Your response

Question	Your response
Section 3 –Spectrum use by the PMSE sector in the UK **Question 1**: What are your views on how our processes work - for example our online booking system, turna-round times, and event coordination. Do you think the current approach works well? How could we improve it?	Confidential? – N Process is generally good
Section 4 – PMSE historic trends **Question 2**: Do you have any comments on how we have analysed and characterised wireless microphone and IEM demand, or suggestions for alternative ways of characterising this demand?	Confidential? – Y / N
Question 3: Do you have any comments on how we have analysed and characterised wireless video demand, or suggestions for alternative ways of characterising wireless video demand?	Confidential? – Y / N

Question	Your response
## Section 5 – Future trends and opportunities ## Wireless audio ### Drivers of demand **Question 4:** What factors have driven changes in the demand for audio PMSE applications, specifically for: a) the increased use of coordinated wireless microphones and IEMs, particularly the peak number of simultaneous assignments used at the largest events? b) the slight decline in the number of national wireless microphone licences (UHF channel 38 and VHF)? Has the extent of use of these licences changed, and if so why? c) the declines in talkback, fixed audio links and ADS licences?	Confidential? – N a) the demand for radio mics in the corporate conference and exhibition areas is growing with no sign of reducing. I am Head of Sound for CiscoLive EMEA, which will be coming to Excel in 2027. The event recently finished had in excess of 500 frequencies across the RAI in Amsterdam and even so we were putting time constraints on users c) Riedel Bolero systems for talkback
Question 5: What factors could drive further changes in the demand for audio PMSE applications in the future, and what will this mean for future demand, specifically for: a) coordinated wireless microphones and IEMs, particularly the peak number of simultaneous assignments used at the largest events? b) national wireless microphone licences (UHF channel 38 and VHF)?	Confidential? – N a) The use of radio mics has become the standard in corporate events, fixed/wired mics have become merely a back-up and even that is often rejected due to the visuals. Even a small conference will now use 10-12. Larger events will now regularly use 100 frequencies. IEMs are also more common, used as IFB for hosts as events become more sophisticated. As noted already, CiscoLive uses over 500 frequencies. b) I will typically avoid Ch38 because of over use, it cannot be relied upon.

Question	Your response
c) talkback, fixed audio links and ADS licences?	c) Wireless Talkback is becoming ever more prevalent. This trend is also becoming the norm in corporate.
Question 6: Do you agree that, given the trends, we are right to focus on wireless microphones/IEMs?	Confidential? – N Yes. Failure to guarantee RF spectrum will result in corporate events moving into Europe.
Changes in the take-up of bands already available **Question 7:** What factors have driven the take-up of different bands for wireless audio? What are the barriers to greater use of the DME band?	Confidential? – Y / N
Question 8: What actions could enable greater take-up of the DME, DECT and licence exempt bands in the future?	Confidential? – N DECT has many advantages, but take up by equipmemt suppliers is low. One big worry is that, as far as I am aware, insufficient provision has been made by manufacturers to allow users to be aware when DECT is becoming overloaded by users. Licence exempt is not for professional use, too many users assuming it's fine.
Changes in spectrum availability **Question 9:** Which potential additional bands might be suitable for wireless audio applications, particularly microphones and IEMs at the largest events and venues?	Confidential? – Y / N
Question 10: To what extent do the characteristics of different audio applications drive their requirements for spectrum – for example particular requirements for latency, resilience or capacity?	Confidential? – N Resilience, if it falls over it's worthless. Capacity, I now refuse to allow any analogue systems on the larger events because of the impact on capacity.

