



**BBC response to Ofcom's discussion paper on  
meeting future demand for mobile data**

**April 2022**

## Summary

1. The BBC welcomes the opportunity to contribute to this important debate. We understand the need for effective spectrum management and the competing demands that exist between sectors. We have also responded to Ofcom's discussion paper on its future approach to mobile markets.
2. We believe that ensuring there is a high quality of service and maximum coverage, particularly of 5G, is key for the UK – indeed, it is key for the BBC to ensure that all audiences across the UK are able to access our proposition. We are satisfied that the capacity that exists for the development of mobile services is sufficient to meet those needs currently and in the medium term, and that mid and high-band spectrum is most suitable to meet further demands that arise.
3. Digital terrestrial television (DTT, known in the UK as Freeview) will remain critical for the BBC to deliver our mission and public purposes, as a key requirement for universal access to BBC content and the societal benefits conferred by public service media. There does not have to be an 'either/or' decision between mobile and DTT. The UK's spectrum governance must protect spectrum allocated for DTT and programme making at home, as well as recognising the use of spectrum for delivery of UK objectives outside the UK.
4. Given the large uncertainties about demand for mobile data beyond 2030 (including those set out by Ofcom in its Paper), it is too early to take decisions now on how change spectrum use to accommodate changes in mobile demand.

## Introduction

5. The BBC is the biggest media provider in the UK, used by over 90% of UK adults each week. DTT continues to underpin how audiences access our TV content, used by over 18m homes.
6. We therefore welcome Ofcom's expectation that DTT will need to continue until at least 2030 and likely beyond, and are clear that use of the sub-700 MHz spectrum band well into the 2030s is vitally important for both audiences and programme makers. It is particularly important for older and vulnerable audiences, and we note that research shows that audiences from 'Freeview-only' households (the biggest proportion of all UK homes in 2019) are typically older audiences and those from lower socio-economic backgrounds.<sup>1</sup> DTT is currently a crucial requirement for universal access to BBC content that informs, educates,

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<sup>1</sup> As the Government noted in its 2021 Consultation on the renewal of Digital Terrestrial Television (DTT) multiplex licences, *'There are approximately 11.3 million 'Freeview-only' households in the UK (c40% of all) and this category makes up the biggest proportion of all UK homes. Freeview has a broad audience; however, in 'Freeview-only' households, its audience has traditionally been older and from lower socio-economic backgrounds compared to the audiences using pay platforms.'*

and entertains, ensuring that many people are able to access public service TV who would otherwise not be able to.

7. Today, mobile services are also changing the way that our audiences access content across the breadth of our offer – TV, Radio, and Online. The UK’s spectrum governance must therefore protect spectrum allocated for DTT and programme making, while also ensuring future mobile networks are suitable for the delivery of our services.
8. As set out in our responses to these Ofcom consultations, the BBC’s clear view is that it is possible to both protect DTT and the significant social and economic benefits it brings, and to allow and encourage innovation in mobile and 5G markets.

### **BBC comments on Ofcom’s analysis**

9. Management of the limited resource of spectrum is an increasingly important task given competing demands that exist between sectors. Taking an informed approach, and consulting widely on the issue, is an appropriate way for Ofcom to proceed.
10. In particular, the BBC welcomes Ofcom’s focus on the increasing demands for spectrum by the mobile sector, and its careful examination of evidence to justify allocating more spectrum to mobile services.
11. The BBC notes that the focus of this discussion paper is the UK and there is limited reference and comparison with respect to the rest of the world and the global picture. In the Summary, Ofcom concludes that the specific implications for mobile networks of the growth of mobile data traffic could vary quite substantially. If this comes from a UK perspective, then it can be assumed that globally this variation will be even more significant and substantial.
12. Although Ofcom’s role in managing spectrum use is related to the UK, the BBC does believe that taking a global view of the harmonisation of use between countries can bring benefits to the UK economy. We agree with Ofcom that spectrum use across the world can support the delivery of a wide range of services, including mobile services, and that Ofcom needs to consider spectrum demand from other users and ensure it is used efficiently. The BBC has highlighted in previous consultation responses that, when considering strategic matters, Ofcom should take into account the use of spectrum for delivery of UK objectives outside the UK. In the case of the BBC’s activities as a broadcaster with global reach, for example, we use numerous national and international platforms and are heavily reliant on global distribution via satellite and satellite

communications both in the UK and internationally for newsgathering and other programme contributions.

