

Ofcom Consultation

British Entertainment Industry Radio Group (BEIRG)

Annual Plan 2014/15: Invitation to Comment - Response

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British Entertainment Industry Radio Group Response

Executive Summary

The British Entertainment Industry Radio Group (BEIRG) believes that it is critical that the Programme Making and Special Events (PMSE) sector is recognised and supported in any future spectrum planning as part of Ofcom's 2014/15 Annual Plan, and in its onward strategy in general.

Demand for spectrum in the UK is extremely high, and growing. Upwards of 90,000 requests for PMSE spectrum access are made to the licensing band manager in the UK each year. Any changes to spectrum allocation which affect the ability of these industries to operate risks diminishing PMSE's offering to consumers and its ability to contribute to the British economy.

BEIRG believes that Ofcom has a responsibility to the PMSE industry to ensure that it does not suffer interference or clearance as a consequence of any new mobile services. We therefore welcome the identification of the PMSE sector's spectrum requirements as a major work area within Ofcom's Annual Plan for 2014/15. It is BEIRG's hope that this will help to ensure that the sector will be best protected for the future.

- Ofcom must ensure that its proposed spectrum planning model fully recognises and supports the requirements of PMSE;
- Incumbent users of spectrum, especially PMSE, which has no alternative spectrum to move to in order to meet demand, must be favoured over new services as part of Ofcom's intentions to secure optimal use of spectrum;
- As part of Ofcom's plan to secure optimal use of spectrum, BEIRG believes that telecommunications companies must be encouraged to farm their already held spectrum more effectively, to help reduce demand for spectrum. We are disappointed that there is no mention of this approach in the Draft Annual Plan 2014/15;
- Existing spectrum used by PMSE must be protected and the industry should be further supported through an allocation of a permanent home of at least 96 MHz for PMSE, free from shared use with white space devices (WSDs);
- Alternative bands for long-term use by PMSE should be identified;
- Any future changes to spectrum allocation which will affect the ability of PMSE to operate risks diminishing its contribution to society, and will reduce its capability to provide a range of benefits to consumers. This includes coexistence with WSDs in spectrum bands used currently by PMSE, which are already heavily used;
- If PMSE is moved once more, such as through a potential release of 700 MHz for so called 'harmonised' mobile use, Ofcom needs to take into account the cost of PMSE equipment that will be lost as part of future clearances under a new spectrum management plan within its Annual Plan. An associated compensation scheme needs to be designed to alleviate this;
- There remains a need to investigate further the potential effect that WSDs have on interference levels amongst other users, to take into account as part of future spectrum

- management and planning. This should be acknowledged in Ofcom's Annual Plan. PMSE use of spectrum is widespread and varied, therefore thorough real-life testing must be facilitated;
- Until this is achieved further WSDs should not be introduced to spectrum shared with PMSE; and
 - We are disappointed by the language used by the consultation regarding WSDs, specifically the priority to "Enable the use of white space devices". Ofcom's priority should be to investigate if the introduction of WSDs is feasible, not to enable their use based on the assumption that it is already.

PMSE and Spectrum Planning

Ofcom's future planning models, including its Annual Plan for 2014/15 must fully recognise and support the requirements of PMSE, to help secure optimal use of spectrum.

In the UK the creative industries are currently responsible for 1.7 million jobs, and contribute £71.4 billion annually to the UK economy¹. Upwards of 90,000 requests for PMSE spectrum access are made to the licensing band manager in the UK each year.

While PMSE is growing in size and importance, the access to spectrum which is the life blood of its operations has been steadily eroded over time. It is essential for Ofcom to recognise in its Annual Plan that any interference to PMSE usage poses a serious risk to the revenue generation of this sector. As interference affects PMSE content production at its live source, industry users will be directly affected and face a huge potential loss of earnings, uninsurable liabilities and erosion of consumer reputation as content values are damaged.

BEIRG recognises that mobile broadband and other services may bring benefits to consumers in the future, and also recognises the ever-increasing demand for spectrum across different industries. However, the introduction of new services (for mobile broadband, white space devices, or otherwise) in UHF spectrum must not result in the exclusion of PMSE from a sufficient quantity and quality of securely sourced spectrum.

