



Response to Ofcom Digital Dividend Review Consultation

Introduction

The Production Services Association represents the companies and individuals that provide the technical infrastructure for live events. Those events range from small conferences to large scale events such as the Glastonbury Festival, Live 8 and Party in the Park. All of these types of events have come to rely on the use of interleaved spectrum in the analogue TV domain for radio microphones and in ear monitoring.

The use of radio microphones in live performance is now ubiquitous and has greatly increased the quality of shows by allowing mobility for performers, better sound reproduction and quicker changeover times for multi-act events. The removal of cables from the performance space also provides a much safer workplace by reducing both trip hazards and the potential for electric shocks (a hazard that has recently caused the death of a performer).

The introduction of in-ear monitoring to the live performance stage in the 80s was perhaps the biggest technological aid to health and safety in our sector. The use of in ear monitors vastly reduces noise levels on stage, reducing the possibility of irreversible hearing damage that can blight the later lives of performers, both famous and not so well-known. The Health and Safety Executive, with whom we work closely, has expressed concern at the possible reduction in use of these devices as a result of spectrum becoming unavailable.

Any threat to the use of these products is a threat to production values, artistic freedom, audience enjoyment and above all, safety. Any price put on the removal of this use is a price on the health of people.

In essence, these wireless devices are far more than a luxury; they are essential tools with far-reaching benefits to users, society and our valuable cultural industry.

We have been careful to make our members and the wider industry aware of Ofcom's proposals for the re-ordering of spectrum using industry press, email and presentations from Ofcom. In this response, we hope to reflect the general opinions and concerns of our part of the PMSE sector.

Consultation Questions

Question 1 – This executive summary sets out Ofcom's proposals for the release of the digital dividend. Do you agree with these proposals?

The general feeling has been disagreement with the proposals that affect the spectrum that we currently rely on. The lack of understanding of the extent of use,

the benefits that this use brings and the wider implications of PMSE use is forgivable as the disparate nature of the PMSE market makes coordinated research all but impossible. This has resulted in an illustration of use that places all PMSE use in channel 69 in the graphical representations of current use between 470-862 MHz. All references to PMSE use within the interleaved spectrum are contained in the text only.

We agree that Channel 69 should be made available for use by low power devices so long as there is still some retained control; the current situation works, complete deregulation will result in no reservation for professional use which requires safe access to useable spectrum. If adjacent channels are sold off, protection must be afforded to low power users in channel 69. We agree that a degree of licence-free use should be available for community, amateur and semi-professional use. By the same token, we feel that sufficient spectrum should be retained for professional PMSE use.

We agree that professional PMSE use should be protected although this should be beyond 2012. Furthermore, a structured, acceptable transition from the channels currently used more by PMSE users needs to be considered. A wholesale switch from the higher frequencies currently used to the digital interleaved spectrum will mean massive reinvestment in new equipment; equipment that cannot be merely 'retuned'. This will also mean a massive dumping of redundant equipment.

An extended period of use in channels below 69 would allow for a smoother technological transition as well as proper analysis of the remaining digital interleaved spectrum, taking into account the availability of channels in certain areas and the mapping of those channels against aerial groups suitable for local TV use. This time would also allow for the investigation of market methods other than an auction, a process that the PMSE users would find impossible to take part in.

Question 2 – Do you have any comments on our analysis of the essential constraints that will apply to the available UHF spectrum?

We agree with the analysis but there are more questions raised by it. The value of digital interleaved spectrum cannot be gauged by local TV providers as there is no information available on regional availability compared with current aerial groups.

Question 3 – Do you agree with the more detailed analysis and proposals regarding these technical constraints as set out in annex 10?

No significant comments were made.

Question 4 – Do you have any comments on Ofcom's assessment of the potential uses of this spectrum? Are there any potential uses which should be considered that are not mentioned in this document?

Only that the uses are generally potential whereas the use by PMSE sector is current and delivering benefits to a vibrant wider industry sector is current and delivering benefits, jobs and a vital contribution.

Question 5: Do you have any comments on our analysis of the choice between market-led and an interventionist approach to the release of this spectrum? Do you agree with the analysis of different mechanisms for intervening to remedy potential market failures?

The analysis may be fine but the bias towards a market led approach is worrying. The notion that PMSE is an industry and could therefore enter an auction is wrong. PMSE users are spread across several sectors; this is why an interventionist approach currently operates. The need for outside coordination of use illustrates the fact that there is no 'internal' ability to coordinate any bid.

