

Question 4.1: What use, if any, would you make of the top 2x10 MHz of the 800 MHz band in the second half of 2012 if it were available for use? What would be the benefits for citizen and consumers of such availability?:

Primarily mobile broadband; although deployment in 2nd half of 2012 is unlikely due to time taken to roll-out / deploy an 800 MHz network. The benefits are increasing mobile broadband coverage and better in-building penetration. A connected country has a very positive benefit in terms of increased GDP and lower cost of delivery of Government and commercial services. Operators are best positioned to determine highest ROI from its use but citizens and consumers are likely to benefit from lower cost of services and better coverage.

Question 4.2: If we were to offer shared access low-power licences in some way, do you have any comments on the appropriate technical licence conditions which would apply for the different options?:

It is difficult to envisage low-power deployments in either the 800 MHz and / or the 2.6 GHz band(s) unless this was part of an Operators network rollout strategy / plan. Shared access may be difficult to implement however we do support such efforts to accommodate low power systems assisting broadband roll-out and coverage provided there are no detrimental effects for the higher power licensed services. It is important to ensure that interference issues are manageable.

Question 5.1: Do you agree that national wholesalers need a reasonable overall portfolio of spectrum to be credible providers of higher quality data services? In particular, do you agree that national wholesalers need some sub-1 GHz in order credibly to be able to offer higher quality data services? Please state the reasons for your views.:

Operators and / or National Wholesalers need a reasonable portfolio of spectrum to deliver capacity and coverage and this means access to spectrum in lower (as well as higher frequencies) will be needed.

Regulated wholesale access to networks where there is insufficient spectrum to assign to all operators that require this would be an alternative approach.

Question 5.2: Do you agree there is a material risk of a significant reduction in the competitive pressures, at least to provide higher quality data services, in retail and wholesale markets without measures in the auction to promote competition? Please state the reasons for your views.:

Promoting and enabling competition are important and the release of spectrum is a key step in enabling greater competition whether between the existing MNOs or as a result of a new entrant. The spectrum caps could be useful in ensuring that market dominance by one or two players is minimised. Beyond that there is little need to incorporate additional measures into

the auction process. Increasingly network consolidation / sharing measures to encourage competition should be considered (certainly not constrained).

Question 5.3: Do you agree there is a risk of potentially beneficial sub-national RAN uses not developing without measures to promote competition? Please state the reasons for your views.:

Promotion of competition should be encouraged but not to the detriment of stifling deployment whether at a national or sub-national level. We believe promotion should be encouraged via the auction.

Question 5.4: Do you agree with the analysis that at least four competitors are necessary to promote competition?:

No!

More than one operator is surely sufficient to promote competition.

Attempts to ensure at least four operators may be disadvantageous in the long-term as network consolidation and sharing is already happening within the UK and within Europe. Operators should not be constrained in considering network sharing options or indeed limited in mergers and acquisition options. MVNOs have also enabled greater consumer choice and have successfully increased the competitive environment.

Question 5.5: Do you agree that the specific measures we propose to take to ensure there are at least four holders of such spectrum portfolios are appropriate and proportionate?:

No!

The market should determine how many licensed operators are in receipt of spectrum awards. The regulator attempted previously to make an assumption of minimum number of spectrum holders, assuming 5 entities, only to see market consolidation reduce this to 4 entities. It should not be assumed that further market consolidation (in network) is unlikely.

Question 5.6: Given the measures we propose to take to ensure four holders of spectrum portfolios sufficient credibly to provide higher speed data services, do you agree that it would not be appropriate or proportionate to introduce a regulated access condition into the mobile spectrum licences to be awarded in the combined award?:

See response to question 5.4.

Question 5.7: Do you consider that we should take measures to design the auction to assist low-power shared use of 2.6 GHz? If so, what specific measures do you consider we should take?:

Intel supports any measures that would increase the possibility of competition; bring in the timescales for deployment; improve coverage and ultimately benefit end consumers. Intel however would question the added value in the UK defining a UK-only approach and would prefer to see a market-based approach to any low-power use and defer to Operators to provide additional input. We do not believe that it is the best interests to have spectrum reserved for low-power use only.

Question 6.1: Do you have any comments on the proposal to include in one of the 800 MHz licences an obligation to serve by the end of 2017 an area in which 95% of the UK population lives, while providing a sustained downlink speed of 2Mbps with a 90% probability of indoor reception? Do you think there is another way of specifying a coverage obligation that would be preferable?:

The 800 MHz spectrum is too limited in bandwidth to deliver any great capacity and will become capacity constrained very quickly especially if deployed in densely populated areas. If the aim was to deliver broadband services to the rural communities then perhaps the metric should be to cover rural areas where the remaining 5% of the population live.

It is very unclear what problem Ofcom is trying to solve with these proposals.

