69 The EIA looks at the impact of changes relative to the status quo, rather than to a range of alternative changes. We remain of the view that the changes that we proposed and have decided to make to the EPG Code will have a positive impact on certain equality groups, as set out in the EIA accompanying this statement (Annex A3).

Conclusions

- 3.70 In conclusion, we have decided to implement our proposals to set a practice for EPG providers to use reasonable endeavours to secure, so far as practicable, that their EPGs include facilities for users to do all or as many as possible of the following:
- a) render text needed for EPG navigation and the provision of information on channels and programmes included in the EPG as speech;
 - b) highlight or list separately programmes with audio description, and with signing;
 - c) adjust the display of EPG information so that it can be magnified, or the text enlarged; and
 - d) switch between the default and 'high contrast' displays (i.e. a display with a contrast ratio of no less than 7:1).
- 3.71 In light of stakeholders' comments, we have decided to aim for an appropriate level of flexibility by allowing EPG providers to adopt accessibility features that would be as effective as the features set out above.
- 3.72 These changes to the EPG Code will take effect from today. However, the practice to provide the new accessibility features will apply to EPGs made available via all TV receivers beginning development after **27 July 2018**, and any subsequent models.

⁵⁰ See paragraphs A7.9-A7.10 of Annex A7 to the 2017/2018 consultation.

- 3.73 We are also strengthening the current reporting requirements by making clear that if an EPG licensee has been unable to secure all or any of the prescribed accessibility features, its annual statement submitted to Ofcom should outline the alternative steps the EPG provider has taken to increase accessibility. The first annual report under the revised rules will be due by **30 November 2018**.
- 3.74 In addition to implementing these changes by amending paragraphs 8-10 of the current EPG Code, we have decided also to make the further changes to paragraphs 7, 11 and 13 that we proposed to simplify the EPG Code.
- 3.75 All the changes that we have decided to make to the EPG Code are shown in Annex A4 to this statement.

Next Steps

- 3.76 Ofcom is publishing the revised Code (see Annex A3) alongside this statement.
- 3.77 We will contact EPG providers and other stakeholders to arrange roundtable discussions prior to the first reporting deadline in November 2018.

A1. Legal Framework

The Communications Act 2003

- A1.1 In making a final decision on the changes outlined in this statement, Ofcom has taken account of our statutory duties, as set out in the Communications Act 2003 (the ‘Act’)
- A1.2 Ofcom’s principal duty, set out in section 3(1) of the Act, is to further the interests of:
- a) citizens in relation to communications matters, and
 - b) consumers in relevant markets, where appropriate by promoting competition.
- A1.3 In carrying our statutory duties, we are required by section 3 of the Act to have regard in all cases to a number of factors, including:
- a) the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed; and
 - b) any other principles appearing to us to represent the best regulatory practice.
- A1.4 In addition, section 3(2) of the Act requires Ofcom to secure certain things in carrying out its statutory functions, including the availability throughout the United Kingdom of a wide range of television and radio services which (taken as a whole) are both of high quality and calculated to appeal to a variety of tastes and interests.
- A1.5 In carrying out our duties, we must also have regard to certain matters listed in section 3(4) of the Act, as appear to us to be relevant in the circumstances. These matters include, in particular, the needs of persons with disabilities, of the elderly and of those on low incomes (section 3(4)(i)).
- A1.6 In performing our duty to further the interests of consumers, we are also required to have regard in particular to the interests of those consumers in respect of choice, price, quality of service and value for money.
- A1.7 We are also required to:
- a) keep the carrying out of Ofcom’s functions under review to ensure that regulation does not involve the imposition of burdens which are unnecessary or the maintenance of burdens which have become unnecessary (section 6); and
 - b) take such steps and to enter into such arrangements as appear to us calculated to encourage others to secure that domestic electronic communications apparatus is developed which is capable of being used with ease, and without modification, by the widest possible range of individuals (including those with disabilities); and such apparatus is as widely available as possible for acquisition by those wishing to use it (section 10).
- A1.8 Ofcom has also certain duties which specifically relate to the accessibility of EPGs, set out in section 310 of the Act. In particular, these are to draw up, and from time to time review

and revise, a code giving guidance as to the practices to be followed in the provision of electronic programme guides (section 310(1)).

- A1.9 Section 310(2) of the Act provides that the practices to be required by the code must include the incorporation of such features in EPGs as Ofcom considers appropriate for securing that persons with disabilities affecting their sight or hearing or both:
- a) are able, so far as practicable, to make use of such guides for all the same purposes as persons without such disabilities; and
 - b) are informed about, and are able to make use of, whatever assistance for disabled people is provided in relation to the programmes listed or promoted.

Ofcom’s Code on Electronic Programme Guides⁵¹

- A1.10 Under the Broadcasting Act, Ofcom licenses providers of EPGs that are ‘made available for reception by members of the public’ (as defined in section 361 of the Act) and consist of the listing or promotion (or both) of television programmes together with a facility for obtaining access to those programmes (the ‘**EPG licensees**’ or ‘**EPG providers**’). EPG licensees are required to ensure that the rules set out in Ofcom’s EPG Code are observed in the provision of EPGs.
- A1.11 Ofcom’s EPG Code was adopted in 2004 and amended in March 2005. Paragraphs 5 to 13 of the EPG Code concern the practices that EPG providers are required to follow in relation to assistance to people with hearing and/or visual disabilities. In paragraph 2.4 we have summarised the content of these provisions.

The Audiovisual Media Services Directive

- A1.12 Directive 2010/13/EU (the ‘**AVMS Directive**’),⁵² which is currently under review,⁵³ governs EU-wide coordination of national legislation on all audiovisual media services, including electronic programme guides.
- A1.13 Article 7 of the AVMS Directive requires Member States to “encourage media service providers under their jurisdiction to ensure that their services are gradually made accessible to people with a visual or hearing disability”. The changes that Ofcom has decided to make to the EPG Code are in line with this EU requirement.

The European Accessibility Act

- A1.14 After Ofcom published the 2015 consultation on EPG accessibility, the European Commission proposed a set of common accessibility requirements at EU level for a number

⁵¹ [The EPG Code.](#)

⁵² [See the Directive.](#)

⁵³ [Information on the review.](#)

of products which would be set out in a Directive of the European Parliament and of the Council (the '**European Accessibility Act**').⁵⁴ These initial proposals also include accessibility requirements for audiovisual media services such as television broadcast, and related consumer equipment.⁵⁵ Specifically, the proposed accessibility requirements for these services (and related consumer equipment) include, among other requirements, alternatives to speech for communication, and flexible magnification and contrast. The European Accessibility Act is still going through its legislative process.⁵⁶

⁵⁴ The [European Commission proposal](#) for a Directive of the European Parliament and of the Council on the approximation of the laws, regulations and administrative provisions of the Member States as regards the accessibility requirements for products and services of 2 December 2015 (COM/2015/0615 final).

