

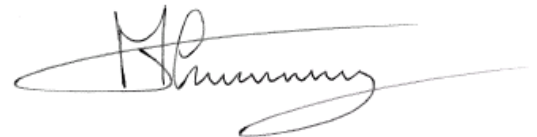
September 4, 2009

**“TRANSFORMING THE DIGITAL DIVIDEND OPPORTUNITY INTO
SOCIAL BENEFITS AND ECONOMIC GROWTH IN EUROPE”**

Please find hereafter the United Kingdom’s response to the European Commission consultation document “Transforming the digital dividend opportunity into social benefits and economic growth in Europe,” published by the Information Society and Media Directorate-General on July 10, 2009. This response represents the joint views of the relevant UK Government (Department for Business, Innovation & Skills) and regulatory (Ofcom) authorities.



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European Commission proposal	UK response
Urgent actions	
5.1. Accelerating analogue switch-off by 2012	
<p>Member States which have not yet completed the digital switchover would be requested to reaffirm their commitment to the EU target date for the effective switch-off of analogue TV broadcasting by 1 January 2012, and to complete all required preparatory measures necessary in 2011 at the latest in order to meet this deadline.</p> <p>Member States would be requested to accelerate the switchover process by confirming the switch-off date in national law, if they have not already done so.</p>	<p>We continue to support the Council Conclusions of December 2005 that encouraged Member States to complete digital switchover by ending analogue terrestrial transmissions by end-2012. We fully support the efforts of the Commission to encourage every Member State to publish firm, realistic plans for the completion of switchover consistent with that timetable. However, we recognise that market conditions differ from country to country and believe that each Member State should implement switchover in the way that takes full account of its economic and social conditions. Nothing in our experience of implementing switchover so far indicates that it would be possible for the UK to accelerate switchover for completion by 1 January 2012, and this may be the case for other Member States. The UK has taken all necessary regulatory steps to ensure that analogue terrestrial transmissions will cease by 31 December 2012 and has no need additionally to include this date in national law. We do not, therefore, support the Commission's proposal that all Member States should confirm the switch-off date in national law.</p>
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	
<p>The Commission would submit to the Radio Spectrum Committee (RSC) pursuant to the Radio Spectrum Decision a draft EC decision on the technical harmonisation of the 790-862 MHz band for regulatory opinion in autumn 2009, followed by a final adoption by the Commission at the beginning of 2010.</p> <p>In parallel, it would be recommended to Member States to refrain from any regulatory action regarding the use of the 800 MHz band that would</p>	<p>Given Denmark, Finland, France, Germany, Spain, Sweden, Switzerland and the UK have already announced plans to release the 800 MHz band and other Member States are consulting on digital dividend plans of their own, we consider Europe is moving toward a common approach to the use of this spectrum without further Commission intervention. We therefore question the value of a Commission Decision on technical harmonisation. However, we would not object to a Commission Decision that required Member States that decide to release the 800 MHz band to conform to a set of technical measures provided (a) these are consistent with the reports from CEPT in response to the second Commission mandate on technical considerations regarding harmonisation options for the digital dividend in the EU and (b) it is adopted by the beginning of 2010.</p>

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contradict, or complicate the application of, the technical harmonisation measure being planned at EU level.	We do not support a Decision that would set a timetable for Member States to release the 800 MHz band. We believe individual Member States are best placed to make this decision in the light of national circumstances.
Proposed roadmap	
4.1. Improving consumers' experience by ensuring high quality standards for terrestrial digital television receivers in Europe	
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. This requirement should not be exclusive and should allow co-existence with other standards, among others to ensure backward compatibility with older standards.	We do not agree that all DTT receivers sold in the EU should be required to meet compression standards, however these are expressed. The market is moving in this direction anyway, so we see no advantage to be gained from EU-level action, rather an increased risk of regulatory failure from taking the wrong action.
b. Setting standards for the ability of digital TV receivers to resist interference. This could be achieved through a close cooperation of Member States in the context of equipment standardisation (CENELEC). A minimum quality of reception would improve the consumer experience as well as reduce the cost of other interference protection measures which would be required on future equipment operating in adjacent frequency bands. It is important that any such minimum requirements be consistent at EU level in order not to create undue barriers in the single market for such equipment.	<p>We agree that there are strong arguments for all DTT receivers sold in the EU to conform to minimum interference-rejection standards. Such standards are set out in only a voluntary manner in the UK through the D-Book maintained by industry association the Digital TV Group, although Ofcom has proposed raising the current requirements for DVB-T2 receivers. Such standards should apply only to the radio-frequency elements of receivers and not to other back-end functionality (e.g. service-information data handling). We would expect (and hope to contribute to) a robust evidence base for specific proposals in this respect.</p> <p>The challenges involved in agreeing and enforcing these standards should not be underestimated, so we would recommend that the Commission engage in early discussions with ETSI and DVB. It will also be important that organisations other than broadcasters contribute to these discussions to help ensure that receivers have an appropriate specification that takes account of non-broadcast-television interference issues.</p>