Question 6.2: We would welcome views and evidence on the costs and benefits of imposing an additional coverage obligation focussed on particular geographical areas, and if such an obligation were to be imposed what might be the appropriate specification of geographic areas?:

No comment.

Question 6.3: Do you have any comments or evidence on whether an additional obligation should be imposed to require coverage on specific roads?:

No comment.

Question 6.4: Do you have any comments on our proposal not to use the combined award to address existing not-spots?:

No comment.

Question 6.5: Do you have any comments on our proposal not to impose ?use it or sell it? obligations but to consider including an additional power to revoke during the initial term of the licences?:

No comment.

Question 7.1: Do you have any comments on the proposals relating to the duration of the initial licence period, our rights to revoke the licence during

this period, the charging of licence fees after the end of the initial period and our additional revocation powers following the initial period?:

No comment.

Question 7.2: Do you have any comments on the proposal to amend the spectrum Trading Regulations to apply to the auctioned licences in the 800 MHz and 2.6 GHz bands, to include a competition check before we consent to a spectrum trade of mobile spectrum and not to allow transfers that would increase the number of 2.6 GHz low-power licensees?:

No comment.

Question 7.3: We welcome views on the merits of the proposed approach to information provision, in particular concerning the type of information that may be helpful and any impacts that publication of information might have both on licence holders and the wider spectrum market.:

We believe that security and privacy must be considered but in principle if proposals could be implemented to assist increase the possibility of secondary markets and / or spectrum trading we'd support them.

Question 8.1: Do you agree with the way in which we are taking account of the main factors relevant to spectrum packaging and why?:

Intel supports efforts to enable deployment of higher broadband services and applications and as such we do not see the need for 1.4 MHz channel sizes.

Question 8.2: Are there other factors that we should consider to develop our approach to packaging? If so which ones and why?:

No comment.

Question 8.3: Do you agree with our packaging proposals for the 800 MHz band? Please give reasons for your answer.:

See response to questions 5.4 and 5.5.

Question 8.4: Do you agree with our proposal not to allow relinquishment of 900 MHz spectrum and why? Do you have any other comments regarding our packaging proposals for the 900 MHz band?:

No comment.

Question 8.5: Do you agree with our proposal not to allow relinquishment of 1800 MHz spectrum and why? Do you have any other comments regarding our packaging proposals for the 1800 MHz band?:

No comment.

Question 8.6: Do you agree with our proposal not to make provisions to include 2.1 GHz spectrum in this auction and why?:

No comment.

Question 8.7: Which aspects of our packaging proposals for the 2.6 GHz band do you agree with and why?:

Intel supports the proposals that the UK follows the 2.6 GHz EC Decision (2008/477/EC).

The results of auctions in other countries is not necessarily a guide to what might happen in the UK and these results could have been due to the regulator influencing the bidding by introducing regulatory conditions which may have skewed the results.

Intel supports Ofcom seeking to ensure contiguous lots where possible and favours the 20MHz option to ensure there is sufficient capacity to support higher speed services in the future.

Question 8.8: Do you agree with our proposed approach for eligibility points and why?:

No comment.

Question 8.9: Which approach to reserve prices do you think would be most appropriate to secure optimal spectrum use in the interests of citizens and consumers, and why?:

A review of existing licence awards made elsewhere in Europe suggests that the spectrum awards will be substantially lower than the 2 GHz core band awards of 1999/2000. The reserve price should therefore reflect the much lower expectation as evidenced elsewhere in Europe. The UK does not have a unique market place that would suggest a greater expectation of spectrum cost. It's more important to get the spectrum released/used since this will stimulate competition and coverage.

Question 9.1: Do you agree with our proposals for the auction design and why?:

No comment.

Question 9.2: Do you have any comments on the proposed auction rules as explained in section 9, Annex 9 and Annex 10?:

No comment.

Question 9.3: Do you have any comments on how we should approach the payment of deposits and licence fees?:

No comment.

Question 10.1: Do you have any comments on our proposal to use 800 MHz price information as derived from the auction to estimate the full market value of 900 MHz spectrum?:

No comment.

Question 10.2: Do you have any comments on our proposal to use an average of 800 MHz and 2.6 GHz price information as derived from the auction to estimate the full market value of 1800 MHz spectrum?:

One would anticipate that the value of 800 MHz, and also 1800 MHz, is substantially more than that for 2.6 GHz so taking an average might not actually provide a fair valuation for the 1800 MHz band. It may also be useful to consider the other 800 MHz and 2.6 GHz awards elsewhere and also factor in that the UK has missed the opportunity as a first mover and can therefore expect a lower valuation of the spectrum as a result.

Question 10.3: Do you have any comments on the proposed approach to convert lump sum amounts into annual payment?:

No comment.