⁵⁵ See Article 3(5) of the European Commission proposal.

⁵⁶ [European Accessibility Act progress](#).

A2. Impact Assessment

Introduction

- A2.1 The analysis presented in the 2017/2018 consultation, together with Annex 6 to that consultation, constituted an impact assessment as defined in section 7 of the Communications Act 2003 (the ‘Act’). Impact assessments provide a valuable way of assessing different options for regulation and showing why the preferred option was chosen. They form part of best practice policy-making.⁵⁷
- A2.2 In this Annex, we set out our final assessment of the impact of the changes that we have decided to make, taking account of stakeholders’ comments as well as the changes that we have made to our proposals in light of consultation responses (see paragraph A2.6).

Consultation proposals and stakeholder comments

- A2.3 In the 2017/2018 consultation, we discussed two options: first, the option to ‘do nothing’ (i.e. have no changes to the accessibility practices set out in the EPG Code); and second, the option to amend the EPG Code so that it would set out a practice for EPG providers to use reasonable endeavours to secure so far as practicable the adoption of certain additional accessibility features which would help visually impaired people to use EPGs.
- A2.4 Our provisional view, subject to consultation, was that:
- a) Option 1 (doing nothing) would not meet the needs of the visually impaired. The current limited provision of accessibility features on EPGs was restricting visually impaired people’s programming and platform choice relative to those without such disabilities. We did not consider that the proposed accessibility features would be provided in the short-to-medium term without regulation;
 - b) Option 2 offered the most appropriate means of assisting people with visual impairments to use EPGs for the same purposes as those without visual impairments.
- A2.5 We asked stakeholders whether they agreed with our assessment of the impact of our proposals, in terms of the benefits and costs associated with these proposals for consumers, EPG providers, and set top box manufacturers (question 5). We received limited responses on this point:
- a) TechUK questioned our reasoning that the market requires intervention, pointing out the continuing growth in the number of models being produced with accessibility features.⁵⁸ See paragraphs A2.25- A2.28 below.

⁵⁷ For further information about Ofcom’s approach to impact assessments, see the guidelines Better policy-making: Ofcom's approach to impact assessment, which are on Ofcom’s website: [Better policy making](#)

⁵⁸ [TechUK response](#), Page 6-7.

- b) Two confidential respondents provided cost estimates, with one of these respondents noting the importance of assessing the opportunity cost of our proposals. See paragraph A2.71 below.
- c) The RNIB expressed its disappointment that the application of the policy to new TV receivers only will mean that improved accessibility may not appear on the market for several years.

Ofcom's assessment

- A2.6 We have updated our impact assessment in light of these responses and to reflect our decision (as set out in paragraph 1.6) to allow providers to introduce 'equally effective' features to allow for the possibility of current and future innovations in technology and user preferences (see paragraph A2.80 below).
- A2.7 Our view remains that Option 2 (amending the EPG Code so that it would set out a practice for EPG providers to use reasonable endeavours to secure so far as practicable the adoption of certain additional accessibility features which would help visually impaired people to use EPGs) remains an appropriate means of assisting people with visual impairments to use EPGs for the same purposes as those without visual impairments.

Current situation

- A2.8 As set out in paragraph 2.12 above, EPG providers and their industry partners currently provide a variety of solutions for the visually impaired. These vary by provider but include the option of high contrast displays, the option to magnify portions of the EPG display, and the option of text to speech (TTS) within EPGs, to enable information within the EPG to be read out (currently, only when EPGs are accessed via a TTS-enabled smart television).⁵⁹
- A2.9 In addition, some EPG providers offer the alternative of a TV guide app that can be installed on mobile devices (e.g. smartphones and tablets) and can make use of the TTS facility that they offer.

Policy Objectives

- A2.10 As explained in Annex A1, Ofcom has a duty to draw up, and from time to time review and revise, a code giving guidance as to the practices to be followed in the provision of electronic programme guides (the 'EPG Code'). The practices required by the EPG Code must include the incorporation of such features in EPGs as Ofcom considers appropriate for securing that persons with disabilities affecting their sight are able, so far as practicable, to make use of such guides for all the same purposes as persons without such disabilities (section 310(3)(a) of the Act).

⁵⁹ See also Figure 1, page 8 of the 2017/18 Consultation.

Assessing the impact on stakeholders

- A2.11 In assessing which accessibility features should be incorporated, we consider the impact on stakeholders of the introduction of any additional feature. In this Annex, we examine the likely costs and benefits of our decisions and we quantify them where possible.
- A2.12 In this case, quantifying the benefits of the accessibility features for people with visual impairments is challenging. We have therefore taken a qualitative approach to assessing the likely benefits, that is, to describe the difficulties faced by the visually impaired, and the nature of the benefits to them that the accessibility features might provide.
- A2.13 In assessing costs, we have drawn on the high-level cost estimates provided by stakeholders in response to the 2014 Call for Inputs and the 2015 consultation as well responses to the 2017/18 consultation, along with the qualitative information on potential costs provided by stakeholders. We also note that, due to technological advances, costs may have decreased in recent years.

Option 1: No changes to accessibility requirements set out in the EPG Code (the ‘do nothing’ option)

- A2.14 We first consider the ‘do nothing’ option of making no changes to the current accessibility practices set out in the EPG Code.
- A2.15 Under this option, it is likely that the current situation will prevail in the short term. In their responses to Ofcom’s 2014 CFI, none of the TV service providers committed to incorporating TTS in future EPGs. In a confidential response, one TV service provider said that it was unlikely to divert resources from other initiatives to focus on incorporating TTS.⁶⁰
- A2.16 We also note that the lead time for developing features for TV receivers can be a few years, so that a decision by EPG providers not to pursue additional accessibility features in the short term could defer the prospect of a more accessible EPG for visually-impaired viewers for several years.
- A2.17 At present, as set out in paragraph 3.11 we are not persuaded at this stage that, absent regulation, TTS-enabled EPGs would be widely adopted by many of the most popular pay and free-to-air providers of TV services for the foreseeable future.
- A2.18 Some EPG providers currently offer the alternative of a TV guide app that can be installed on mobile devices (e.g. smartphones and tablets) and can make use of the TTS facility that they offer. Using TV guide apps to find out about TV programmes and channels requires both the ownership of and the facility to use a touch screen device. Some people with visual impairments have both, and report that such TV guide apps can be very useful.