We therefore call upon Ofcom to include in its Annual Plan 2014/15, as part of its priority to 'Secure optimal use of spectrum', the identification of a secure, long term home for PMSE. Alternatively we would welcome the major work area entitled 'Continue to review the spectrum requirements of the programme making and special events (PMSE) sector' being amended to include 'and identify an appropriate long term home for PMSE'.

To ensure guaranteed PMSE operation without interference, BEIRG would advise allocating a least 96 MHz to PMSE, free from shared use with WSDs, as protection from any future clearances. This would

¹ [Department for Culture, Media and Sport, *Creative Industries Economic Estimate* \(14 January 2014\) \(available at: \[https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/271008/Creative_Industries_Economic_Estimates_-_January_2014.pdf\]\(https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/271008/Creative_Industries_Economic_Estimates_-_January_2014.pdf\)\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/271008/Creative_Industries_Economic_Estimates_-_January_2014.pdf)

require a minimum of two 8 MHz guard bands to ensure a guaranteed level of quality and non-interference.

Our industry must have stability in its access to spectrum, and the continuing uncertainty over what will be needed in future is impacting on both equipment sales and business. To ensure secure investment and growth in PMSE and the related creative industries, BEIRG calls on Ofcom to plan to provide more long-term certainty to our sector, by identifying a permanent spectral home for PMSE.

700 MHz

BEIRG is deeply disappointed that the clearance of the 700 MHz band has been designated as a priority in the draft Annual Plan 2014/15. We are equally disappointed that in the section of the consultation discussing this issue, the use of the 700 MHz band by the PMSE sector warrants just eight words; it is as if the sector is merely an afterthought.

BEIRG does not accept that there is a need for the 700 MHz band to be cleared of existing incumbents. No formal decisions were reached at WRC-12 with regard to the future of UHF Bands IV and V, and BEIRG does not believe that further widespread spectrum clearances should be undertaken.

Instead, we believe that it is important that mobile companies make better use of their existing spectrum resources for mobile broadband before being assigned any new bands. Given the large quantity of spectrum available to mobile services, and the limited access which PMSE already has, no decision should be made on 700 MHz until mobile services can be proved to be making the most efficient use of all of their currently available spectrum. It should be possible for mobile companies to ensure adequate mobile broadband coverage with the level of spectrum access that they currently enjoy. It is notable that mobile companies constantly promise to use new allocations of spectrum to provide or improve rural mobile telephone coverage, yet when this spectrum is granted it is always major cities that benefit.

Not only is the release of the 700 MHz band unnecessary, but any change to spectrum allocation with such short notice (by 2018) would cause a major upheaval for PMSE and the wider broadcast industries. A change will require members of the PMSE sector that currently operate in this band to be forced to replace their equipment, as it will be rendered obsolete by the clearance. Users will require sufficient lead-in time to make such changes. Many of these members have already been forced to purchase new equipment as a result of the DSO and the 800 MHz band clearance. To expect the industry to do so again so soon is unfair, unworkable and financially unviable. Given the situation at the time, many professional PMSE operators bought 700 MHz compatible equipment to replace their perfectly serviceable 800MHz equipment, rendered redundant only by the clearance of the spectrum – equipment that is now at risk of being rendered redundant again, well ahead of its expected life span.

If 700 MHz is to be repurposed, a formal compensation scheme would be essential. 80% of recent professional equipment sales have been in the 700 MHz band. Being able to use new equipment, with a fifteen to twenty year life span, for only six years before new purchases must be made as a result of spectrum clearance, is unacceptable to the PMSE sector. Our industry cannot afford this uncertainty,

and faces declining sales and a lack of confidence as a result. To be truly effective, and to ensure future continuity of PMSE services, any compensation scheme needs to take into account alternative frequency band allocations that can be dedicated to PMSE in the longer term.