A certain amount of deregulated low-power use in channel 69 works but professional users need protected, licensed access to at least part of channel 69 along with further spectrum.

PMSE use spreads beyond channel 69 and continued, protected use in the channels currently used needs to continue to allow continued service to a number of important sectors. A managed transition to protected interleaved spectrum is essential. Further consultation on timing and process is required.

Question 6: Do you agree with our proposals to continue making available channel 69 for use by low power PMSE devices? Do you agree with our proposal to make some or the entire spectrum available for use on a licence-exempt basis?

It is heartening that Ofcom has realised the need for continued 'community' use of licence-free low power use. However, we are concerned that the wider issue of professional PMSE use has not been properly addressed.

Question 7: Do you agree that there should be transitional protection for professional PMSE users to ensure that they can continue to access interleaved capacity until at least the end of 2012? Do you have any views on the mechanism for providing future access to this spectrum?

We agree totally that PMSE users should be afforded transitional protection. It is widely accepted that the lower end of the cleared spectrum will be auctioned and unavailable for PMSE use. What is critical is the transition from the channels most widely used by PMSE users. JFMG have provided accurate figures on use and we believe that the range from channel 65-68 is used most frequently. Simply removing this capability to the digital interleaved spectrum will cause major disruption as equipment will become redundant overnight. A more gradual changeover to digital interleaved channels is required.

A licensing regime through a spectrum manager such as JFMG is the preferred option with a mechanism that drives efficient use and a regime that discourages unlicensed use.

Question 8: Do you consider that additional spectrum from the digital dividend should be reserved for low power applications? If so, please provide as much evidence as possible about the nature of the application and its potential value to society.

Absolutely; additional spectrum needs to be held back for low power devices such as radio microphones and in-ear monitors. Radio microphones play a small but significant part in enabling the UK to be a world leader in live entertainment. The shows we produce in theatres and the spectacular tours that are designed and

launched from these shores are made possible using wireless technology. Add the massive gains in safety from their use; ranging from trivial trip hazards to deadly earth loops and their contribution is immense.

The use of in-ear monitoring is cited in HSE Guidance as a major step towards complying with the Noise at Work regulations that will come into force for Entertainment in 2008. To jeopardise the use of technology that provides such immense safety benefits and reduces the risk of hearing damage would be a serious shot in the foot.

Question 9: Do you consider that it would be desirable to hold back some spectrum from award with a view to its potential use for future innovation? If so, please provide comments on how much spectrum should be held back, and for how long

It would be far more desirable to hold back spectrum so that current PMSE use could be guaranteed a future without being forced out by an auction process in which it cannot compete. A well-managed, realistically priced licensing regime would generate revenue; spectrum lying idle waiting for new technology would not.

Question 10: Do you agree with our proposal that we should package the interleaved spectrum in a way that would be suitable for use by local television services, but not reserve spectrum solely for this use?

While it is agreed that it may be acceptable to package the interleaved spectrum as such, it is more useful to research the suitability of the remaining interleaved spectrum for local TV use, bearing in mind potential for interference from national services, interference from new services in adjacent 'cleared' spectrum, potential viewer figures and aerial groups. This would have the further advantage of giving an idea of the true value of interleaved spectrum and give an indication of what channels could be made available for use by PMSE users that are, as has been shown numerous times, unable to coordinate a bid on the same level as a single service provider.

Question 11: Do you agree with our proposal to package the spectrum in a way which does not preclude mobile broadband use, but to take no further action in relation to this use?

n/a

Question 12: Do you agree with our proposal that we should not intervene in the award of this spectrum to reserve spectrum for DTT? Do you agree that we should package the spectrum in a way which is suitable for DTT use?

We agree that the spectrum should be packaged in a way that is suitable for DTT use. Furthermore, we feel strongly that intervention is required to ensure the future of PMSE use on a licensed basis as the users of PMSE equipment are not one single entity and therefore unable to coordinate a bid.

Question 13: Do you consider that we have included in our analysis the most material risks in relation to market failure?

Whilst there is agreement that Ofcom have included the most material risks, we are concerned that not all of the risks have been included in the conclusions.

It is widely agreed that unlicensed use of at least part of channel 69 is necessary as the disparate nature of the users and the nature of their 'businesses' would make it impossible to enter into, resulting in market failure.

