

Intellect response to:

**Ofcom's Consultation on the
Coexistence of new services in the
800 MHz band with digital terrestrial
television**

About Intellect

Intellect is the trade association for the UK technology industry. In 2007, the industries Intellect represents accounted for 8% of UK GDP, £92bn of Gross Added Value and employed 1.2m people.

Intellect provides a collective voice for its members and drives connections with government and business to create a commercial environment in which they can thrive. Intellect represents over 750 companies ranging from SMEs to multinationals. As the hub for this community, Intellect is able to draw upon a wealth of experience and expertise to ensure that its members are best placed to tackle challenges now and in the future.

Our members' products and services enable hundreds of millions of phone calls and emails every day, allow the 60 million people in the UK to watch television and listen to the radio, power London's world leading financial services industry, save thousands of lives through accurate blood matching and screening technology, have made possible the Oyster system, which Londoners use to make 28 million journeys every week, and are pushing Formula One drivers closer to their World Championship goal.

In the past 12 months 14,500 people have visited Intellect's offices to participate in over 550 meetings and 3,900 delegates have attended the external conferences and events we organise.

Preamble

Intellect welcomes Ofcom's consultation on the coexistence of new mobile services in the 800 MHz digital dividend band with Digital Terrestrial Television (DTT) services in adjacent spectrum. As operators, service providers and equipment suppliers, our member organisations are instrumental in delivering both DTT and mobile services and so our priority is for Ofcom to ensure the successful and timely launch of new mobile services, without compromising the quality of service trusted by consumers of Digital Terrestrial Television.

The UK has a successful and competitive mobile communications market and industry. Mobile data volumes are escalating and the sector is a crucial one for future UK growth. The release of spectrum is vital in this process.

Intellect's members in conjunction with other key stakeholders have also been instrumental in ensuring that Digital Terrestrial Television has become the success that it is today. Everything possible must be done to avoid UK consumers losing their television services. We are keen that Ofcom does everything possible to avoid interference problems arising; identify potentially affected DTT households; inform them of the implications, support and options available; and then ensure proactive mitigation activities to resolve interference problems.

Summary

Intellect recognises both the importance of releasing the 800MHz spectrum and ensuring the proper protection of DTT. The auction technical licence conditions should be set in a way that minimises the risk of interference to DTT, including additional base station filter requirements only in locations where these are necessary. Intellect suggests there is need for further analysis in conjunction with industry to inform the appropriate Technical Licence Conditions. With a possible follow-on consultation relating to coexistence and the mitigation regime to be progressed.

MitCo should be established to resolve consumers' interference problems in a proactive and predictive manner. This should be paid for by Government (costs offset by auction proceeds) as this will avoid the need for bidders to factor unknown risks into their bids, in order to promote an efficient auction outcome. MitCo should be responsible to Government and Ofcom and take its decisions in cooperation with and consultation with stakeholders, including the 800MHz licensees, DTT Multiplex transmission providers and other parties with an interest in the DTT platform.

Consultation question responses

Consultation question 1: Do you have any comments on our modelling approach and assessment of numbers of households affected?

From the technical standpoint, Intellect while generally agreeing with the modelling approach taken by Ofcom has some concerns, such as the lack of correlation against the field trial results and the assumptions regarding LTE Tx power. Our understanding is that Ofcom's criteria for defining the number of potentially affected households focuses on the main television set only and excludes consideration of subsequent sets in the household. Ofcom's position in terms of the impact on secondary TV sets should be made clearer, supported by an impact assessment.

Some Intellect members additionally wish to see Ofcom undertake a sensitivity analysis with regard to different combinations of interference assumptions and mitigation options to better evaluate the range of possible outcomes and better optimise the mitigation regime.

Consultation question 2: Do you agree with our high level conclusions on mitigation options?

Intellect agrees with and supports the use of "DTT receiver filtering" in conjunction with appropriate "Base Station transmit filtering" as the principal mitigation techniques. We believe that the filtering requirements proposed in Case A, as defined in Commission Decision 2010/267/EU, is the appropriate level for licensing conditions. Some members believe that additional filtering should be required in certain areas, but other members are concerned about the feasibility of implementing this. This is one of several possible mitigation techniques, and it should be the responsibility of MitCo to choose the most effective and the most cost-effective solution.

We acknowledge that the use of OCRs has the potential to resolve some of the remaining cases of interference, with little or no adverse impact on consumers. However, we note that, during recent field trials, OCRs could only resolve a small number of affected households. The assessment in Ofcom's technical report suggests that the viability of OCRs as a universal mitigation tool remains uncertain. Some members believe that OCRs might reduce the effectiveness of current BTS designs which are intended to minimise the visual/environmental impact of BTS sites. Their effective use needs to be explored further.

