



Response to the Directorate General Information Society & Media consultation on "Transforming the digital dividend opportunity into social benefits and economic growth in Europe"

4 September 2009

The Open Spectrum Alliance (OSA, <http://www.openspectrum.eu>) welcomes this opportunity to respond to the Spectrum Policy Unit's above-referenced consultation. OSA is a coalition of companies, organisations, and individuals working to unlock the potential benefits of bandwidth for all. A list of the founders, supporters and partners of the Alliance is given at the end of this document.

Our comments are relatively brief because we agree with nearly every statement in the consultation document. We particularly applaud the recognition, in the first section, that

“the Economic Recovery Plan has set a target of 100% broadband coverage by between 2010 and 2013. This cannot be achieved without a significant role being played by wireless infrastructures, including in the provision of broadband to rural areas, part of which can only be done by giving early access to the digital dividend.”

Need for White Space Device testing

However, one statement near the top of page 4 needs clarification. With regard to “technical solutions allowing the co-existence of bidirectional low/medium power networks (*e.g.*, for wireless broadband) and traditional high power broadcasting networks”:

“In its response to the Commission, the CEPT provided all the essential technical elements of such solutions and gave sufficient evidence that the interference management issues can be properly dealt with.”

Indeed, a great deal of work has been done by CEPT and we, too, think “the interference management issues can be properly dealt with.” However, CEPT Working Group SE43 recently began looking at “technical and operational requirements for the operation of cognitive radio systems in the white spaces of the UHF broadcasting band (470-790 MHz) to ensure the protection of incumbent radio services/systems and investigate the consequential amount of spectrum potentially

available as ‘white space’”. Thus, the “co-existence of bidirectional low/medium power networks... [and] high power broadcasting networks” is the focus of SE43’s ongoing work. The issue of how much interference protection from “white space devices” (WSDs) is needed by digital broadcasting remains controversial and may not be resolved to everyone’s satisfaction quickly or easily. Disposing of the uncertainties left by theoretical modeling will probably require field tests under a variety of realistic conditions. It is in no one’s interest to get this wrong - either by constraining wireless broadband access networks unnecessarily or by allowing DTV interference to become more than a very rare nuisance. Indeed, CEPT can provide a valuable service to the EU as a whole by fairly and impartially testing prototype WSDs, set-top boxes and DTV receivers. This would be consistent with **Section 4.1** of the consultation document (“ensuring high quality standards for terrestrial digital television receivers in Europe”).

Incentives for broadcasters to migrate to SFNs

Section 4.2 states an especially important position but we nevertheless urge a revision of the following sentence in paragraph “b”:

“As this approach [*i.e.*, DTV broadcasters migrating to Single Frequency Networks] 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.”

Given the importance of SFNs to the efficient use of spectrum, the proposed action is much too limited - indeed, it is “inaction”. It would be more useful to ask Member States to identify acceptable financial incentives aimed at making SFNs cost-neutral for broadcasters, *e.g.*, new accounting rules for the depreciation of transmission equipment, re-purposing some of the fees collected from broadcast receiver licenses, perhaps even direct state aid. Incentives for broadcasters to invest in greater spectrum efficiency are not unreasonable if their investments enable other beneficial uses in the released spectrum.

Leverage the position of WSDs beyond “considering”

Section 4.4 - “Adopting a common position on the potential use of the ‘white spaces’ as part of a possible extension of the digital dividend” - also suffers from excessive caution in the activity proposed:

“Member States would be invited to cooperate with the Commission in examining whether there are 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.”

Clearly there are grounds for opening up the ‘white spaces’ if there are productive uses and interference can be avoided. Even €1 in added value is better than the

opportunity costs of letting spectrum lie fallow. The fact that CEPT Working Group SE43 is laying the groundwork for a coordinated approach to “white spaces” means the Commission can already look beyond mere “consideration”. We suggest revising the just-quoted passage thusly:

“Member States would be invited to cooperate with the Commission in examining ways to open 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. A coordinated approach to the regulatory treatment of usage rights for white spaces should follow.”

Summary

The consultation document provides an excellent roadmap for maximising the social and economic benefits of the Digital Dividend. Most of the measures proposed are completely appropriate and likely to accelerate re-purposing and increase harmonisation. However, we have a few editorial changes to suggest.

Since CEPT’s examination of “technical solutions allowing the co-existence of bidirectional low/medium power networks (*e.g.* for wireless broadband) and traditional high power broadcasting networks” continues - especially with regard to “white spaces” - page 4 of the consultation document should not claim that CEPT has already “provided all the essential technical elements of such solutions...” Practical requirements for the coexistence of digital broadcasting and white space devices (WSDs) are still cloaked in controversy and may take a while to resolve. We think it is so important to get this right that the consultation document should call on CEPT to implement a programme of scrupulously fair field testing of prototype WSDs, set-top boxes and DTV receivers.

Second, the action proposed in **Section 4.2** of the consultation document is 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.” We don’t think that goes far enough. We propose asking Member States to identify acceptable incentives to encourage broadcasters to migrate to SFNs.

Finally, just ahead of this **Summary**, we suggest an alternative wording for **Section 4.4** which recognises steps now being taken to coordinate the introduction of spectrum usage rules for WSDs.

Thank you for the opportunity to contribute to the development of policy in this important subject area. For further information, please contact Robert Horvitz, Stichting Open Spectrum, Slavikova 11, 120 00 Prague 2, Czech Republic, mobile tel +420 775 024 705, email: office@openspectrum.info

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