BRITISH ENTERTAINMENT INDUSTRY RADIO GROUP

Mobile networks and spectrum: Meeting future demand for mobile data

April 2022

Introduction

BEIRG has worked successfully with Ofcom in recent years finalising the details of the 700 MHz Funding Scheme and helping to ensure its smooth operation. We have been encouraged by the development of a strong working relationship in which Ofcom have previously listened to the concerns of the PMSE community and in many cases acted upon them.

However, as plans for spectrum sharing are progressed, it is essential that Ofcom understands that PMSE cannot share spectrum with everyone and anyone. We have demonstrated in the past that, as an industry, we are good sharers where it is possible and work well with manufacturers whose products have become considerably more spectrally efficient. There are, however, limits. PMSE represents a wide gamut of technology and application, from large scale sporting and cultural events to services of worships and events at schools and village halls. Despite not always being visible, it is **vital,** and as Ofcom devises a way to meet the increasing demand for greater spectrum access for the mobile sector this must always be a factor in the decision-making process.

600 MHz Band

Section 5.24 states: "In Europe the mobile industry is focusing on two bands, each under consideration for identification as spectrum bands for mobile communication services either globally or regionally (i.e. for Europe, the Middle East and Africa) at the 2023 World Radiocommunication Conference (WRC-23):

• The '600 MHz band' is being promoted by some in the mobile industry as a means to improve coverage in rural areas due to the characteristics of radio signals, which travel for longer distances at these frequencies compared to mid and higher frequency bands. It is also being suggested that this band could help with deep indoor coverage. However, the quantum of spectrum here would be limited. The 600 MHz band sits within the 470–694 MHz frequency range currently used for digital terrestrial television (DTT) to deliver Freeview services to millions of UK homes, and for use by PMSE and White Space devices. The UK Government has put in place legislation to enable Freeview licence extensions until 2034, subject to a break clause in 2030. Ofcom maintains that there is a need for DTT to continue until at least 2030 and probably beyond, in the UK."

If PMSE continues to only be permitted access to the UHF bands as a secondary service to broadcasting then there is a real danger that if DTT goes from the band in 2030 then PMSE sector will also lose access to the 600MHz band. That would leave only 470MHz to 600MHz, which while interleaved with DTT, is insufficient for our use. It should be borne in mind that, PMSE has access to nearly 50% less spectrum than it did 10 years ago, and has had to adapt to continue to provide a high level of service to the ever-growing creative industries sector. Although Ofcom is acknowledging the presence of PMSE in the 600 MHz band, it would appear that it is currently only the protection of DTT that is preventing it being from cleared and sold. Not only is this unacceptable for an industry that has continued to adapt and evolve to respond to customer demands with less spectrum, but it gives little security to a sector that has experienced immense upheaval with moves from 2 bands of spectrum within a relatively short period of time.

Ofcom claims that the "the '600 MHz band' is being promoted by some in the mobile industry as a means to improve coverage in rural areas". This is the same argument that has been used regarding 700MHz and 800MHz before that.

BEIRG questions how much the 700MHz band actually increased rural coverage in the UK, and would access to the 600MHz band make any difference. Ofcom says the actual "quantum" of spectrum or bandwidth which the 600MHz band would add to mobile services is tiny especially in percentage terms, but it is a very high percentage of the remaining spectrum available for audio PMSE. Thus, handing 600 MHz to Mobile Network Operators (MNOs) would make little material difference to them, but will have a huge impact on PMSE's ability to deliver high quality content.

BEIRG would oppose any further sale of any part of the UHF band IV/V to the MNOs. Geographical sharing might be touted as an option until such times as the MNO is actually using the band in a particular location, but in practice, this will not work – we cannot only have access to spectrum in cities for example if MNOs use the band to extend rural coverage. In addition, because deep indoor coverage is also being considered that would render the band useless in towns and cities for PMSE.

If regulators wish to sell off further bands to MNOs, then dedicated PMSE spectrum must be identified and protected from further erosion.

Conclusion

BEIRG urges Ofcom to look holistically at all spectrum usage when considering how to grant Mobile Network Operators additional spectrum to aid extending the rural network offering. PMSE is an essential tool in all live events as well as TV, film, sport and corporate events. Without support from Ofcom, PMSE will be further challenged to provide high quality content in ever-decreasing spectrum and there will come a time when this is simply impossible to accomplish.

British Entertainment Industry Radio Group

The British Entertainment Industry Radio Group (BEIRG) is an independent, not-for-profit organisation that works for the benefit of all those who produce, distribute and ultimately consume content made using radio spectrum in the UK. Venues and productions that depend on radio spectrum include TV, film, sport, theatre, churches, schools, live music (including music festivals), newsgathering, political and corporate events, and many others. BEIRG campaigns for the maintenance of 'Programme Making and Special Events' (PMSE) access to sufficient quantity of interference-free spectrum for use by wireless production tools such as wireless microphones and wireless in-ear monitor (IEM) systems.

As well as being vital in producing live content, wireless audio PMSE technologies play a key role in helping to improve security and safety levels within the entertainment industry and other sectors. Their benefits include improving the management of electrical safety, the reduction of noise levels, the development of safety in communications and reducing trip hazards as well as providing an essential tool for the security orientated services. Wireless equipment and the spectrum it operates in are now crucial to the British entertainment industry.

BEIRG is a member of the Association of Professional Wireless Production Technologies (APWPT)[1], which promotes on an international level the efficient and demand-driven provision and use of production frequencies for professional event productions, as well as safeguarding such production frequencies for the users on the long run.

[1] http://www.apwpt.org/