Ofcom should also investigate the potential loss of business by suppliers of current services (eg. DTT services and TV / broadband bundles) as a result of the proposed platform change option, and some members believe that Ofcom should also consider how compensation should be addressed. Platform changes should only be offered as a solution of last resort where other measures are not technically or economically viable.

Consultation question 3: Do you have any comments, views or evidence that you would wish to be considered in our further work looking at the appropriate level of consumer support?

Intellect believes that there is the potential for a significant degree of consumer misunderstanding about this interference problem. Therefore it is essential that the level of consumer support should not be compromised. Consumer groups should be engaged early and a proactive plan for localised programmes of awareness / education and mitigation devised. This may need to start before the licence award if the roll-out of the networks is not to be delayed. Therefore, Ofcom should consider establishing MitCo in a shadow form before the auction (in the same way that Ofcom was itself established in shadow form before the Communications Act came into force). The need for continuing consumer support after network roll-out should also be addressed. Some members believe that this may be necessary for the whole of the licence term of the new services.

It will be important for MitCo to develop a model to properly analyse the potential interference around the base stations. Having performed this analysis it should be able to focus mitigation solutions such as the provision of filters to affected households. This will allow proactive management of any calculated interference prior to switch on. MitCo will need to work closely with the licence holders, because they will be responsible for implementing mitigation techniques for base stations.

Intellect believes that Ofcom should take account of the expertise, knowledge and systems developed during the Digital Switchover process by Digital UK and exploit existing best practice. In particular Digital UK has developed working practices to respond to enquiries from vulnerable and needy members of society which we believe will be particularly relevant if DTT services are affected as a consequence of the introduction of mobile services. It is important to recognise a model is an indicator, and that the actual impact of interference generated by new services will not be known until licensees start transmitting.

Consultation question 4: Do you have any comments or views on how we have assessed the approaches and our preference for the hybrid approach?

The details presented in the consultation document on the delivery of mitigation are somewhat confusing, and need to be made clearer. As a key trade association, Intellect stands ready to work with Ofcom in facilitating the industry – Ofcom dialogue to assist with this. In the meantime, it offers the following views:

The establishment of MitCo is welcome. Intellect considers that MitCo should work closely with Broadcasters / Multiplex Licence Operators and the new mobile licensees to ensure the optimum mitigation outcome for DTT protection. Some members believe that it should be an agency independent of the licence operators and have direct responsibility and accountability to Ofcom. Other members believe that MitCo will need to work in partnership with the licence holders. MitCo's status should be determined as soon as possible to allay misconceptions.

MitCo's Governance and Terms of Reference should be developed jointly by Ofcom and industry stakeholders, with input from consumer representatives. These should reflect the responsibilities of MitCo:

- To provide information to consumers
- To manage and remedy any interference to consumers' reception as the networks are rolled out.
- To endeavour to minimise any consequential delays to the deployment of 800 MHz networks to the minimum.

It should have access to information about the mobile operators' network roll out plans to ensure the mitigation arrangements are optimised.

Although the cost of deploying the mitigation measures is expected to be small in comparison with the cost of an 800 MHz licence, Ofcom has recognised that it is difficult to predict with accuracy the cost of the measures. Nevertheless it is asking bidders in the 800 MHz licence auction to determine the market value of a licence, on which there is an unknown liability. Given the recent history surrounding this licence auction, and the requirement for transparency and bidder confidence, it is most surprising that this uncertainty has been imposed on the successful licence holders.

Ofcom's current proposal for a tariff per base station is in effect a tax on base station deployment. This is a disincentive to the deployment of base stations in lower traffic areas, which runs counter to the policies of Ofcom and the Government to promote rural broadband. Intellect does not support this approach.

Thus Intellect believes that MitCo should be funded by Government, with the cost being offset by auction revenues. This avoids bidders having to carry the risk of predicting the actual costs of resolving future problems and thus should lead to a more efficient auction.

Consultation question 5: Do you agree with the options, the assessment approach and our initial conclusions? What are your views on cost risks and how to deal with them?

Whilst Intellect agrees with the assessment of the problem, and largely agrees with the mitigation measures to be applied, we do not agree with the method proposed to address the solution. The 800 MHz licence auction should proceed without any unnecessary uncertainty, which could be considered to be distorting the outcome of the auction. MitCo is likely to learn from experience however some members believe that the Ofcom technical working forum should be urgently re-established to address the issues raised in the consultation process in order to better inform MitCo's decision making. Intellect believes that the mitigation process should be proactive rather than re-active, that the funding arrangements should be suitably flexible, and decision making should be rapid to be able to deal quickly with

unforeseen outcomes as they arise. However Ofcom has not yet defined the extent of support to be offered to impacted households and this leaves some uncertainty.