⁶⁰ ✂

- A2.19 However, research suggests that only 48% of people with a visual impairment have access to a smartphone, while only 33% of those with a visual impairment have access to a tablet.
- A2.20 Further, some older visually impaired people may find suitable touch screen devices difficult to use. This may be because they find it hard to see buttons on the screen. Older people are also more likely to suffer from loss of manual dexterity, growing cognitive impairment and unwillingness to contend with ‘new’ technology.
- A2.21 A third of visually-impaired consumers said their disability limited or prevented their use of communication services and devices. Use of a tablet was most limited by a consumers’ visual disability; 7% said they did not use a tablet as factors including their disability prevented this.
- A2.22 Hence, for many people with visual impairments, apps on mobile devices are unlikely to be a solution to the current inaccessibility of EPGs.
- A2.23 As regards the other accessibility features that we have decide to cover in the new practice, that is, high contrast displays, filtering/highlighting programmes with audio description, and magnifying parts of the EPG, we note that, some EPG providers have provided some of these, but that provision is patchy.
- A2.24 As such, under this option there will be little impact on consumers or EPG providers and TV/STB receiver manufacturers. As a result, the ‘do nothing’ option is unlikely to ensure that visually impaired people are able, so far as practicable, to make use of EPGs in the same way as those without such disabilities, and would therefore fail to meet our policy objectives.
- A2.25 In its response to the 2017/18 consultation, TechUK raised concerns that we had failed to “recognise the amount of investment device manufacturers have made and are making to support improved accessibility and usability of EPG enabled devices for all users, including those with visual impairments.” It went on to state that it believes the number of models being produced with accessibility features continues to grow year on year with no reduction in effort or investment, and therefore questioned Ofcom’s reasoning that the market requires intervention.⁶¹
- A2.26 As outlined in paragraph 3.111 above, we do not consider sufficient improvement to have been made over the last three years in the absence of regulation. However, we do acknowledge the potential for innovation in this area and so have revised our proposals to allow EPG providers to introduce ‘equally effective’ measures (see 3.13 above).
- A2.27 It is possible that, in the longer term, the market delivers solutions that sufficiently address the current problems faced by visually impaired television viewers. For example, as technological developments encourage providers to offer these features commercially or as apps on second screen devices became a more effective substitute for TTS-enabled EPGs. However, we consider this to be unlikely in the short-to-medium term, given that visually impaired people tend to be slower to adopt new technology and providers appear

⁶¹ [TechUK response](#), Page 6-7.

unlikely to prioritise a feature for partially-sighted customers over features that would address the needs of the whole market.

- A2.28 Against this background, our view is that without the amendments that we have decided to make to the EPG Code, availability of the new accessibility features would be patchy and would fail to address the needs of many visually impaired people. Accordingly, our view is that the ‘do nothing’ option would not secure that people with visual impairments are able, so far as practicable, to use EPGs and therefore would not allow us to fulfil our statutory duties in relation to these consumers.

Option 2: Improved accessibility features (as set out in the amendments to EPG Code – see Annex A4)

- A2.29 We have decided to set out a new practice that EPG providers should use reasonable endeavours to secure so far as practicable that their EPGs include facilities for users to do all or as many as possible of the following, or to introduce accessibility features that would be equally effective:
- a) render text as speech for EPG navigation and the provision of information on channels and programmes included in the EPG, to make it easier for people with limited or no useful vision to use the EPGs. We refer to this as ‘text to speech’ or ‘TTS’;
 - b) highlight or list separately programmes with audio description (and with signing), to make such programmes easier to find;
 - c) adjust the display of EPG information so that it can be magnified, or the text enlarged; and
 - d) switch between the default and ‘high contrast’ displays.⁶²
- A2.30 These new practices will apply to EPGs made available via all consumer TV receivers beginning development after **27 July 2018** (i.e. one month from publication of this statement), and any subsequent models.
- A2.31 As outlined in Section 2 of our 2017/18 consultation, and Annex 2 of the 2015 consultation, available evidence suggests that each of these features is helpful to some people with visual impairments, with each intervention addressing a different aspect of the current inaccessibility of EPGs for people with visual impairments. For example, high contrast displays can help those whose vision is blurred or affected by a loss of contrast sensitivity and, in some cases, may provide sufficient accessibility. The same people may also benefit from the ability to have information displayed in larger text. TTS can benefit both those who have some useful vision, and those who have none. For example, people with restricted fields of vision may be able to see portions of the EPG, but it is likely they would find some programme searches very time-consuming. TTS can make the process of finding programmes much quicker and less demanding.

⁶² A display with a contrast ratio of no less than 7:1.

A2.32 It is our view that each of these features is necessary to achieve our policy objective.

Potential impact on stakeholders

A2.33 The potential impact of the changes to the EPG Code that we have decided to make will depend on what, if any, changes EPG providers make as a result of the amendments to the EPG Code.

A2.34 It is uncertain how quickly EPG providers would adopt each of the accessibility features as this will vary depending, in part, on where different providers are in their product life cycle.

A2.35 In addition, we recognise (as discussed below in paragraphs A2.50-A2.62) that this may also vary by provider given the different business models within the industry, as a result of which, not all EPG licensees necessarily have total control over all the elements needed to deliver the new accessibility features.

A2.36 Nevertheless, for the purposes of this impact assessment, we assume that all EPG providers adopt each of the new accessibility features. In our view, the impact assessment demonstrates that each feature is proportionate and that their cumulative effect is also proportionate.

A2.37 We now consider how the changes that we have decided to make may affect different stakeholder groups:

- a) consumers;
- b) EPG providers; and
- c) STB/TV receiver manufacturers.

Consumers

A2.38 With around two million people in the UK having poor or no vision⁶³, we consider it is likely that a significant number of people, many of whom are older, would benefit from more accessible EPGs.

A2.39 For these people, inaccessible EPGs may prevent them from maximising the benefits of the TV programming available to them. Since digital switchover, almost everybody has access to dozens of TV channels, while those with Freesat or pay TV packages can watch several hundred. All multi-channel services include EPGs designed to help viewers find the channels and programmes they want to watch⁶⁴. EPGs differ by platform in their design and

⁶³ [The economic impact of partial sight and blindness in the UK adult population](#), July 2009, Access Economics, p. 45)

⁶⁴ We note that the Digital Television Group ('DTG') emphasises the importance of the accessibility of the user interface, stating that 'a talking interface can provide a substantial improvement in accessibility and usability [for blind and partially sighted users]'. The DTG's '[U-Book](#)' outlines minimum requirements to which each TTS enabled product should adhere, and provides guidelines on the behaviour of devices that supports TTS functionality, including guidelines on EPGs.

in the allocation of EPG numbers to different channels. There are also relatively frequent changes to EPGs (to account for channel launches, moves etc.).

