

## **Danish comments to the European Commissions consultation document: Transforming the digital dividend opportunity into social benefits and economic growth in Europe**

### **General remarks:**

Denmark welcomes the Commission's coordinated approach of making the digital dividend available for further development of next generation mobile broadband not least that it contributes to the Lisbon goals of competitiveness and economic growth and to the goals of the Economic Recovery Plan.

Denmark also sees the digital dividend as an opportunity to introduce even more flexible spectrum management, which allows for further competition and swifter technological advancements. However certain frequency bands will also in the future be used for specific purposes such as broadcasting.

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

a+b)

Denmark supports the proposed elements of the road map. As from 1 November 2009, when analogue terrestrial television is shut-off in Denmark, digital terrestrial television will be broadcast using five multiplexes (MUX). Four of these will use MPEG4 as the compression standard, thereby increasing transmission capacity. The last (MUX 1, which has been operating since 2006) will shift from MPEG 2 to MPEG 4 during 2012. Thus, all DTT receivers, sold in Denmark after 1 January 2012, should at least be based on MPEG4 or an even more efficient compression standard.

Denmark also supports the setting of standards for the ability of digital TV receivers to resist interference. In this context also the ability for cable-tv networks to resist interference should be addressed.

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

a)

Denmark shares the Commission's view on the potential gains of spectrum efficiency to be made by implementing new broadcasting technologies as they become available to operators and consumers. We also support the proposed collaboration between Member States to share network deployment plans. It has to be stressed, however, that e.g. a transition to DVB-T2 will require replacement of all existing receivers, as present receivers are generally not capable of receiving DVB-T2 signals. Therefore, a possible transition to DVB-T2 and the time horizon for such a transition should be decided on a national level, taking also present licenses into consideration.

b)

Denmark supports the approach suggested in the consultation. As low power / high density networks at this moment in time would impose severe investments both on network operators and

consumers Denmark is of the opinion that the proposed actions should be limited to requiring member states to exchange experience of SFN deployment.

c)

Denmark shares the view, that “frequency agile” systems or Cognitive radio applications could simplify spectrum coordination and increase efficient use of spectrum. The ECC Working Group Spectrum Engineering has set up a Project Team with the task to define 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”.

**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.**

On 22 June 2009 it was decided in Denmark, that the frequency band 790-862 MHz in the future should be used for other purposes than television, especially mobile broadband. We therefore strongly support the Commission proposal to take immediate action on this particular band.

We also agree, that no final implementation date should be specified in the technical harmonisation measures; instead, the measure should ensure that any Member State utilising the band 790-862 MHz for other services than television would do so in accordance with the technical parameters of the Decision. As recommended in the new RSPG Opinion on the digital Dividend, any EU harmonisation of technical elements such as channelling arrangements and common and minimal (least restrictive) technical conditions should be based on the outcome of the CEPT work in response to relevant EC mandates. An ECC Decision on channelling arrangements and minimal (least restrictive) technical conditions is expected to be finally agreed during the ECC meeting in October 2009.

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

See our response to 4.2

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

Denmark considers it to be of utmost importance that appropriate solutions are found for PMSE applications that currently use the frequency band 790-862 MHz. We therefore strongly support that a migration path is found for current PMSE applications.

One of the findings in CEPT Report 32 to the European Commission is that the demand for PMSE spectrum is increasing. “New” bands to be considered could be “white spaces” in 174-216 MHz and

the L band on the condition that the primary usage is unharmed. From the Danish point of view “new” frequency bands to be considered could also be 1350-1400 MHz, 1492-1518 MHz and 1785-1800 MHz for future PMSE use. We are of the view, that further CEPT work is needed to specify new frequency bands for PMSE, both individually licensed and general licensed applications (i.e. license exempt). Denmark therefore strongly supports a mandate from the European Commission in this respect. Although not being subject of the RSPG Opinion, the RSPG recognises that a sustainable solution for PMSE will need to be addressed by Member States.

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

Denmark can support that the Commission if necessary provide assistance to Member States in negotiations with non-EU countries.

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

Denmark supports the considerations put forward by the Commission, and looks forward to hearing more about the mechanisms to monitor external developments affecting the roadmap.

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

Denmark will complete the analogue to digital switchover on November 1, 2009 and therefore support the proposal. Because analogue switch-off takes place two months from now, no switch-off date will, however, be confirmed in national law.

### **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**

An ECC Decision on channelling arrangements and minimal (least restrictive) technical conditions is expected to be finally agreed during the ECC meeting in October 2009. Denmark intends to implement this ECC Decision as soon as possible.

We would also welcome an EC Decision on the 800 MHz band on technical harmonisation in order for Member States to take advantage of an early availability of equipment as well as economics of scale.