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4.2. Increasing the size of the digital dividend through further spectrum efficiency gains	
<p>a. Promoting collaboration between Member States to share future broadcasting network deployment plans (e.g. migration to MPEG-4 or DVB-T2). This initiative would be complementary to the actions proposed in section 4.1. and would aim at fostering cooperation between Member States committed to future target dates for migration to more spectral efficiency standards by actually upgrading networks. The Commission would act as a facilitator and produce guidelines.</p>	<p>We believe individual Member States and/or DTT providers are best placed to decide on broadcasting network deployment plans in the light of national circumstances, including market conditions. We agree that Member States should share such plans at an early stage.</p>
<p>b. Encouraging the deployment of Single Frequency Networks (SFNs) over Multiple Frequency Networks (MFNs). This could include considerations to migrate progressively to lower power/higher density broadcasting network topologies. As this approach may require very significant investments, which could exceed benefits in many Member States, the proposed action would be limited to requiring Member States to exchange experience of SFN deployment with the assistance of the Radio Spectrum Committee to gather and assess the information.</p>	<p>We would welcome the opportunity to share information on SFN deployment. However we agree with the Commission that the costs of deploying SFNs may exceed the benefits for some Member States. We therefore do not agree that SFN deployment should be favoured over MFN deployment and maintain that Member States are best placed to make individual decisions on network plans in light of national circumstances.</p>
<p>c. Supporting research into "frequency agile" mobile communications systems. Such systems could greatly simplify spectrum coordination, increase efficient use of spectrum, and allow for simpler transitional arrangements in the future. The development of such systems would</p>	<p>We recognise the value of research into the development of frequency-agile technologies and support its encouragement. Given the incentives and benefits for wireless service providers and equipment manufacturers to conduct this research, we would expect there to be sound justification if any public funding were to be made available.</p>

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<p>however require significant investments that are very challenging to individual manufacturers but could probably be achieved on a cooperative basis, particularly if Community research funding would be made available to contribute to this goal.</p>	
<p>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</p>	
<p>Member States would be requested to implement the measure as soon as possible but no final implementation date would be specified in the technical harmonisation measure; instead, the measure would ensure that any Member State developing its spectrum planning beyond the current broadcasting use would do so in accordance with the technical parameters of the Decision. In the long transitional period to be anticipated, it would also provide technical parameters for co-ordination between Member States that continue with high-power broadcasting in the band and those that move to medium to low-power electronic communications usage.</p> <p>This is in line with the position of the Radio Spectrum Policy Group (RSPG), set out in detail in its (draft) Opinion on the digital dividend, which recommends that the Commission act swiftly to support the availability of the upper part of the digital dividend (790-862 MHz band) on a neutral basis for electronic communications services. The RSPG further advises that the Commission make its final</p>	<p>See urgent action 5.2.</p> <p>The UK is included in footnote 5.316 of the ITU Radio Regulations, and we recognise the benefits of other Member States that have not yet done so committing adherence to this footnote. However, we do not consider it would be appropriate for the Commission to attempt to require Member States (on a mandatory basis) to commit to this footnote.</p>

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<p>proposal regarding this band at the latest by 31 October 2009 in order to give sufficient time to stakeholders to plan investments and complete the necessary technical preparation before the actual availability of the band following analogue switch-off in 2012.</p> <p>In order to optimise the potential impact of the 800 MHz band, and after further investigations, the Commission may still consider proposing a final date for implementation beyond which the measure would have to be implemented by those Member States that have not already done so, in the context of strategic discussions on the development and implementation of the roadmap in to the context of the multi-annual spectrum policy programme.</p> <p>As a secondary measure, and in absence of a more generic allocation of the UHF band in the ITU, Member States could also be requested to show commitment to the digital dividend policy at international level by adhering to footnote 5.316 of the ITU Radio Regulations, which allocates the band 790–862 MHz to the mobile service on a co-primary basis (except aeronautical mobile). Those Member States which are not yet associated with this footnote would be requested to do so at the forthcoming WRC-11.</p>	
<p>4.4. Adopting a common position on the potential use of the "white spaces" as part of a possible extension of the digital dividend</p>	
<p>Member States would be invited to cooperate with the Commission in examining whether there are</p>	<p>As announced in Ofcom's recent statement (www.ofcom.org.uk/consult/condocs/cognitive/statement/), we support European</p>