- A2.40 Many visually-impaired people will find it difficult or impossible to see and read the EPG. A survey carried out in 2008 found that they relied heavily on memorising channel numbers, and had to relearn them when channels were re-ordered.⁶⁵ The larger number of channels and more frequent changes to channel listings will have made this more difficult. The same survey found people who could not see the EPG tended to watch a more limited repertoire of channels than others. A study in 2017 found coping mechanisms for visual impairments included limiting the content viewed, adjusting the viewing environment, using additional technology, and relying on family and friends to help.⁶⁶
- A2.41 Feedback to Ofcom⁶⁷ suggests that EPGs with better accessibility features and speaking EPGs would provide several benefits to people with a variety of visual impairments:
- a) ability to access a wider choice of programming. EPG features to help viewers identify and select audio-described programmes would make it easier for people with visual impairments to enjoy a greater choice of television programmes, including those with audio description. This is now available on around 85 channels, which are required to audio describe up to 10% of their programming. Many of the most popular channels voluntarily describe 20% or more of their content. Some respondents to the CFI told Ofcom how much they value audio description (see paragraph **Error! Reference source not found.**). However, most EPGs offer no easy way for visually-impaired people to find these programmes;
 - b) greater autonomy, whether living with others or by themselves. Feedback to Ofcom’s CFI suggests that visually-impaired viewers are reluctant to continuously seek help from partners and other household members. Respondents who have TVs with speaking EPGs like the opportunity to do more for themselves; and
 - c) greater social inclusion, as the visually impaired can find and watch programmes that friends, family, workmates and acquaintances are talking about.
- A2.42 Individual respondents to the 2017/18 consultation referred to accessibility as a right and a requirement and called for specific features to be introduced such as high contrast fonts, zoom function, and TTS. Those respondents who were completely blind argued for TTS as their only means of access to the EPG. One respondent addressed the issue of substitute methods of accessing the EPG such as companion device apps, suggesting that there are many barriers for disabled people to use such methods.
- A2.43 We also note that if the new accessibility features were made available in the EPGs for different platforms, this could make it easier for people to benefit from platform switching.

⁶⁵ [People with visual impairments and communications services](#), July 2008, Ofcom

⁶⁶ For more information about the research see [Access to broadcast and on-demand content: Time to catch up!](#)

⁶⁷ From the roundtable we held in April 2014, the call for inputs it published in July 2014, from RNIB and from individual blind users.

Indeed, one respondent to the CFI noted that she couldn't use either Freeview or Sky, as she couldn't see information on the content. If all TV services (cable, satellite and DTT) offered accessible EPGs, this would allow people with visual impairments to benefit from a choice between different platform line-ups, features and premium content.

A2.44 As the UK population ages, and the population with visual impairments increases, the benefits of more accessible EPGs are likely to rise over time. However, other factors would also influence the timing and extent of the benefits:

- a) first, our policy would mainly affect new TV receivers. Even when they become available, someone with a visual impairment would likely only derive the full benefit when they replace their old receiver with a new one. Initially, many people with visual impairments may be unclear about the benefits offered and reluctant to replace a set-top-box/television which is still working (especially if they have limited incomes). Uptake will increase as costs, and so prices, fall with economies to scale, and as current equipment wears out; and
- b) second, as product development life cycles vary, it is likely that implementation timescales will also vary by platform. Thus, a TV service provider that has just launched a new TV receiver without all of the new accessibility features might not offer them in a new TV receiver for some years.

A2.45 In response to the 2017/18 consultation, the RNIB noted their disappointment that the application of the policy to new TV receivers only will mean that improved accessibility may not appear on the market for several years.

A2.46 As acknowledged above, it is likely to take some years before the benefits of our policy begin to be felt, particularly where less affluent people are concerned. However, without an EPG Code change, it is unlikely that all of these features would be provided voluntarily by each EPG provider.

A2.47 Overall our view, is that there are likely to be considerable (non-quantifiable) future benefits to the visually impaired from the new practice on accessibility features that we have decided to set out in the EPG Code.

A2.48 Viewers without visual impairments may also receive some benefits from the availability of extra accessibility features and speaking EPGs on TV receivers. For example, the increasing popularity of devices such as Amazon Echo and Google Home may suggest that those without visual impairments place some value on TTS functionality, although this is likely to be limited.

A2.49 It is possible that all viewers may face slightly higher prices for TV receivers as the cost of introducing these features is likely to be recovered across all such new devices (whether through the price of the TV or set-top box for free-to-air channels or via increased subscriptions for pay-TV channels). However, we believe that the extent of any potential price rise is likely to be limited, and for those with visual impairments it is likely to be below the extra value that those consumers may receive from enhanced accessibility features. This is because the increased costs are likely to be relatively small (see

paragraphs A2.68-A2.73) and will be spread across a large number of TV receivers.⁶⁸ Over time, given that many of the costs are one-off development costs, and as economies of scale are likely to be achieved as the features become standardised across the industry, this should further limit cost and price increases.

EPG providers

- A2.50 EPG providers interact with consumers in the UK in three main ways:
- a) free-to-air TV service providers (Freeview, YouView and Freesat) do not provide TV receivers for sale to end-users, but normally license some receiver manufacturers to use their trademarks (including their logos);
 - b) pay TV operators such as Virgin Media, Sky, BT and TalkTalk supply set top boxes ('STBs') as part of their service to end-users. These operators usually pay manufacturers to make the set-top-boxes (though Sky also manufactures a proportion itself, having bought Amstrad a few years ago) and recover these costs from their end-users (often over a period of time via a monthly subscription charge); and
 - c) free-to-air and pay TV service providers have developed apps for mobile devices that enable all users of their TV services to plan viewing and, in some cases, to remotely programme their PVRs to record programmes. Most have been designed or modified to work with the TTS capabilities of mobile devices.
- A2.51 TV guide apps enable EPG providers to externalise some of the costs of providing text to speech (the mobile device manufacturer provides the functionality, and the end-user purchases the device). Even if EPGs become more accessible, operators will probably continue to maintain and develop these apps, as they are intended to benefit all users.
- A2.52 Given these different business models, it is likely that different providers may face different challenges and costs in implementing the different accessibility features, with a feature that may be straight-forward and fairly costless for one provider to implement being more challenging for another provider.

Free-to-air service providers

- A2.53 Freeview, YouView, and Freesat require STBs/TV manufacturers, as licensees of their trademarks/intellectual property, to comply with certain technical standards.
- A2.54 Basic boxes have an 'open licensing' system i.e. limited requirements for manufacturers who want Freeview/Freesat branding for their boxes.⁶⁹ By contrast, our understanding is

⁶⁸ Because the costs would be spread across a large number of TV receivers/all receivers the potential price rise per unit is likely to be lower than if it was a spread across a smaller number of units targeted only at the visually impaired.

⁶⁹ This allows free-to-air platforms to encourage the manufacture of cheaper boxes, by encouraging manufacturers to take their trademark licences, which in turn helps them achieve their primary objective of competing successfully for market share with pay TV providers.

that the core specifications for EPGs for use in multi-functional TV receivers (Freetime from Freesat, Freeview Play from Freeview, and Youview) are far more detailed.

