

**BBC COMMENTS ON THE EC CONSULTATION: "TRANSFORMING THE DIGITAL DIVIDEND OPPORTUNITY INTO SOCIAL BENEFITS AND ECONOMIC GROWTH IN EUROPE"**

**4 September 2009**

**Introduction and General Comments on Sections 1 to 3 of the Consultation**

The BBC welcomes the opportunity to present its comments on the European Commission consultation document on transforming the digital dividend opportunity into social benefits and economic growth in Europe.

The UK strategy for clearing spectrum was developed and set in the period 2000 – 2004 as part of the Government's Digital Action Plan. It was identified that channels 31 to 40 and 63 to 68 could be cleared (released) of broadcast use. This culminated in an agreed and co-ordinated plan at the ITU conference in Geneva in 2006. As part of this plan, channels 61 and 62 were allocated to broadcast services. In June 2009, and following a consultation on clearing the 800 MHz band, the UK regulator Ofcom issued a statement which set out its decision to clear 790–862 MHz, channels 61 to 69, of existing and previously planned services. This will allow the UK to align its upper digital dividend band with other countries in Europe.

The BBC has and will continue to support this work. Through its Royal Charter, the BBC has a general duty to secure the efficient use of the radio spectrum that is available for its own use or by its contractors. The BBC also recognises the wider economic benefits of efficient use of spectrum, be it by broadcasters, wireless broadband operators, mobile telephony companies or other spectrum users. However, while actively supportive of efficient spectrum use, the BBC believes action to achieve this efficiency must not result in audiences losing broadcast coverage; nor should audiences, or broadcasters, bear the cost associated with spectrum clearance.

The BBC also supports the objective of ensuring universal, high-quality broadband coverage. This support is congruent with the BBC's sixth public purpose of "helping to deliver the benefits of emerging communications and services" and fitting of a public service broadcaster which provides original, online news and information to over two out of every five people online in the UK, and catch-up TV programmes to around 600,000 users daily via the BBC iPlayer. We believe wireless broadband is likely to have a role in achieving universal broadband and we note that there is a growing demand for wireless communications.

However, this must be seen in the context of DTT, which is proving to be a significant growth industry in many countries. In the UK, it is the most popular means of receiving digital television, with Freeview offering an 'open' platform to content creators, giving audiences access to a wide-range of PSB and commercial channels and services, guaranteed to be subscription-free. The UK ecology currently demonstrates strong inter-platform competition with large, and growing, pay satellite and cable offers. Yet with pay platforms offering significant advances in functionality either now or in the near future (eg. HD channels, VOD and Push VOD, IP connectivity), the free DTT platform must be allowed to evolve to maintain its pro-competitive role. The anticipated future growth in sales of integrated DTT-based 'HD ready' flat panel displays will likely drive demand for broadcasters to make full use of the available spectrum resource. Audience expectation of additional functionality now and in the future will make further demands on the spectrum allocated to broadcasters.

In principle, the BBC welcomes the concept of an agreed roadmap which would define the process and key deadlines for implementing a set of strategic actions to be taken together at an EU level. But while the BBC agrees that this could help achieve a higher degree of consistency between the Member States, it is not convinced that the actions would necessarily lead to further increases in the size and quality of the digital dividend over and above that which is already envisaged. The BBC would like to see further clarification on the proposed actions.

In the BBC's experience, through its discussions with other administrations and broadcasters, the requirements for broadcasting spectrum in different countries can vary greatly in terms of the type and extent of DTT coverage. Partly for this reason, the BBC believes that supporting and extending the communication and collaboration that is already taking place between several Member States can only benefit industry in Europe as a whole.

In addition to the responses given below on the proposed elements of a roadmap, the BBC is aware that the EBU will also make a response to this consultation and is supportive of its contribution.

