

Arqiva Submission: Ofcom – ‘Ofcom’s future approach to mobile markets’

Submission Information

Name and role: Laurie Patten, Director of Strategy and Regulation

Response on behalf of: Arqiva

Dear Sir/Madam,

We welcome the opportunity to respond to Ofcom’s discussion paper, *Ofcom’s future approach to mobile markets*.

Arqiva is a communications, infrastructure and media services company at the heart of the broadcast and utilities sectors in the UK and abroad, providing critical data, network and communications services. Arqiva operates the digital terrestrial television (DTT) network that delivers Freeview to 98.5 per cent of the UK population and is the only national provider for radio broadcasting.

The broadcast services we deliver across the UK are enabled by the use of spectrum, which is shared with a wide range of services including mobile services. Given the essential role of spectrum for service delivery now and into the future, it is important that spectrum efficiency objectives inform the regulator’s assessment of the success of the mobile market in delivering for UK consumers.

Over the past decade, mobile services have been provided with significant spectrum resources, and capacity will grow with the upgrading of network technologies. There is currently a substantial opportunity for these spectrum resources to be used more efficiently. This should be a priority – inefficient use of spectrum risks impeding on the delivery of other important services reliant on spectrum access. Ofcom should consider how the mobile market can best deliver on this goal in the years ahead.

We are aware of Ofcom’s parallel consultation on its *Mobile networks and spectrum: Meeting future demand for mobile data* discussion paper. Our response to that consultation provides relevant insight and information on the importance of spectrum efficiency to the delivery of essential DTT services, and the risks of regulatory uncertainty. However, the efficient use of spectrum cannot be separated from consideration of how the mobile market will develop in the future. There is a need to build-in thinking of how the mobile operators will work individually and collectively to ensure that current spectrum holdings are used most efficiently, and to ensure this takes place before discussion of further spectrum allocations to the sector.

We welcome the opportunity to further discuss our response to this consultation with Ofcom.

Yours sincerely,



Laurie Patten
Director of Strategy and Regulation
Arqiva

Arqiva’s comments on ‘Ofcom’s future approach to mobile markets’

Ofcom’s discussion paper highlights that the regulator ‘has released significant amounts of spectrum to enable improved mobile services’.¹ There is significant scope for the mobile sector to use spectrum more efficiently.

Over the past 15 years, broadcasting’s spectrum allocation has been reduced by over 40% to provide more spectrum for mobile. Mobile currently has three spectrum bands sub 1 GHz – the 900 MHz, 800 MHz, and 700 MHz bands. Mobile currently uses only 71% of its sub 1 GHz spectrum. While it is allocated spectrum between 694 – 960 MHz (a total of 266 MHz), it uses only 60 MHz in the 700 MHz band, 60 MHz in the 800 MHz band and 70 MHz in the 900 MHz band.

Mobile’s capacity in the sub 1 GHz bands will also increase significantly through to 2035 as new network technologies are rolled out. The announcement by DCMS that 2G and 3G services will be transitioned to 5G by 2033 will mean that mobile’s sub 1 GHz mobile broadband capacity will effectively triple between 2021 and 2033 – with the rollout of the 700 MHz network and the 900 MHz band transitioning from 2G.

Further, there will be a significant increase in mobile’s mid-band broadband spectrum. The mid-band 2G and 3G services using 1800 MHz and 2100 MHz spectrum are also set to migrate to 5G by 2033.² Mobile mid-band spectrum allocated to 4G/5G services further includes 2600 MHz and the new 3.6 GHz band (2021).

As highlighted in Ofcom’s discussion paper, *Mobile networks and spectrum: Meeting future demand for mobile data*, mobile’s current spectrum allocation is expected to be sufficient to meet demand in the longer term, provided operators make full use of their spectrum holdings and invest in suitable infrastructure and upgrading of network technologies. Increasing mobile’s spectrum efficiency should be an immediate priority to ensure that spectrum continues to be available for the wider range of services and technologies that rely on it.