- A2.55 The changes that we have decided to make to the EPG Code will set out a new practice for these free-to-air service providers to use reasonable endeavours to secure so far as practicable that all future TV receivers include accessibility features for the visually-impaired. We recognise that this will be a bigger change for more basic boxes for which, at present, EPG providers tend to make only limited requirements of their manufacturing partners. However, our view is that the approach that we have decided to adopt would ensure that no disproportionate burden is imposed on industry, since we would consider on a case-by-case basis what is reasonably practicable for each individual EPG licensee.
- A2.56 We would expect this new practice to result in EPG providers negotiating and changing their licence specifications with their manufacturing partners and anticipate this is may involve the EPG providers facing additional administration, legal and compliance costs. Our view is that where this is practicable, these potential extra costs faced by these EPG providers are unlikely to be significant, given that in many cases these discussions should be able to take place within the context of existing dialogue with their manufacturing partners.
- A2.57 We also recognise that in some cases, the EPG providers develop their own software application for their EPG and make this available to manufacturers. In these cases, the EPG provider would have to incur costs in developing this software to enable the new accessibility features to be incorporated.

Pay TV operators

- A2.58 As noted above, Pay TV operators supply their customers with STBs directly as part of their service. The operators themselves source the STBs from manufacturers. As such they will have contractual agreements with these manufacturers, which should include detailed technical requirements for the boxes to be supplied.
- A2.59 The changes that we have decided to make to the EPG Code will require the Pay TV operators to use reasonable endeavours to secure so far as practicable that the STBs supplied to them include the various new accessibility features. As such, we consider that these operators may face a number of extra costs.
- A2.60 First, they might have to change their contracts with their suppliers. This might involve some negotiation, legal and administration costs. Given that the changes to the EPG Code do not require any changes to equipment already designed and in the market (unless the features can be implemented via a software update), this would allow the Pay TV operators and their suppliers to integrate these changes during the design and testing phases of the next generation of set-top boxes. We therefore consider that these costs are likely to be one-off in nature and unlikely to be material.
- A2.61 Secondly, pay TV operators may also face higher prices for the STBs from manufacturers (due to the costs of developing and installing these features in their boxes). This could lead

to reduced profits and/or increased prices to end-users. We discuss these costs further in paragraphs A2.67- A2.73.

A2.62 Finally, as direct suppliers to end-users, they might face extra ongoing costs. For example, increased call centre costs (to support end-users over the phone should they have any difficulties with these features). Our view is that these extra costs are unlikely to be material, as pay TV operators are already likely to have functions that can be adapted to deal with these new requirements.

STB/TV receiver manufacturers

A2.63 There are reasonable grounds for believing that it will be technically feasible for manufacturers of TV receivers to include the new accessibility features in future TV receivers, with each of the accessibility features currently being included in some form or other in STBs/TVs.

A2.64 In this section, we consider the main types of costs manufacturers would face in incorporating each of the new accessibility features. Manufacturers may pass some of these costs on as higher retail prices (either directly to consumers or to Pay-TV providers who purchase such boxes) and/or see reduced profits.

A2.65 We recognise that the actual costs incurred will depend on how much incremental change is required and that this will vary by manufacturer, and that for cheaper, more basic TV receivers the costs may be proportionally greater. However, we consider that this will normally be proportionate and achievable using reasonable endeavours where practicable.

Text to Speech Functionality

A2.66 It is our understanding that of the new accessibility features, incorporating TTS functionality would be the most costly.

A2.67 In this section, we summarise the main types of cost that are likely to be faced in incorporating speaking EPG features into the next generation of STBs/TV receivers (figure 1) and then set out the high-level cost estimates provided by stakeholders.

Figure 1: cost categories for provision of Text to Speech (TTS) in next generation set top boxes/TV receivers

	Cost Category	Description
Volume-related costs	Chipset	To support TTS more advanced chipsets are likely to be required. Industry sources told us in 2014 that the premium for suitable chipsets was around 16p. Responses to the 2015 consultation tended to support this assessment. We also understand that for the next generation of TV receivers, chipsets that would be capable of supporting TTS are likely to be used anyway, with or without TTS.

	Memory and processing power	TTS will also require additional memory and processing power. Many next generation TV receivers which are HD-ready will already have sufficient processing power, although some manufacturers noted that new models might need additional memory and/or processing power to cope with the additional functions of TTS.
	Software-based dictionary (used to recognise text and set out pronunciation rules)	A licence fee would be payable to the dictionary provider, which typically depends on the volume of units shipped with dictionaries, with a larger order likely to get a bigger discount. Responses to the 2015 consultation suggested that licence fee would represent a modest increment to the cost of the TV. For example, one confidential respondent [X] provided an estimate of the licence fee of around £0.65 per household.
One-off costs	Speech engine (software capable of rendering text into speech)	To ensure quality, providers would be likely to develop in-house products or source them externally. Speech engines have been available and in use for some years so the basic technology is commoditised.
	Development and testing	Development costs would be incurred in integrating the hardware and software, and in testing the overall solution. However, some of the costs of testing are related to all new features in the set top box, not simply those associated with TTS. The impact assessment included in our 2015 consultation suggested that that the incremental costs of development and testing of this feature would be modest, although some respondents to the 2015 consultation suggested we were underestimating these costs and that they could be significant.

A2.68 In their response to the 2015 consultation, the RNIB noted that they were involved in some of the pioneering work for talking TV equipment. One such project integrated a speech engine with an existing set-top box for around £80k and another project created a talking set top box from scratch for around £300k. These figures do not include the TTS engine licensing costs but also represent the costs of integrating a speech engine without the benefit of an operating system with an accessibility SDK (such as Android TV). Since these were pioneering projects, RNIB considers them to be upper bounds and believes that the

cost of providing an equivalent level of speech to a similar platform will now be much lower.⁷⁰

A2.69 However, this is at the lower end of the high-level cost estimates provided by EPG providers in their responses to the 2015 consultation, which ranged from £500k to over £5m:

- a) [redacted]⁷¹
- b) One confidential respondent [redacted] estimated total costs to be £500k with £350k of this being the development and integration costs;⁷²
- c) Another confidential respondent [redacted] estimated that the costs of development would be £0.6m plus £1.3m in licence fees, and that in addition the software release would cost a further £0.75m while they would also incur internal capital and operating costs of between £1.5m and £2.5m. We estimate that this would imply an upper estimate cost per set-top box of around [redacted].⁷³

A2.70 In addition, one manufacturer noted in their response to the 2015 consultation that such developments are typically not done exclusively for one country and that the remaining European markets and the multiple languages required for those markets should be taken into consideration.

A2.71 Two confidential respondents to the 2017/18 consultation [redacted] provided high-level cost estimates. These are consistent with the estimates set out above:

- a) One confidential respondent [redacted] estimated that it would cost in the region of [redacted] (excluding licence costs for TTS engine and [redacted] to develop, integrate and fully implement TTS into its software.
- b) Another confidential respondent [redacted] noted that costs are difficult to assess given that the work had not been scoped but considered the costs associated to be at least £1m. It also noted that the other factor to assess was the opportunity cost to EPG providers and that while teams work on the accessibility features, other software and features cannot be considered or delivered.

A2.72 We also note that the US Federal Communications Commission have introduced accessibility requirements including making the display of channel and programme information audibly accessible to individuals who are blind or visually impaired.⁷⁴ These requirements may reduce the cost of introducing similar features in the UK.