Whilst we recognise that the potential clearance of 700 MHz is influenced by an ‘international process’, we note that this same imperative does not appear to work in the reverse scenario. Despite European countries, including Germany, having rejected the introduction of WSDs, Ofcom appear wedded to the idea of their introduction. Ofcom should in fact be actively working to protect PMSE on the international stage. Many events abroad, including the Sochi Olympics currently taking place, rely on British PMSE expertise. Rental companies and technical staff for events all over the world, particularly in Europe, are British and much of the equipment is supplied from the UK. Many live music tours originate in the UK even if the UK may not necessarily have the majority of dates on the tour. Ofcom’s PMSE policy should be designed to protect this economic advantage and the benefits it accrues for UK Plc.

It should also be noted that the UK’s ability to deliver large scale events, such as the Glasgow Commonwealth Games, are put at risk by policies which condense PMSE users into ever smaller quantity and ever decreasing quality of spectrum. Clearance of 700 MHz would be another of those policies, despite delivery of spectrum for the Games being a priority in Ofcom’s Annual Plan 2014/15.

White Space Devices

As BEIRG made clear in our response to the recent consultation on “TV White Spaces: Approach to coexistence”, we continue to hold severe concerns about the introduction of WSDs. We are therefore extremely disappointed to note that a priority in the Draft Annual Plan is to “enable” their use, rather than to investigate if their introduction is feasible. The use of this term would suggest that it is Ofcom’s intention to introduce the devices regardless of the outcome of current and pending testing. We also note that Ofcom has highlighted as a major work area, “Work to understand the use of machine to machine technology”. BEIRG holds similar concerns about the planned introduction of M2M technology into TV white space as an element of Ofcom’s attempts to launch WSDs into UHF spectrum.

We also object to the statement that the current testing programme is designed to enable Ofcom to check that the current approach “to allowing access to TV white spaces will ensure a low probability of harmful interference”. For the PMSE sector, any interference is harmful, and any probability of it occurring is unacceptable.

BEIRG welcomes additional trials to fully understand the implications of allowing unlicensed WSDs to operate and the effect that this would have on other spectrum users, particularly PMSE. By allowing the deployment of White Space Devices into UHF spectrum, an environment will develop that permits increasing and more frequent levels of interference to affect existing users of UHF spectrum. Allowing more RF energy to radiate in the band will, inevitably, impact negatively on existing spectrum users. BEIRG therefore urges an extremely cautious approach to the deployment of WSDs and the introduction of shared access in Ofcom’s Annual Plan for 2014/15. If demand for PMSE or DTT exists, it

must always take precedence and be served before WSDs or other proposed shared user requirements, in a similar fashion to the management necessitated by the London 2012 Olympics.

The perceived audio quality of a production is the bedrock of any content. As such, in any production uninterrupted audio is absolutely critical. It follows that any interference experienced that causes a wireless audio failure has severe consequences for both the production and the audience alike. Just one incident of problems being encountered by PMSE users as a consequence of WSDs, such as the cancellation of a single performance of a major West End production due to excessive interference, will have large repercussions. BEIRG urges Ofcom to clearly define the term 'harmful interference' in relation to its use in its Annual Plan and other forward planning documentation associated with PMSE. This definition must include allocations of specific dB numbers to interference levels, taking into account the noise floor, determining what level of interference is too great, and then adhering to this defined level throughout its testing and in any future implementation of WSDs.

BEIRG is also concerned about the very large costs that the presence of WSD interference could entail, and who would be liable for these costs in the event of disruption to PMSE as a consequence of WSD operation. Potential interference also has significant implications for venues such as theatres, studios, arenas, stadiums and other venues being able to secure insurance for their productions. A failure to obtain insurance will inevitably result in a show not going ahead.

Future Industry Engagement

BEIRG has warmly welcomed Ofcom's recent efforts to properly engage with the PMSE industry through high level meetings. This is a process which must continue so that Ofcom is fully aware of the potential impacts that changes to spectrum planning could have. BEIRG will continue to liaise with Ofcom and clarify the current extent and potential impacts on the PMSE industry as part of its future stakeholder engagement.

Making use of industry knowledge and experience is the best way for Ofcom to ensure it is operating in its best interests and will guarantee optimal spectrum use for the future.

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, 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 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), 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.