

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

We note OFCOM's strong preference (in line with its own spectrum strategy) for a commercial, market-led approach. Whilst we accept this as an appropriate general principle, we would argue that there are certain issues that will require a degree of regulatory control, to ensure the maximisation of societal benefit from the Digital Dividend. We will discuss these issues in more detail in response to specific questions below.

"The consultation document takes great care to explain the many, complex and inter-related factors that must be considered in order to make a balanced appraisal of the issues surrounding the Digital Dividend. It is clear that respondents wishing to make a valuable contribution to this process would need allocate sufficient time to do so. With this in mind we believe the window for receipt of responses should have been significantly longer than the 13 weeks actually allowed in this instance, especially as Christmas and New Year fell during this period. We would urge OFCOM to carefully consider whether they have received sufficient, informed response to this vital consultation, the implications of which will be far reaching and long lasting. If necessary, the consultation should be extended or re-opened to ensure that concerned stakeholders across the UK have every chance to make their views known."

*[note from J Dench: para text inserted 20/3/07 on request from P Kindred email to P Guest on 21/3/07]*

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

**Question 3: Do you agree with the more detailed analysis and proposals regarding these technical constraints as set out in Annex 10?..:**

The LS Telecom report 'Interleaved UHF Spectrum Analysis' identifies 6 transmitters across the UK that will be unable to facilitate local TV coverage using interleaved spectrum. Two of these are in Wales (Wenvoe and Moel y Parc). We recognise that OFCOM accepts the need for a more detailed analysis of this issue and that this is planned. If initial findings are confirmed then these shortcomings should be addressed prior to auction, if at all possible. If this is not possible then coverage limitations must be clearly exposed to potential local TV providers that might wish to bid for spectrum in one of the affected regions, again prior to auction.

**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?..:**

**Question 5: Do you have any comments on our analysis of the choice between a 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?..:**

As stated above, we are concerned that an exclusively market-led approach will leave certain sections of society unacceptably disadvantaged.

Let us consider the availability of broadband services across the UK. The benefits of broadband (directly and as an enabler of other ICT services) have been studied extensively across the world and are generally accepted as being real and significant. With this in mind Devolved Administrations and RDAs have in recent years worked extremely hard to ensure widespread coverage. This has by & large been achieved by the expansion of DSL broadband services delivered over the existing, copper telephone network or, to a lesser extent, via cable broadband. Whilst this has been a genuine success story there remain a significant number of largely rural communities and businesses across the UK that cannot access these services, to the potential detriment of their quality of life and productivity. For commercial and technical reasons it is clear that further expansion of the copper and cable networks to provide ubiquitous coverage is not practical. This is particularly (although by no means exclusively) significant within Wales, where approximately half of the population live in rural areas.

The Welsh Assembly Government maintains a technology neutral approach to the delivery of these services. As such we are aware that wireless/mobile broadband services could represent a viable solution for the communities and businesses still unable to access broadband. Some of the spectrum that will be auctioned off as part of the digital switchover could be used to deliver such services, ensuring a real benefit from the Digital Dividend to these groups. It is important to note that more and more innovative applications requiring a high-speed connection are being developed and adopted by professionals in healthcare (for example, to allow doctors to access medical records or provide remote medicare services at a patient's home), social-care (such as services that allow remote monitoring of the elderly or infirm by carers) and education. The availability of broadcast material over the internet is also increasing, with services being offered which are only available through a broadband connection. Without access to broadband, rural communities will become increasingly disadvantaged as the effective use of such applications becomes the norm elsewhere.

Likewise, access to electronic business services is becoming ever more important. Business of all sizes, in all sectors and regardless of their physical location now have little choice but to compete as part of a globalised, electronic, supply chain. Rural businesses in Wales and elsewhere (which are as likely to be run from a residential premise as they are from a business premise) will continue to struggle as long as vital access to broadband services remains elusive.

We would urge OFCOM to consider the strong case for reserving spectrum for the purpose of delivering broadband services and to note our response to question 11, below.

We also note that calls are already being made to reserve some spectrum for public-sector use. Stakeholders within the public-sector are increasingly concerned that the expansion of unlicensed or lightly licenced wireless networks across the UK will lead

to unavoidable disruption to their services (e.g., wireless connectivity allowing field-workers to access public-sector systems). We believe that OFCOM should look at this issue in detail, to establish whether spectrum should be reserved to underpin delivery of public-sector services.

The fact that certain spectrum might be reserved for a specific purpose would not preclude the option to auction the spectrum for that purpose; the market led approach desired by OFCOM could be maintained, albeit with a degree of appropriate regulatory control. That said, we note and agree with OFCOM's view that the generation of revenue for the Exchequer is not the primary objective of this exercise. We would urge OFCOM to consider factors other than price during the licence allocation process, particularly the wider benefits to society of a specific use of spectrum. We would argue that the highest bid should not routinely be accepted as the winning bid, rather the bid that provides the best value to society as a whole should be favoured. Indeed there may be cases where the justification for an award is so strong in societal benefit terms that a free award of spectrum should be considered.

Taking all of the above into account, we would urge OFCOM to consider whether the use of spectrum released by the Digital Dividend can be separated from the debate about the future role of the Universal Service Obligation. As discussed, we believe that the release of this spectrum could generate significant societal benefits. How will OFCOM ensure that all sections of society, wherever they are located, are able to take advantage of this? In our responses to these questions we discuss various ways in which design of the packages and operation of the auctions could positively affect the outcome, especially for rural areas. However, we would argue that OFCOM should consider whether a revision of the Universal Service Obligation is also required to ensure maximum coverage of services such as broadband in the future.

