

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, including shared access, which affect the ability of these industries to operate, risk 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 future of PMSE use of spectrum as a proposed priority area within Ofcom's spectrum management strategy over the next ten years. We call on Ofcom to ensure work on this priority commences as part of its Annual Plan for 2014/15, to ensure 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 Ofcom's intentions to secure optimal use of spectrum.
- As part of Ofcom's plan to secure the 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.
- Existing spectrum used by PMSE must be protected in the future, 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), as protection from any future clearances.
- Alternative bands for long-term use by PMSE should be identified, potentially within the spectrum marked for clearance by the MOD.
- 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 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. An associated compensation scheme needs to be designed to alleviate this, in the event that another reallocation occurs.

- 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. 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.
- BEIRG welcomes the reintroduction of the Technical Working Group concerned with the impact of WSDs on incumbent spectrum users, and calls on Ofcom to carefully regard its discussions and recommendations. Without continued, careful engagement with industry, Ofcom cannot guarantee that it is operating in its best interests.

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 1.5 million jobs, and contribute £36 billion annually to the UK economy. 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 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 and consumer reputation.

BEIRG does recognise that mobile broadband and other services may bring some 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 welcome Ofcom's recognition of PMSE as a priority area in its spectrum management strategy over the next ten years as a step in the right direction. It is imperative that Ofcom follows through with this, by laying the groundwork for future PMSE protection in its annual plan for 2014/15, to ensure future security for this vital industry.

Ofcom must plan for the long term across all industry sectors. Under a new spectrum planning model, incumbent users of this spectrum, including PMSE, which have no alternative spectrum to move to in order to meet demand, should be favoured ahead of new mobile services where alternative spectrum management and refarming can ensure adequate spectrum access for these services.

Whilst BEIRG is supportive of allowing consumers increased access to mobile broadband and new technologies in the future, we do not believe that the only means of delivering this is

through clearing or imposing shared access on existing UK spectrum allocations of vital, high-revenue users such as PMSE. This is not a cost-effective solution. Before rushing to allocate greater volumes of spectrum to mobile network operators to the disadvantage of our industry, Ofcom must ensure it has considered alternative delivery methods and the various opportunities and technologies available to meet the increased demand for mobile services and broadband access. This must include encouraging telecommunications companies to farm their already held spectrum more effectively, to allow for better use of UHF bands, subsequently relieving the pressure on efficient sub-1 GHz spectrum users, such as PMSE.

Ensuring optimal use of spectrum as part of Ofcom's Annual Plan for 2014/15 will depend on the efficient use of UHF bands, while guaranteeing that no incumbent users are adversely affected. Previous decisions to extend mobile broadband spectrum access, rather than supporting the reuse of existing resources, did not encourage sufficient efficiency amongst the mobile telephone industry. Whilst PMSE is an efficient user of spectrum, able to utilise interleaved spectrum and to operate alongside other users such as DTT, mobile telephone technology is not. BEIRG believes that it should be possible for mobile companies to ensure adequate mobile broadband coverage with the level of spectrum access that they currently enjoy. Efforts to re-farm and increase the efficiency of spectrum used for mobile telecommunications instead of further auctions of additional spectrum would be welcomed and encouraged as an alternative to further clearances. Furthermore, WSDs, while recognised as innovative technologies that will benefit consumers, should not be considered for introduction into spectrum used by PMSE. This would take Ofcom's intention to optimise spectrum use too far, and force too much traffic into too few channels.

PMSE Requirements

PMSE access to clean, interference free spectrum is vital. Yet PMSE is at significant risk of interference from new services. Interference of any kind to professional PMSE services is unacceptable, and must be prevented at all cost. High profile live events depend upon PMSE, and can be completely ruined by interference. Ofcom should not consider or plan for any future reduction in PMSE's spectrum access for the sake of increased spectrum availability for mobile operators, nor should it introduce WSDs into spectrum currently used by PMSE if there is any risk of interference.

BEIRG calls on Ofcom to work towards finding a long-term, permanent home for PMSE, as part of its Annual Plan for 2014/15, and onwards. 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 require a minimum of two 8MHz band buffers to ensure a guaranteed level of quality and non-interference. The 1427–1452 MHz spectrum marked for release by the MOD could go some way to securing a long-term solution for PMSE. While this would not be considered a complete solution for PMSE, it would be welcome assistance and a step in the right direction for PMSE support. Ideally, BEIRG would like to see the whole 1427-1525 MHz band opened up fully for use by PMSE, to help meet rising demand from our own sector, and to ensure that high-quality content production can continue. Our industry must have stability in its access to spectrum, and the continuing industry 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.