Question	Your response
Changes in efficiency of spectrum use **Question 11:** What changes in spectrum use (technology, working practices, different bands, etc) have enabled audio wireless growth to be accommodated to date, particularly the increased use of wireless microphones and IEMs at the largest events and venues in the context of reduced UHF spectrum availability?	Confidential? – N Dedicated RF technicians are now a must have. High quality RF measuring equipment and co-ordination software make thigs much more reliable. On CiscoLive we now have a network of RF measuring devices around the site
Question 12: What technologies are currently available or are being developed which can improve audio spectrum efficiency in the future, particularly in the use of wireless microphones and IEMs at the largest events and venues?	Confidential? – Y / N
Question 13: Are there any barriers to adopting more efficient technologies for audio applications, particularly for wireless microphones and IEMs at the largest events and venues? What could industry do and what could Ofcom do to facilitate greater use of those technologies?	Confidential? – N I doubt this is the correct place to put this comment, but the amount of poor quality Lighting and Video equipment is growing. The spurious RF emissions from supposedly pro equipment is a big issue.
Question 14: What changes to working practices and spectrum planning could improve audio spectrum efficiency in the future, particularly in the use of wireless microphones and IEMs at the largest events and venues?	Confidential? – Y / N
Question 15: Are there any barriers to adopting working practices that could enable more efficient use of spectrum by audio applications, particularly for wireless microphones and IEMs at the largest events and venues? What could industry do and what could	Confidential? – Y / N

Question	Your response
Ofcom do to facilitate those efficiencies?	
## Wireless video ### Drivers of demand **Question 16:** What factors (such as more complex events and use of higher resolution equipment) have driven the demand for wireless video bandwidth, in particular for: a) the increased bandwidth required for the largest sporting events such as Formula 1 at Silverstone and The Open Championship? b) the bandwidth required for nationally important state events such as The Coronation? c) the slow growth or decline in bandwidth used at horse racing fixtures?	Confidential? – Y / N
Question 17: What factors could drive further changes in the demand for wireless video bandwidth in the future, and what will this mean for future demand, in particular for: a) the bandwidth required for the largest sporting events like Formula 1 at Silverstone and The Open Championship? b) the bandwidth required for nationally important state events such as The Coronation?	Confidential? – Y / N

Question	Your response
c) the bandwidth used at horse racing fixtures and other major sporting events?	
Potential news bands **Question 18:** What factors have influenced the degree of take-up of existing bands used by wireless video applications, particularly the growth in take-up of the 7 GHz band?	Confidential? – Y / N
Question 19: Which potential additional bands might be suitable for video PMSE applications, particularly at the largest events and venues?	Confidential? – Y / N
Question 20: To what extent do the characteristics of different video applications drive their requirements for spectrum – for example particular requirements for resilience or capacity?	Confidential? – Y / N
Changes in efficiency of spectrum use **Question 21:** What technologies are currently available or are being developed which can improve wireless video spectrum efficiency in the future?	Confidential? – Y / N
Question 22: Are there any barriers to adopting more efficient technologies for wireless video? What could industry do and what could Ofcom do to facilitate greater use of those technologies?	Confidential? – Y / N
Question 23: What types of video demand could realistically be supported by private (for example 5G) networks?	Confidential? – Y / N

Question	Your response
Question 24: What changes to working practices and spectrum planning could improve video spectrum efficiency in the future, particularly in the use of wireless microphones and IEMs at the largest events and venues?	Confidential? – Y / N
Question 25: Are there any barriers to adopting working practices that could enable more efficient use of spectrum by wireless video? What could industry do and what could Ofcom do to facilitate those efficiencies?	Confidential? – N This may be my personal prejudice, but my experience of video users is such that I find them to be dismissive of understanding RF spectrum and particularly in sharing it with other users
Other comments **Question 26:** Do you have any other comments or views on the issues raised in this document?	Confidential? – Y / N

Please tell us how you came across about this consultation.

- ☐ Email from Ofcom
- ☐ Saw it on social media
- ☐ Found it on Ofcom's website
- ☐ Found it on another website
- ☐ Heard about it on TV or radio
- ☐ Read about it in a newspaper or magazine
- ☐ Heard about it at an event
- x Somebody told me or shared it with me
- ☐ Other (please specify)

Please complete this form in full and return to liz.hall@ofcom.org.uk.