## **Proposed Elements for a Roadmap**

### **4.1. Improving consumers' experience by ensuring high quality standards for terrestrial digital television receivers in Europe**

The BBC agrees that it is important to improve consumers' experience by ensuring high quality standards for terrestrial digital television receivers.

The sales of 'HD Ready' flat panel displays are growing rapidly. Around 93% of sets now sold in the United Kingdom are digital and 'HD Ready' is the norm. The BBC therefore believes that HD is the next broadcasting standard and that it should be provided on DTT. Although other European markets show varying trends, with different drivers for growth and television consumption, HD take-up is increasing rapidly, with many European broadcasters and other operators in the supply chain (including retailers and manufacturers) moving from SD to HD.

Mobile TV reception and 3DTV are also likely to fuel growing consumer demand from a digital TV experience.

**a. Ensuring the availability of a compression standard on all DTT receivers sold after 1 January 2012 that is at least as efficient as the H264/MPEG-4 AVC standard**

Digital broadcasting technology is continuously evolving, and this facilitates increasingly efficient use of spectrum and the introduction of new innovative services. However, the BBC considers that the transition from one broadcasting standard to another is a complex issue affected by technology and marketing considerations as well as by the nature of the channel/service offerings. In any case it is essential that sufficient spectrum is available for broadcasters to operate a viable DTT platform.

The BBC also wishes to highlight that any transition to a new standard should be achieved in a way that does not adversely affect those with existing receivers while at the same time creates incentives for these audiences to upgrade (e.g. HD).

In the short term, it would seem inappropriate to pick one standard over another. There already exist mechanisms in Europe to standardise receivers which are tailored to individual or groups of countries. For example, the 'D-Book' sets out the detailed technical standards for digital terrestrial television in the UK. Another example is EICTA (now DIGITALEUROPE) which – in consultation with the EBU and other members of the broadcast industry – has agreed on minimum requirements for HD receivers and displays.

Consequently, the BBC is in agreement with the EBU in noting that an increasing number of receivers on the market are compatible with H264/MPEG-4 AVC and therefore regulatory action may not be necessary. Rather than mandating any particular coding system, it may be more appropriate to define an appropriate performance benchmark that new TV receivers should achieve.

**b. Setting standards for the ability of digital TV receivers to resist interference**

The BBC supports the initiative to improve the standards for the ability of digital TV receivers to resist interference. This has the potential to provide longer term improvements in spectrum efficiency. The BBC considers that in addition to interference rejection criteria, new standards should include DTT reception modes and other performance indicators (e.g. picture quality requirements) that would enable an improved user experience.

The BBC is particularly concerned about the risk of potential interference from fixed/mobile services operating in the digital dividend bands. The BBC considers that further compatibility studies between the new wireless networks and broadcasting must be carried out in order to ascertain what measures need to be taken to protect consumers of broadcasting from harmful interference.

**4.2. Increasing the size of the digital dividend through further spectrum efficiency gains**

The BBC is working with other public service broadcasters and the industry to implement the DVB-T2 digital transmission system, along with the MPEG-4 advanced video coding technology. This will enable the UK to deliver at least four HD services on a single DTT multiplex in 2010.

Whilst this represents a significant spectrum efficiency gain, it will be some years before the benefits will be possible in the other five UK multiplexes given the large MPEG-2 receiver base that currently exists, and continues to grow, as part of the analogue switchoff process.

Furthermore, the BBC recognises that it will be difficult for many Member States to take advantage of DVB-T2 in the short term for three main reasons: i) the system has yet to be fully proven and receiver availability is uncertain, ii) the

need to understand and evaluate how a second transition might be implemented in their particular environment, and iii) the considerable costs for the broadcaster and viewer.

**a. Promoting collaboration between Member States to share future broadcasting network deployment plans (e.g. migration to MPEG-4 or DVB-T2)**

The BBC welcomes the Commission's initiative to promote co-operation between Member States in deploying DTT networks plans. The BBC has, and continues to take, a leading role in working with other broadcasters in Europe through collaborative activities such as with the EBU and by actively assisting the UK Administration in the co-ordination process with neighbouring countries. In the BBC's experience, all parties can benefit significantly from involvement in the coordination process where the latest ideas and best planning solutions can be exchanged and applied.