The comparison between this 'community PMSE' use and potential uses by single business entities with both delivery infrastructure capabilities and a complete end product is black and white. What is not so clear is the middle ground; professional PMSE users that are simply delivering a small part of many different types of end product.

We agree that this 'grey area' requires an approach somewhere between auction and unlicensed, free use. The potential for market failure has been accepted addressed in part by the proposal to allow access to the digital interleaved spectrum until 2012. However, this arrangement does not go far enough. The argument for not auctioning channel 69 applies to all other PMSE use. The coordination of a bid is impossible; the auction process favours single entities that will own both the spectrum and the infrastructure and also deliver the end product. PMSE users need the ability to license occasional use of the spectrum, have that use managed by an external body in order to play their part in the delivery of an end product, be it a pop concert, a theatre show, a live TV broadcast or a feature film.

Question 14: Do you agree with our proposal to auction licenses for the use of the available UHF spectrum?

We agree with and accept the argument that Auction can lead to more efficient use of spectrum. However the proposal falls short of suggesting other methods of driving more efficient spectrum use; methods that are more suited to PMSE use. Once again, the 'black and white' of gifting spectrum to the digital multiplexes and radio astronomy as well as ensuring suitable arrangements for aircraft radar contrasted with auctioning of all other available spectrum has a middle ground that has been largely ignored in the proposal. This middle ground is the most suited to PMSE use; reflecting the type of businesses that use the spectrum.

It is unfortunate that part of the cleared spectrum contains the channels most used by our particular part of the PMSE community. This will require careful arrangements for transition to the 'protected until at least 2012' digital interleaved spectrum. We recognise the benefits of the auction mechanism for this part of the spectrum once the PMSE changeover has been completed – only then will it be 'clear'.

The auction process may also be appropriate for PART of the digital interleaved spectrum; we feel that it is not appropriate for the *entire* digital interleaved spectrum. We feel strongly that other market methods should be applied to interleaved spectrum that maintains adequate access around the country. We suggest that those methods are designed to drive efficient use but maintain that auction is not the only way of doing so.

Spectrum access could be awarded to users via an annual licence; a method that is used by Ofcom in other areas. These payments could be direct to Ofcom or via a self-sufficient management organisation.

Question 15: Do you agree with Ofcom's proposals as to the timing of any auction?

If not, what alternative proposal would you make and why, and what evidence and analysis can you provide in support of your alternative proposal?

We agree in part with the timing of the auction of some of the cleared spectrum but, as previously mentioned, the process does not allow sufficient time for a transition from 'cleared' spectrum to digital interleaved spectrum for PMSE users.

The scale of use in channels 67 and 68 necessitates further protection in these channels until at least 2012, reducing the need to retune or, as is more likely, replace existing equipment; both processes made more difficult by legislation governing hazardous substances and waste electrical equipment.

If protection is not afforded, there is the possibility that some users will have to replace equipment in 2008/9 to move to the digital interleaved spectrum without knowing if it will be useable after 2012.

A longer, managed transition would reduce the need for replacing equipment and give PMSE users the opportunity to fully amortize investment.

As we have made clear, it is our conviction that PMSE users are unable to take part in an auction; it is accepted that a move to the less valuable digital interleaved spectrum would be necessary. What is unclear is the availability of the digital interleaved spectrum on a regional basis. With this information,, it would be possible to create a map of PMSE requirements within that spectrum and appraise fully which channels could be freed for auction and which should be retained for licensed pMSE use.

Question 16: Do you have any views on which of the packaging options identified for the cleared spectrum would be most suitable?

No strong views have been expressed.

Question 17: Do you have any views on which of the packaging options identified for the interleaved spectrum would be most suitable?

As mentioned in answer 15, the most suitable packaging solution would be one that mapped out a 'PMSE channel use' and released the remaining spectrum for auction to those able to enter the process.

Question 18: Do you have any views on which of the auction design options would be most suitable?

Without further detail on the full auction design consultation, we are unable to comment fully, suffice to say that, for PMSE users, an auction is impossible.

Question 19: Do you agree with Ofcom's proposals for the non-technical terms of the licences to be awarded for use of the UHF spectrum?

We agree with any obligations to protect PMSE use both until and beyond 2012.

Question 20: Do you agree with the analysis of the options as set out in this Impact Assessment?