PMSE has long been a very efficient user of spectrum. Users operate within TV interleaved spectrum (white space) alongside Digital Terrestrial Television (DTT) broadcasters, primarily in 600 MHz and 700 MHz. PMSE utilises these gaps to make as effective and efficient use of this interleaved spectrum as possible. In other parts of spectrum, where radio mics can operate, PMSE users must share spectrum with license exempt devices and find that access can be much more unreliable and of a poorer quality. Interference from TV in the UHF bands is predictable and can be accounted for as part the sharing of interleaved spectrum between PMSE and DTT. As a result, interference is minimised and the maximum possible benefit to users and consumers is obtained. The PMSE industry has operated successfully under this model for many years, where spectrum use is essentially optimised. Ofcom needs to recognise this fact as part of its future planning, both for the 2014/15 Annual Plan and in the longer term. With such a satisfactory system already in place, BEIRG believes that it would be unwise to change it excessively, and certainly not for the purpose of introducing further WSD services.

Potential Impacts on PMSE

The impact of allocating more UHF spectrum to mobile broadband, or introducing WSDs which will raise the noise floor and subsequently cause harmful interference to other users, will be detrimental to PMSE, and far outweigh any benefits to citizens and consumers. PMSE, and the creative industries which rely on it, are a growing sector. Any future changes to spectrum allocation, such as through the possible clearance of 700 MHz, will affect the ability of these industries to operate, risk diminishing their contribution to society and deny a range of benefits to consumers.

Consumers will be faced with the cost of replacing DTT equipment, so soon after the Digital Switchover, to ensure their equipment can still operate. Ofcom must take this into account as part of its future planning. Unlike during Digital Switchover, which brought with it access to Freeview channels and stronger transmission signals in many areas, consumers will not see any marked benefit in paying these costs. Furthermore, Ofcom also needs to consider the potentially massive social and cultural costs to consumers in instances where PMSE is unable to put on shows, concerts and other events as a consequence of spectrum clearance. This cost will be hard to quantify. Spectrum clearance can also cause costs to small organisations, such as schools and churches, who use PMSE on a smaller scale and who will be forced to replace redundant equipment.

PMSE also drives content production; the very same content that mobile broadband is designed to supply. Demand for PMSE spectrum must be assessed in a realistic way before any others are examined. If PMSE does not have sufficient access to spectrum, its capability to produce content will be severely hindered – even to the point where the industry will not be able to supply enough content for consumers to watch, ironically in some cases via broadband access. Content creation comes before content delivery. This fact should not be ignored. The Annual Plan needs to prepare Ofcom to consider carefully the impact of 700

MHz clearance on PMSE in the run up to WRC-15, and to recognise the damage that will be done to incumbent users if clearance goes ahead.

If further clearances were put into place, the PMSE sector would require a formal compensation scheme, similar to that delivered as part of the clearance of 800 MHz. Being allowed only a short few years of use from new equipment, before fresh purchases must be made as a result of spectrum clearance, is not feasible for the sector; the industry typically gets between fifteen and twenty years of use out of professional equipment. Given that many members of the PMSE industry have only recently purchased equipment which operates in the 700 MHz band to replace that which operated in 800 MHz, BEIRG is greatly concerned with the potential financial loss now facing the sector. Ofcom should consider this possibility as part of its 2014/15 Annual Plan.

Ofcom must also be aware of the potential for interference from any new mobile services or WSDs, which could adversely affect PMSE. There remains a need to further investigate the potential effect that WSDs have on interference levels amongst other users and to take this into account as part of future spectrum management and planning. 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 through shared access, 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.

BEIRG urges Ofcom to work to mitigate all interference from WSDs and look to prevent any shared agreement that will impact on PMSE use. Until it can be clearly shown that existing PMSE and broadcast users of spectrum and consumers will be entirely protected from harmful interference or disruption brought about by shared use of TV white space, further WSDs should not be introduced to shared spectrum.

Future Industry Engagement

Constant speculation and consultation continually undermines both the PMSE industry and business. This is economically damaging. Future disruption to the industry, and the spectrum to which it has access, is threatening its ability to continue to produce the world class content which is screened and exported throughout the world. This is in the interest of neither citizens, nor consumers, and BEIRG believes that Ofcom has an on-going responsibility to ensure that the PMSE industry does not suffer interference or clearance as a consequence of any new mobile services. BEIRG would like Ofcom to urgently determine, as part of its Annual Plan, a strategy for the industry which will protect the long-term future of PMSE in the UK, and that will help our sector to invest, grow and support the UK creative industries.

Ofcom must closely engage with the PMSE industry in 2014/15 to take into account fully the extent of any potential impacts that changes to spectrum planning will have. BEIRG will continue to liaise with Ofcom and clarifying the current extent and potential impacts on the PMSE industry as part of its future stakeholder engagement. We welcome the continued engagement Ofcom is affording the industry. As part of this, the reintroduction of the Technical Working Group concerning the impact of WSDs on incumbent UHF spectrum users is welcomed. However, Ofcom must ensure that it carefully takes note of, and acts upon, the Group's on-going discussions and recommendations. 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.