A2.73 Based on the information provided in response to the 2015 and 2017/18 consultations, we consider that the cost increases faced by manufacturers as a result of including TTS functionality into new TV receivers could be fairly significant, although they may have

⁷⁰ [RNIB](#) response to 2015 Consultation.

⁷¹ [redacted]

⁷² [redacted]

⁷³ [redacted]

⁷⁴ [Read more about the FCC requirements.](#)

fallen slightly since 2015 due to technological developments. However, we expect the majority of the costs to be one-off development costs which are likely to be spread across a large number of TV/STB receivers such that the additional cost per receiver is likely to be fairly modest, and note that the boxes would be expected to last for several years.

Other accessibility features

A2.74 We have also considered the likely cost impact on manufacturers of the incorporation of each of the other accessibility features into TV receivers. We recognise that the incremental cost of introducing each of these features will vary by provider depending on their existing features and the ease with which these features can be integrated into their receivers. This is reflected in the cost estimates provided with different providers estimating that different features would be more expensive for them to implement. We note that many of these accessibility features are widely available already. This suggests both that only a few licensees would need to implement this change and that costs of doing so are not likely to be prohibitive.

High contrast displays

A2.75 Our understanding is that all next generation TV receivers are likely to have the necessary hardware to allow alternative displays and therefore the costs of incorporating this feature should be fairly small. We note that one respondent to the 2015 consultation described the costs as ‘justifiable, though not insignificant’⁷⁵ while a respondent to the 2017/18 consultation described the likely cost as ‘significant’.⁷⁶ Two respondents to the 2015 consultation estimated development costs (excluding integration and other costs) to be around £100k.⁷⁷

Ability to search for / highlight programmes with audio description and signing

A2.76 This feature would make use of existing metadata and mature technology, already used by some EPG providers to allow viewers to search by content characteristic. The processing power required for searches is also likely to be available in next generation TV receivers. Given these factors we consider that the incremental software development costs for those providers who do not currently offer this feature should be relatively small, although some providers estimated that the development costs of this feature could be around £350k.⁷⁸

A2.77 One confidential respondent to the 2017/18 consultation [redacted] estimated that its costs would be around [redacted] in each case to develop software.

Ability to magnify display / enlarge text

⁷⁵ [redacted]

⁷⁶ [redacted]

⁷⁷ [redacted]

⁷⁸ [redacted]

A2.78 The incremental cost of implementing this feature is likely to depend on the existing user interface and the ease with which this feature could be incorporated. We consider that the cost of implementation could be minimised where the feature is deployed as part of a broader set of features. This was the approach taken by Youview.⁷⁹ Cost estimates submitted by providers put the cost of implementing this feature at around £200k.⁸⁰

Ofcom's assessment

A2.79 Whilst our approach to this impact assessment does not include specific cost estimates, our view is that the overall costs of requiring the implementation of each of the accessibility features is unlikely to be disproportionate relative to the likely extent of the benefits. In particular, while the costs are not insignificant, they are mainly one-off up-front costs while we expect the benefits to visually-impaired consumers to accrue over a number of years.

A2.80 We acknowledge the potential for innovation as highlighted by respondents to the consultation, and so have decided to allow EPG providers to introduce 'equally effective' measures. We believe that providers should be able to use innovative methods to increase accessibility and recognise that this may enable the benefits to consumers to be delivered more quickly and at lower cost. However, any such alternative features must be genuinely as effective for consumers as those specified in the amended EPG Code.

Impact on competition

A2.81 As the changes to the EPG Code will apply equally to all EPG providers, we do not expect them to distort competition. While the provision of accessibility features to the visually impaired could be a dimension of competition upon which EPG providers compete, there is no evidence suggesting that this is the case. Furthermore, the changes to the EPG Code do not prevent competitive differentiation taking place between providers on the provision of accessibility features to the visually impaired.

A2.82 We also note that we would expect the amended EPG Code to enhance competition by providing greater choice for disabled consumers.

Ofcom's conclusions

A2.83 Having considered the two options described above, our view is that:

⁷⁹ [Youview's response](#) to the 2015 consultation

⁸⁰ [3<]

- a) Option 1 (doing nothing) would not meet the needs of the visually impaired. The current limited provision of accessibility features on EPGs is restricting visually impaired people's programming and platform choice relative to those without such disabilities. We do not consider that the new accessibility features that we have decided to set out in the EPG Code will be provided in the short-to-medium term without regulation;
- b) Option 2 offers an appropriate means of assisting people with visual impairments to use EPGs for the same purposes as those without visual impairments.

A2.84 There are a number of reasons for this:

- a) we believe that there could be significant benefits to the visually impaired in requiring the visual accessibility features and text to speech of all EPG providers. These benefits would include more social inclusion, greater autonomy and greater choice (of programmes and potentially platform operators). Whilst non-quantifiable in nature, the benefits could be significant given the numbers of people who are currently visually impaired (and likely to become visually impaired in the near future) and the nature of those people (i.e. the visually impaired tend to be older) and would be likely to accrue over a number of years;
- b) the new practice that we have decided to set out in the EPG Code is mainly limited to new TV receivers so would not require any material changes to equipment already designed and in the market. This allows EPG providers and their manufacturing partners the opportunity to integrate accessibility features during the design and testing phases, thereby limiting the potential burden on them. It would mean, for example, that a model of TV receiver that had been designed before the introduction of our changes to the EPG Code could continue to be manufactured and sold until such time as it was updated or replaced;
- c) the amendments apply to all new TV receivers, including basic receivers, ensuring that the benefits will be more quickly available to a wider range of visually impaired consumers, including those on lower incomes – 53% of visually impaired consumers are within socio-economic group C2DE.⁸¹ Given the likely economies of scale, we consider that the incremental cost of including basic receivers in scope will be limited;

⁸¹ [Disabled consumers' use of communication services](#), October 2015, Ofcom

- d) we also consider that the changes to the EPG Code that we have decided to make are unlikely to impose a disproportionate burden on stakeholders. While the costs of TTS are not insignificant, they are mainly one-off up-front costs, while we expect the benefits to visually-impaired consumers to accrue over a number of years. Those who have already incorporated accessibility features in their current EPGs (e.g. high contrast displays) are likely to face little or no incremental cost including them in future EPGs. Those who have not done so are likely to benefit from the fact that each of these features has been included in other consumer equipment, which might suggest that the capabilities have been commoditised, and the underlying technology costs (mostly software-related) may be relatively modest;
- e) we are introducing a new practice for EPG licensees to use ‘reasonable endeavours to secure so far as practicable’ the adoption of the new accessibility features. This new practice would not be as stringent as the ‘best endeavours’ practice that we initially proposed in the 2015 consultation. This should result in the accessibility features being made available to consumers, but prevent any unintended distortions arising in the rare instances where implementing the proposed features would not be practicable. This revised approach would also give EPG licensees a degree of flexibility in developing the features in the most effective way, and would allow us to take account of the fact that, for some EPG providers, implementation may be more complex or involve a lengthier process than for other EPG providers.
- f) we are also allowing providers to introduce ‘equally effective’ features, to allow for the possibility of current and future innovations in technology and user preferences. This will enable the benefits to consumers to be delivered in innovative ways, particularly where the costs of implementing the accessibility features would be disproportionate.