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<p>grounds for opening up the "white spaces", or interleaved spectrum unused between broadcasting coverage areas, for use by cognitive radio equipment on the basis of a common set of technical requirements in Europe. If so, consideration could also be given to developing a coordinated approach to the regulatory treatment of usage rights for white spaces.</p>	<p>harmonisation around an acceptable standard for the introduction of licence-exempt cognitive technologies using interleaved spectrum. We would urge the Commission to submit proposals to the RSC to support this aim.</p>
<p>4.5. Ensuring the continuity and further development of wireless microphone applications and other secondary uses of the UHF spectrum</p>	
<p>The objective would be to determine the best strategy to ensure a "migration path" for current secondary users of the UHF spectrum (wireless microphones and similar applications). This work could include an examination at EU level including, if appropriate, a mandate from the European Commission to the CEPT. This work could lead to specific spectrum harmonisation measures, inside or outside the scope of the digital dividend, for such secondary uses in the future, in particular those of a mass market/consumer nature.</p>	<p>We are sceptical of the value of guidelines encouraging Member States to use an optimal frequency range if making a dedicated channel available for wireless microphones and similar applications. We believe the identity of any such channel will likely be the product of national circumstances—as was the case for channel 69 in the past, and will be for channel 38 in the future, in the UK—and therefore unlikely to be influenced by decisions in other Member States. Where these channels are within the same tuning range, users will be able to benefit from economies of scale in equipment manufacture anyway. Indeed, better practices and better equipment (e.g. providing greater tuning ranges), alongside reforms to introduce security of tenure for users of wireless microphones and similar applications and to allow the market to balance demand and supply, are likely to be more important.</p> <p>We note the reference to mandating CEPT to look at specific spectrum harmonisation measures, inside or outside the scope of the digital dividend, for such secondary uses in the future. CEPT is currently considering WRC-12 agenda item 1.5 – “to consider worldwide/regional harmonization of spectrum for electronic news gathering (ENG), taking into account the results of ITU-R studies, in accordance with Resolution 954 (WRC-07).” This work is ongoing and is attempting to identify scope for harmonisation, inside and outside the digital dividend, for services ancillary to programming and broadcasting within CEPT countries. We consider that this work fulfils the aims set out by the Commission.</p>

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4. 6. More effective cross-border coordination with non-EU countries	
<p>According to this proposal, the Commission could make itself available to provide assistance to Member States in their negotiations with non-EU countries on a bilateral or multilateral basis. The need for further action in this domain should be examined as early as possible, given the long negotiation cycles in the area of international spectrum coordination and with a view to adopting a common position at the forthcoming WRC-11.</p>	<p>We believe that bilateral negotiations generally operate very effectively, but we would not oppose the countries concerned involving the Commission as a neutral broker if they believed this to be helpful.</p> <p>Agenda item 1.17 of WRC-12 will consider sharing studies between the mobile service and other services in the 800 MHz band. The UK is engaged in these studies and is seeking to ensure that decisions taken at WRC-12 do not limit the possibility to deploy fixed and mobile networks in the band. Furthermore, the UK considers that the provisions agreed at the Regional Radio Conference in Geneva in 2006 for planning digital terrestrial broadcasting are fit for purpose and that no further action is required.</p>
4.7. Addressing future challenges	
<p>Dealing with the evolving nature of the digital dividend issue is a "dynamic" process. Developments in technology, services, market demand and societal requirements will require that the actions established under the roadmap evolve in parallel. Particularly relevant factors of uncertainty which have been identified are:</p> <ul style="list-style-type: none"> - the extent of consumer take-up of HDTV on the terrestrial platform in the future, compared to the take-up on other platforms such as satellite and IPTV on broadband networks (in particular in an NGA context); - a higher growth of broadband wireless usage leading to a spectrum bottleneck; - the emergence of unforeseen additional 	<p>We recognise that demand for spectrum is dynamic, changing in response to technological innovation and consumer behaviour. We agree that the need for further action should be kept under review but consider this would be best managed as part of the multi-annual spectrum programme every four to five years.</p>

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<p>broadband uses which would require access to more spectrum below 1 GHz, for example public service uses such as Public Protection and Disaster Recovery (PPDR) or public security;</p> <ul style="list-style-type: none"> - the pace of introduction of new technologies: new transmission compression standards, new frequency agile technologies and their ability to take advantage of the white spaces; - the possibility to create synergies with other regions of the world in the light of not foregoing the chance to benefit from potentially world-wide economies of scale. <p>The Commission proposes to establish a mechanism to monitor external developments affecting the roadmap. The Commission would report on any need for its review to the European Parliament and Council at least once every two to three years. This reporting would include changes in forecasts for spectrum demand and identify any future need for making further spectrum available on a co-ordinated basis. Further details on the proposed action lines and how they could be implemented should be defined following a full policy debate regarding the scope and precise nature of the follow-up to be given to these proposals.</p>	