**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 all of the spectrum available for use on a licence-exempt basis? :**

We agree that this proposal is an appropriate measure to enable community led usage.

**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? :**

The hotel and tourism sectors are vitally important to the economy of Wales, with events such as conferences, live music and theatre etc. being fundamental to the success of these industries. With this in mind we fully support OFCOM's decision to provide transitional protection for professional PMSE users until at least the end of 2012. However, it is important that OFCOM package and run the auctions of interleaved spectrum so as to minimise disruption to existing, professional PMSE users. OFCOM should, as part of this process, consider the impact on existing users of making an award to a specific bidder. This is another area where we believe OFCOM should take factors other than price into account before an award is made.

Additionally we would stress that OFCOM should examine carefully the extent of industry disruption that will, unavoidably, occur. The view that PMSE usage and local TV delivery can co-exist in the interleaved spectrum should also be thoroughly tested, before auction if at all possible. The results of these investigations should inform an early decision from OFCOM about the way forward with regards to protecting professional PMSE use; not just from 2013 onwards (where no strategy currently exists) but possibly earlier if it is proven that local TV provision cannot peacefully co-exist with PMSE usage in the interleaved spectrum.

**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.:**

**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.:**

OFCOM has itself acknowledged the inherent problems associated with trying to predict the future in its consultation document. With this in mind would be difficult, without further, detailed analysis, to quantify exactly how much spectrum should be held back, or for how long. Nevertheless, we do believe that an innovation reserve should be created, to provide the best opportunity for new technologies and new thinking to address existing barriers to adoption of services by certain sections of society. The examples of innovative services that we discussed in our response to question 5 might all be impacted positively by the creation of an innovation reserve, where the reserve could enable the development of improved, perhaps more commercially viable services that could be delivered more flexibly and more cost-effectively. The reserve might also underpin the development of entirely new services, the benefits of which are not qualitatively appreciable at this point in time.

**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?..:**

Yes, although please note our comments in response to questions 3 and 7, above. It is not entirely clear whether OFCOM proposes to limit usage of interleaved spectrum to that related to PMSE and local TV (at least until 2012) or whether bids for other use will be accepted. Some clarification on this would be useful. Additionally, how will regional roll-out of interleaved spectrum usage occur in a manner that will prevent interference? For example, new services in one region may well interfere with existing broadcast services operating on the same frequencies in an adjacent region which has yet to be switched off. Also, despite any prevention of new services being rolled out on the same frequency in adjoining areas, there will still be the possibility that differing services using the same frequencies in adjacent regions will disrupt each other. OFCOM acknowledges this issue in the consultation document but no solution

for avoiding or minimising potential disruption is described. Again, some clarification of the approach OFCOM intends to take to address this issue should be provided.

**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?..:**

We do not agree that spectrum should simply be packaged so as not to preclude mobile broadband use. As an absolute minimum the packages should be designed to actively encourage wireless/mobile broadband usage. However, given the strength of the case for reserving spectrum for wireless/mobile broadband services (as discussed in our response to question 5, above) we are strongly of the opinion that appropriate spectrum should be reserved for wireless/mobile broadband services and that awards should be made on the basis of their value to society, not on the basis of highest financial return for the Exchequer.

Where appropriate the licences to use this reserved spectrum should ideally be awarded on a regional or even sub-regional basis. This would encourage smaller, alternative wireless/mobile broadband providers to bid for spectrum (where it would not be feasible for them to bid for a UK-wide licence), thus allowing specific, known problem areas in a region to be geographically targeted.

**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 spectrum should be packaged so as to be suitable for DTT use. However, we view DTT as one application that may be particularly susceptible to the negative impact of spectrum hoarding and would ask OFCOM to especially note our concerns over this issue, as outlined in our response to question 13 below.

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

As already stated, we believe that rural areas are at the greatest risk of losing out as the result of an entirely market-led approach. Our responses to earlier questions indicate the actions we would advise OFCOM to take to address this issue.

Additionally, it is particularly important to highlight the fact that no provision appears to be made for a 'use it or lose it' clause, to ensure that successful bidders cannot engage in spectrum hoarding in order to stifle competition and promote their own dominance in the marketplace. As OFCOM proposes to auction packets on a UK-wide basis we believe there is a genuine risk that some organisations with significant market power will be tempted to bid for spectrum on this basis. We are particularly concerned that potentially valuable bids to deliver for (for example) wireless/mobile broadband services or enhanced public service broadcasting (high-definition or otherwise) may be negated by spectrum hoarding. The inclusion of a 'use it or lose it'?

clause, coupled with an approach to the auctions which prioritises benefits to society over revenue for the Exchequer, would be effective measures to counter this risk.

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

**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?..:**

Can OFCOM guarantee that the auctions will take place before any regional switch-off is entirely completed (wherever in the UK)? The consultation document makes it clear that licences will be awarded by late 2008/early 2009 at the earliest. If this slips beyond the deadline for switch off to be completed across the early regions (i.e., the Borders, the West Country & Wales), how will spectrum be released for appropriate use as switch-off is completed in these regions? Will the spectrum 'lie fallow' until the auctions are completed, or will current usage remain allowable in these regions in the interim? The consultation document is not entirely clear on this issue, some clarification on this point should be provided by OFCOM.

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

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

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

**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?..:**

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

**Additional comments:**