A2.85 We recognise that EPG licensees and TV receiver manufacturers would face some increased costs, for example in testing new features, and that this might lead to higher prices for some TV receivers. However, we would expect these costs and any potential price increases to be relatively small.

A3. Equality Impact Assessment

Introduction

- A3.1 Ofcom is required by statute to assess the potential impact of all our functions, policies, projects and practices on the following equality groups: age, disability, gender, gender reassignment, pregnancy and maternity, race, religion or belief and sexual orientation⁸². We refer to groups of people with these protected characteristics as ‘equality groups’.
- A3.2 We fulfil these obligations by carrying out an Equality Impact Assessment (‘EIA’), which examines the impact our policy is likely to have on people, depending on their personal circumstances. EIAs also assist us in making sure that we are meeting our principal duty of furthering the interests of citizens and consumers, regardless of their background and identity.
- A3.3 We have not considered it necessary to carry out separate EIAs in relation to the additional equality groups in Northern Ireland: political opinion and dependents. This is because we anticipate that our proposals would not have a differential impact in Northern Ireland compared to consumers in general.

Equality impact assessment

- A3.4 We consider that the changes to the EPG Code that we are making will have a positive impact on these equality groups:
- a) people with disabilities;
 - b) people whose age-related conditions may make them vulnerable, who we consider as a sub-category included in the ‘age’ equality group; and
 - c) potentially, people belonging to these or other equality groups to the extent that those people use the proposed accessibility features for reasons other than sight impairments (for example, using TTS technology as a ‘hands-free’ option for convenience).
- A3.5 We consider that all of our amendments to the EPG Code will have a positive impact as above, with the exception of the proposed editorial amendments (references to legislation, amendments for clarity, removal of unnecessary detail) which we anticipate will have a neutral impact on the relevant equality groups.
- A3.6 In particular, we refer to the practice for EPG licensees to use reasonable endeavours to secure so far as practicable that their EPGs include options for users to use all or as many as possible of the following accessibility features (or to introduce accessibility features that would be equally effective): (a) ‘text-to-speech’, (b) ‘filtering or highlighting’, (c) ‘magnification’ and (d) ‘high contrast’ displays (i.e. with a contrast ratio of no less than 7:1)

⁸² As defined in the Equality Act 2010.

- A3.7 As outlined in our consultation document, consultation responses and statement above (see 3.12, 3.14, 3.24) at above, available research suggests that these features will greatly increase the ability of people with a range of sight impairments to:
- a) navigate EPG information without having to rely on elaborate compensatory measures or the assistance of others;
 - b) identify the increasing number of programmes available with audio description for the blind and partially sighted;
 - c) exercise choice between channels and programmes available via the EPG; and
 - d) exercise choice with respect to television services rather than being confined to isolated services which offer a particular feature.
- A3.8 Those with sight impairment tend to be older, and conversely older people are more likely to suffer age-related sight impairment (see 2.7 above). It may also be the case that older consumers have other sensory or motor impairments which hinder the use of a conventional EPG. Hence we believe that our changes will have a positive impact for older people.

Conclusions

- A3.9 We consider that our changes to the EPG Code will have a positive impact on people with disabilities, people whose age-related conditions may make them vulnerable, and potentially also on people belonging to other equality groups.
- A3.10 We do not believe that our changes will have any detrimental impact on any of the relevant equality groups.

A4. Revised EPG Code

- A4.1 The modifications to the EPG Code that we have decided to make are set out below. The words marked in underlined red text and highlighted (e.g. **example**) indicate the insertions and the words marked in strike-through and highlighted (e.g. ~~example~~) indicate the deletions. These modifications will take effect from today **[27 June 2018]**.

Code of practice on electronic programme guides

Introduction

1. This Code sets out the practices to be followed by EPG providers⁸³:
 - a. to give appropriate prominence for public service channels;
 - b. to provide the features and information needed to enable EPGs to be used by people with disabilities affecting their sight or hearing or both; and
 - c. to secure fair and effective competition.

Appropriate prominence

2. Section 310(2) **of the Communications Act 2003 (the 'Act')** requires that Ofcom's EPG code oblige EPG providers to give the degree of prominence that Ofcom considers appropriate to the listing and promotion of public service channels, for members of the intended audience. The Secretary of State may add to, or subtract from, the list of relevant public service broadcasting (PSBs) channels, which comprises the digital versions of BBC services, as well as the digital services of Channels 3, 4 and 5, Teletext and S4C Digital. The Code is also to ensure that members of the intended audience for services provided for a particular area or locality are able use the EPG to select the programmes included in that service.
3. Ofcom considers that 'appropriate prominence' permits a measure of discrimination in favour of PSB channels. However, it does not propose to be prescriptive about what appropriate prominence means, as there are many possible ways in which EPGs could display information about programmes included in PSB services. Accordingly, EPG providers are required to comply with the following general principles:
 - a. EPG providers should ensure that the approach they adopt to the requirement for appropriate prominence is objectively justifiable and should publish a statement setting out their approach;

⁸³ The term 'EPG provider' means any organisation providing an electronic programme guide as defined by section 310 of the Communications Act under a Broadcasting Act licence.

- b. Ofcom will have regard to the interests of citizens and the expectations of consumers in considering whether a particular approach to listings public service channels constitutes appropriate prominence; and
 - c. in giving appropriate prominence to PSB channels, EPGs should enable viewers in a region to select the appropriate regional versions of those channels through the primary listings for those channels provided the PSB in question has secured services that enable this.
4. These principles would have broad application. For example, they would justify a decision by an EPG operator using a menu-based approach to position public service channels no more than 'one click' from the home page. They might also justify giving public service channels first refusal on vacant listings higher in the category that they were placed.

Assistance to people with hearing and/or visual disabilities

5. Section 310(3) **of the Act** requires that Ofcom's EPG code obliges EPG providers to incorporate such features in their EPGs as are appropriate to enable, so far as practicable, people with disabilities affecting their sight or hearing to use the EPGs for the same purposes as people without such disabilities. EPGs are also to provide information about assistance in relation to programmes (e.g. how to navigate radio and television listings, and how to operate television access services such as subtitling, signing and audio description), as well as facilities for making use of that assistance. This section sets out the requirements that EPG providers should meet in order to comply with the Code.