**b. Encouraging the deployment of Single Frequency Networks (SFNs) over Multiple Frequency Networks (MFNs)**

The BBC does not foresee in the near future the wide scale deployment of Single Frequency Networks (SFNs) in those countries that have already planned to, or are, operating Multiple Frequency Networks (MFNs). In such countries, which include the UK, the use of SFNs would imply a change of frequency, transmitting antenna and DVB-T variant, and would be likely to result in coverage problems in some areas. As a consequence, there would be an associated and not inconsiderable cost to the broadcaster and also to the consumer who will probably need a new receiving antenna installation. Furthermore, large scale or national SFNs may not deliver the required regional content – and if configured to do so would require as much spectrum as MFNs.

The BBC does agree that SFNs are an efficient way to provide coverage for portable (indoor) and mobile reception over large areas. However, SFN planning requires that great care is taken to avoid self interference within the network. The distance between transmitters in the SFN requires special attention and may become an issue if existing non-SFN networks are employed.

As stated above, the BBC fully supports sharing experiences with broadcasters in other Member States and will continue to support such activities, eg. through the EBU, CEPT and at co-ordination meetings with neighbouring countries.

**c. Supporting research into "frequency agile" mobile communications systems**

The BBC has no comments on this issue.

**4.3. Making the 800 MHz band available for low/medium power electronic communications networks, under harmonised technical conditions, following the principle of technology and service neutrality**

As already noted by the BBC in its previous responses to consultations on the digital dividend, European spectrum harmonisation might not be consistent with technology- and service-neutral auctions separately held in each country.

However, we believe it is nonetheless important to assess the public interest in the clearance of channels 61 to 69 aimed at aligning the digital dividend across the Member States, and explore ways of maximising the public interest.

There are considerable costs, as well as possible benefits, associated with the clearance of channels 61 to 69 but assessing them accurately is not straightforward.

(1) On the costs side: in some Member States – including the UK – the work necessary to realise the digital dividend has already begun or has been completed, and a change to existing plans will mean that some of the resources already committed to it by broadcasters will be wasted. Consumers, as well as broadcasters and the PMSE sector, will certainly suffer further disruption and potentially additional costs. The BBC considers that further studies are needed to establish these costs and believes that such costs should be met by those who will benefit from this released spectrum.

(2) On the benefits side: the BBC is not aware of a robust, agreed evidence base from which the estimates given in the Commission study are derived. In our view, these benefits are uncertain at best, particularly as it is not guaranteed that wireless broadband services would be provided on

that spectrum, nor that wireless broadband services would be “better” than other potential, yet unknown, services.

In the specific case of the UK, it would be necessary to clear channels 61 /62 of existing or planned DTT services, and channel 69 of SAB/SAP (Services Ancillary to Broadcasting/Services Ancillary to Programme making) so as to align with other countries in Europe.

The BBC considers that measures should be put in place to minimise the impact on broadcasters, consumers and the digital switchover schedules. The following principles should apply for channel changes:

- The resulting coverage should be the same for all reassigned services, as far as possible, so that consumers (and broadcasters) are not disadvantaged.
- Where an impact on consumers’ reception is unavoidable (i.e. the impact of an essential change has been limited to the smallest possible number of consumers), then consumers using fixed reception should be compensated for provision of relevant equipment (eg. new receiving antennae) funded by beneficiaries of the alignment.
- Broadcasters and other major stakeholders should be able to influence the timescale for channel changes, in order to minimise any impact on other significant transmission upgrade programmes (notably digital switchover).
- Broadcasters should be fully compensated for any costs incurred.