Ofcom should fully explore market mechanisms that may help encourage and support greater spectral efficiency in the mobile market, to enable the maximum value of existing spectrum allocations to be realised. This includes consideration of, for example, how gaps in spectrum use can be avoided, whether the number of guard bands could be reduced, or consideration of how spectrum is currently used as some services are withdrawn (e.g., 2G and 3G).

Additional allocations of spectrum to mobile beyond the current pipeline, including below 1 GHz, would dampen any incentive for the sector to use its spectrum more efficiently. Further, this would have a significant effect on the capacity for other services using spectrum to continue to operate and deliver both social and economic benefits to the UK. As highlighted in Arqiva’s response to Ofcom’s *Mobile networks and spectrum: Meeting future demand for mobile data* discussion paper, any reduction in DTT’s spectrum could have a negative impact on the platform. It would also impact the operation of the ‘Programme-making and special events’ (PMSE) services, which share the UHF band with DTT. PMSE services are relied on by UK venues and productions, including TV, film, sport, theatre, places of worship, schools, live music, newsgathering, political and corporate events, and others.

¹ Ofcom, *Ofcom’s future approach to mobile markets A discussion paper*, 9 February 2022.

² This increase in spectrum will be accompanied by an even greater increase in capacity as mid-band 5G services can take advantage of enhanced MIMO and AAS.

To avoid negative impacts on other spectrum users, the mobile sector should be re-planning spectrum it already has allocated to maximise its use and demonstrate that it is using spectrum efficiently before the regulator undertakes further consideration of any additional spectrum allocations.

About Arqiva

Arqiva is at the heart of the broadcast and utilities sectors in the UK and beyond, providing critical communications infrastructure and media services. Arqiva is the only national provider of terrestrial television and radio broadcasting and provides a machine-to-machine connectivity network for smart metering within the utilities sector.

Arqiva’s history can be traced back to 1922 when it broadcast the world’s first national radio service. In 1936 it carried the BBC’s first television broadcast. In 1978 it enabled Europe’s first satellite TV test. By the 1990s Arqiva was working with the UK’s mobile operators to bring mobile telecommunications to UK businesses and consumers. In this decade we also launched the UK’s national DAB radio and Digital Terrestrial Television networks. Most recently, Arqiva has played a pioneering role in the roll-out of the national smart energy and water metering networks.

Arqiva was a founder member of Digital UK (DUK), Freeview, YouView and Digital Radio UK (DRUK). Freeview is the largest TV platform in the UK delivering over 100 TV and Radio channels to the UK public. Arqiva owns and operates the networks for all of the Freeview multiplex licence holders and is the licence holder for two of the national DTT multiplexes as well as the DVB-T2 multiplex Com 7. DRUK works to promote digital radio via liaison with the UK supply chain, business-to-business and consumer marketing. We are also a member of WorldDAB.

We are a shareholder and operator for both commercial national DAB radio multiplexes and transmission provider for the BBC national DAB radio multiplex. We also provide end-to-end transmission services for analogue and digital radio networks for customers including BBC, Global Radio, Bauer Media and Wireless as well as other independent radio groups.

Through our wholly owned subsidiaries, Now Digital Ltd and Now Digital (Southern) Ltd, and our joint ventures Now Digital (East Midlands) and South West Digital Radio, Arqiva operates 25 local DAB digital radio multiplexes. These multiplexes cover a number of regions of the UK, predominantly in the Midlands, South West and the south of England.

Our major customers include the BBC, Bauer Media, Global Radio, Wireless, ITV, Channel 4, Five, Sky, UKTV, AMC, QVC, and Al Jazeera Networks.

Arqiva is owned by a consortium of infrastructure investors and has its headquarters in Hampshire, with major UK offices in London, Buckinghamshire and Yorkshire and operational centres in the West Midlands and Scotland.