General principles

6. EPG providers are required to:
 - a. make such adjustments to their EPGs as are practicable to secure that they can be used by people with disabilities affecting their sight or hearing for all the same purposes as they are used by other people; and
 - b. promote awareness of the scope of EPGs to provide information about programmes with access services, in conjunction with broadcasters and representatives of people with disabilities affecting their sight or hearing.
7. Ofcom expects **EPG providers** **the needs of people with disabilities affecting their sight or hearing to be an integral part of planning for the future development of EPGs. To this end, Ofcom expects EPG providers** to consult disability groups about the way they meet their obligations under the code, **which are set out below** **and to work with disability groups, broadcasters and set top box manufacturers on ways of improving usability.**

Adjustments to EPGs to facilitate their use by disabled people

8. **At present, there is limited scope to reconfigure EPGs so as to facilitate their use by people with disabilities affecting their sight or hearing. In particular, much of the functionality of EPGs is dependent upon set top box hardware and software, as well as the data made available by broadcasters. However, Ofcom expects the needs of people with disabilities**

affecting their sight or hearing to be an integral part of planning for the future development of EPGs. To this end, Ofcom expects EPG providers to work with disability groups, broadcasters and set top box manufacturers on ways of improving usability.

EPG providers should use reasonable endeavours to secure so far as practicable that their EPGs⁸⁴ include facilities for users to do all or as many as possible of the following, or to introduce accessibility features that would be equally effective:

- a. render text needed for EPG navigation and the provision of information on channels and programmes included in the EPG as speech;
- b. highlight or list separately programmes with audio description, and with signing;
- c. adjust the display of EPG information so that it can be magnified, or the text enlarged; and
- d. select a 'high contrast' display.⁸⁵

9. Ofcom recognises that the process of securing the accessibility features listed in paragraph 8 is likely to include development work and associated expenditure on the part of EPG providers and their manufacturing partners. We also recognise that the timeframe for such development work will depend on international product development cycles. However, given that each accessibility feature has already been provided in some TV receivers, Ofcom would normally expect EPG providers to work with the manufacturers of TV receivers to make all of these accessibility features available in new models of TV receivers beginning development after **27 July 2018** and any subsequent models, unless the associated estimated costs show that the adoption of any specific accessibility feature would be unduly burdensome.

9.10. EPG providers are required to produce by 30 November 2004, and thereafter annually a **an annual** statement, **by 30 November each year**, of the steps they have taken and plan to take to facilitate the use of their EPGs by disabled people, **specifying which steps they have taken to comply with paragraph 8 above**. If an EPG provider has been unable to secure all or any of the objectives set out in paragraph 8 on the grounds of practicability, this annual statement should outline the alternative steps they have taken to increase the accessibility of their EPGs. Ofcom will assess the adequacy of these statements in the light of the particular circumstances of each EPG.

10.11. EPG providers will need to have regard to their obligations under the **Disability Discrimination Act 1995** **Equality Act 2010** to make reasonable adjustments in the provision of facilities and the delivery of services so as to make these accessible to disabled people, and should seek their own advice on this.

Provision of information

⁸⁴ **When accessed on new models of TV receivers beginning development after 27 July 2018 and any subsequent models.**

⁸⁵ **A display with a contrast ratio of no less than 7:1.**

~~11:~~12. EPG providers will be ~~are~~ required to ensure that information included in relation to television programmes indicates which programmes are accompanied by television access services. A corresponding provision has been included in the Code on Television Access Services requiring broadcasters to make such information available to EPG providers. ~~Where practicable, p~~Programme information in the EPG should indicate by means of standard abbreviations the nature of the access service provided. Where applicable, the programme synopsis in the EPG should indicate which programmes are accompanied by television access services, using the following upper-case letters - subtitling (S), signing (SL) and audio description (AD). ~~Where practicable, these abbreviations should be explained in an appropriate part of the EPG.~~ If non-standard terms are used in any part of the EPG, and removal or replacement by the standard abbreviations would require software or hardware updates, this should be done at the next reasonable opportunity.

~~12:~~13. EPG providers should provide on an easily accessible part of their EPGs (where practicable) or alternatively in other accessible ways (e.g. on websites or interactive services) information for people with disabilities on:

- a. how to use the EPG;
- b. how to use the access services accompanying the programmes;
- c. what options exist for customising the appearance of the EPG to make it easier to use; and
- d. what additional sources of help and information are available in other places (e.g. on websites, or from telephone / textphone helplines), whether from the EPG operator, or television service providers.

Promotion of awareness

~~13:~~14. EPG providers are required to work with broadcasters, platform providers and disability groups to publicise the information and facilities available on EPGs to assist disabled people. ~~This should include information targeted at publications used by disabled people, and periodic publicity featured prominently on EPGs.~~

Fair, reasonable and non-discriminatory treatment

~~14:~~15. Ofcom has concluded that, in order to secure that the providers of EPGs licensed by Ofcom do not enter into or maintain any arrangements or engage in any practice that Ofcom considers would be prejudicial to fair and effective competition in the provision of the licensed radio or television services or of connected services as defined in section 316 of the Act, EPG providers should comply with the provisions set out in this section.

~~15:~~16. In particular, EPG licensees are required:

- a. to ensure that any agreement with broadcasters for the provision of an EPG service is made on fair, reasonable and non-discriminatory terms;

- b. to publish and comply with an objectively justifiable method of allocating listings. This does not preclude different methods – for example, objectively justifiable methods could include ‘first come, first served’, alphabetical listings, and those based on audience shares;
- c. to refrain from giving undue prominence in any listing or display to a channel to which they are connected, except as required by the appropriate prominence provisions set out at paragraphs 2 to 4 above;
- d. to carry out periodic reviews of their listing policy and of channel listings made in accordance with that policy, in consultation with channel providers;
- e. to ensure that viewers are able to access all television and radio services included in the EPG service on the same basis, provided that the viewers are equipped to use the EPG service and to receive the relevant programme services;
- f. to ensure that free-to-air services are at least as accessible as pay TV services, and that reception does not require additional equipment or commercial agreements over and above those required for the acquisition of the receiving equipment; and
- g. to refrain from imposing any condition in an agreement for EPG services between an EPG operator and a channel provider specifying exclusivity to one EPG for any service or feature, including the ability to brand services and access to interactivity.

16.17. EPG licensees that are channel providers or are connected to a channel provider must ensure that access to and from all television services included in the EPG service is easily available to all viewers equipped to use the EPG service and to receive the relevant programme services.

Code review

17.18. Ofcom intends to review the Code at intervals of no more than two years, or more frequently if circumstances warrant it. As part of the review, it will consult stakeholders, including EPG providers, broadcasters, and disability groups. The issues it will consider may include whether:

- a. the guidance on appropriate prominence is adequate, or needs to be amended;
- b. provisions on information and facilities need to be changed, having regard to technological and market developments, amongst other things; and
- c. ex ante regulation requiring EPG providers to give channels on their EPGs fair, reasonable and non-discriminatory treatment so as to ensure fair and effective competition remains appropriate.

18.19. Where appropriate, Ofcom will consider whether competition would facilitate the achievements of the objectives in the code, and so obviate or reduce the need for regulation, or whether the promotion of competition requires continuing regulation.