In the BBC’s experience, the time scales and resources required for clearing the 800 MHz band will be significant. The process involves extensive re-planning (including coordination between countries) and station re-engineering resulting in timescales of three to five years. In the UK, for instance, it might not be possible to fully achieve this re-planning before switchover is completed in 2012.

The BBC has no firm views on how the 800 MHz band should be utilised in the UK. It is anticipated that this band will be auctioned by the regulator Ofcom in 2010. The BBC will monitor developments to understand if there might be new opportunities for the future distribution of our services by the new operators in this band.

#### **4.4. Adopting a common position on the potential use of the "white spaces" as part of a possible extension of the digital dividend**

A common approach to the use of "white spaces" presents challenges. The BBC notes that there is particular interest in new technologies like software defined radio and cognitive radio. With these technologies, services search their own frequency on the basis of certain criteria. The feasibility for these kinds of applications, to operate on a non-interference basis with digital broadcasting, has not yet been proven in the European context. The BBC considers that the specification of these kinds of devices requires careful attention in order to guarantee that no interference will be caused to broadcasting applications.

It should also be noted there is the requirement to accommodate not only existing SAB/SAP but also those services displaced from the 790 –862 MHz band. Given these factors there is a risk that there will not be enough spectrum for SAB/SAP users, and yet a further risk that the complexity and the cost of buying new equipment is prohibitive for small users (local festivals, churches, schools), diminishing the vitality of community life in Member States. In this respect it is not clear if there will be much opportunity for white space devices. Moreover, in the UK and in some of our neighbouring countries, there is a requirement for additional broadcast services that will occupy and significantly erode the potential capacity of the white spaces.

#### **4.5. Ensuring the continuity and further development of wireless microphone applications and other secondary uses of the UHF spectrum**

The BBC supports the EC objective to determine the best strategy to ensure a "migration path" for current secondary use of the UHF spectrum. The BBC believes that any alternative spectrum must be fit for purpose and free from undue interference. Whilst harmonised measures may seem attractive, the BBC is not convinced that this is achievable on a pan-European basis given the different situations and channel usage in the various Member States. In the BBC's view, the feasibility and benefits of such measures would need to be studied.

#### **4.6. More effective cross-border coordination with non-EU countries**

The BBC does not currently carry out cross border coordination with non-EU countries. However, based on the UK's positive experience of cross border coordination with other Member States, we believe this would likely be a valuable objective.

#### **4.7. Addressing future challenges**

The BBC supports the proposal to monitor developments in technology, services, market demand and societal requirements. As indicated in our response to section 4.1, there is already strong evidence that HDTV will be a significant consumer driver for the DTT platform.

With regard to a possible spectrum bottleneck caused by the increased demands for wireless broadband we believe that it is necessary for all services to seek spectrum efficiency gains. The BBC notes that whilst there are alternative frequency bands for these wireless broadband services, this is not the case for DTT.

### **Urgent Actions**

#### **5.1. Accelerating analogue switch-off by 2012**

In the UK we have been fully involved and supportive in working with Government to prepare a timely switchover plan which will be completed in 2012. We agree that Member States that have not yet committed to analogue switchover should be encouraged to do so as soon as possible.

Accelerating the timetable in the UK to complete ahead of 2012 would not be possible.

We would point out that even if switchover is achieved by all Member States in 2012 this does not imply that the 800 MHz band will be freed up at this date. A further switchover process is required to re-allocate existing DTT services. In the UK, it is anticipated that this process will take place between 2012 and 2014. It seems likely that similar time scales could apply for other countries in Europe.

**5.2. Taking steps towards the opening of the 800 MHz band for electronic communications services by adopting harmonised technical conditions of use in Europe**

See answer to 4.3.

**Endnote:** This response is made solely on behalf of the BBC. The BBC is one of a number of public service broadcasters in the UK. The response does not seek to represent the views of other UK public service broadcasters, nor the views of the UK Government which the BBC expects to make its own response.