13. The BBC welcomes Ofcom's finding that most consumer data is delivered by fixed broadband connection and Wi-Fi access. The UK government's Levelling-Up white paper<sup>2</sup> of February 2022 commits to providing 'nationwide gigabit-capable broadband' by 2030, and fixed networks are expected to continue to carry the large majority of data to households and businesses. Nevertheless, there will still be an important role for mobile data provision to users on the move, and for those unable to access fixed data services. As we outline in our response to Ofcom's future approach to mobile markets discussion paper, ensuring there is a high quality of service and maximum coverage, particularly of 5G, is key for the BBC to ensure that all audiences across the UK are able to access our proposition.
14. The BBC also welcomes Ofcom's findings that the mobile industry's current spectrum holdings, along with other spectrum already planned for release, are sufficient to meet demand until at least 2030, but notes that there is substantial uncertainty beyond that period.
15. Given the large uncertainties about demand for mobile data beyond 2030 (see Fig 15 of the discussion paper), it seems too early to be taking decisions now on how to meet that growth. We do recognise that making additional spectrum available is necessarily a slow process, and will inevitably require displacing existing users.
16. However, the information shown in Figure 6 of the discussion paper ('Total average hourly data traffic: shown for the UK over a 10 km grid and for the Liverpool-Manchester corridor over a 1 km grid') has significant implications for the future spectrum most appropriate to meet this demand. Given that the distribution of geographical areas where greatest data growth is expected is extremely heterogenous, it seems to us that mid and high-band spectrum is most suitable to meet those demands, should they arise. The greater bandwidths available in the higher bands, plus the ability to more closely target capacity hot spots, point to finding additional spectrum in those bands as a priority. The use of low-band spectrum to meet these demands would be inefficient.
17. The BBC does, however, expect demand for data in the low bands to grow, driven in part by the move to online/streaming/on-demand consumption of media content on the move, for example in cars in rural areas. To deliver a good user experience across the UK road network will require efficient use of the mobile bands below 1 GHz. The decision to migrate the 900 MHz band from 2G/3G services to 5G, coupled with the release of the 700 MHz band delivers an

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<sup>2</sup> <https://www.gov.uk/government/publications/levelling-up-the-united-kingdom>

effective tripling of sub 1 GHz mobile capacity between 2020 and 2032. We note that the mobile industry has already confirmed that this capacity is not expected to be required before 2032, at the end of its migration programme in the 900 MHz band. There is no evidence for demand of more mobile spectrum below 700 MHz in the timescales covered by this discussion paper.

18. Existing uses of the 600 MHz band, namely digital terrestrial television (DTT) and for content production (PMSE), are acknowledged by Ofcom (para 5.24), and the extension of DTT licences until 2034 is also mentioned. The use of this band by PMSE needs to be emphasised, across content genres from news and current affairs, to live music performance and TV entertainment like Strictly Come Dancing, to special events like royal weddings. The addition of the aeronautical band 960-1164 MHz for PMSE is welcomed by the BBC, but we note that without harmonisation of this band, its usefulness is constrained, and its limited capacity at key hotspots would not make up for the loss of further sub-700 MHz spectrum. Some PMSE services may transition to 5G-based systems, but this is still some time away, and suitable spectrum for those systems (whether public or private networks) still needs to be identified. We would point out that, as well as sharing this band between DTT and PMSE, it has also been allocated for use by White Space (so-called 'TVWS') devices. Technical work by Ofcom at time that TVWS was introduced showed that such use, while possible, would necessarily be limited in extent if interference to DTT and PMSE were to be avoided. Further sharing opportunities in this band in particular would therefore seem to be very limited.
19. The current use of the UHF band for DTT delivers huge quantities of data to UK consumers, in a far more efficient way than mobile networks could ever hope to achieve. Any consumer move away from linear, broadcast TV services may result in a reduction in data delivery.
20. We believe that Ofcom needs to continue to monitor the growth of mobile data, taking into account the changing role of fixed and Wi-Fi networks. As gigabit-capable internet becomes ubiquitous, it is likely that more data will be offloaded to Wi-Fi, so it will be essential to ensure sufficient harmonised spectrum is available for Wi-Fi.