

Brussels, September 4, 2009

Response to European Commission on the Digital Dividend

On document "Transforming the digital dividend opportunity into social benefits and economic growth in Europe"

GENERAL REMARKS

DIGITALEUROPE welcomes this opportunity to express its interest on the use of the UHF spectrum Digital Dividend. In general, we regard the spectrum provided through the Digital Dividend of highest importance for the ICT industry, namely to improve broadcast services and to build-up Mobile Broadband access in particular for sparsely populated areas. This will be a milestone for helping to bridge the Digital Divide in Europe, to achieve the goals of the Lisbon agenda, and to sustain a leading position in the world.

For easy of reference the headlines below refer to the corresponding paragraph in the original document.

3.1 Benefits of a common way forward on the digital dividend

To achieve a maximum of economic value we believe that the European Commission (EC) is in a leading position to drive the spectrum provisioning and to harmonize the use of the spectrum within the entire European Union EU.

A lot of studies have outlined the economic benefits of opening the spectrum to new services and use cases. Even if their quantitative basis in economical terms may have to be reviewed in the new light of the economic crisis, it does not affect the general trend. A proper distribution of the UHF spectrum creating a win-win situation for both high quality digital broadcasting and mobile broadband services will certainly contribute to the recovery of the European economy. Only a common way forward taking into account the market dynamics of both digital broadcasting and digital mobile data communications will allow exploiting the full benefits. A harmonized approach to spectrum usage will maximize the spectrum value, minimize deployment cost and enable a Single European market through common European requirements.

3.2 An EU roadmap as a practical way forward

We understand that not all EU Member States can provide the required spectrum in a short timeframe and/or at the same time. But in order to motivate investments by the industry, a quick and also long-term certainty must be established in order to make efficient use of the spectrum.

For this reason, a roadmap on an EU basis is not just practical, but in our view essential, in particular for the realization of the 800 MHz sub-band. As pointed out above, harmonized use of the spectrum is a key pre-requisite to provide attractive solutions to the benefit of the European consumers. Harmonization allows cost efficient development for highest equipment quality. Moreover, it will maximize the consistency of the solution across the EU Member States.

3.3 An EU roadmap must offer sufficient flexibility

While we agree that the roadmap must include sufficient flexibility with regard to timing for the realization of the Digital Dividend, we would also like to emphasize the need for an overall common plan without unnecessary delay to achieve critical mass and maximum efficiency.

3.4 Endorsement of the roadmap by the European Parliament and Council

A broad political support for a common European regulatory framework for the Digital Dividend is important. However, any formal endorsement by the Parliament should not delay the substantial elaboration and adoption of a common European approach by all stakeholders. The multi-annual radio spectrum policy program as proposed as part of the expected revised regulatory framework seems to be adequate means to achieve the formal support by the political forces.

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

DIGITALEUROPE welcomes this roadmap element to improve consumers' experience of TV reception towards more quality (HDTV) and mobility. However, care is required for the introduction of new services which were not present when many of the numerous digital TV receivers currently in operation were designed. This situation will require careful network planning, implementation and deployment of these new services to avoid interference with existing TV receivers. The CEPT conclusions and recommendations on this topic should be taken into account.

Two cases must be distinguished:

Early deployment of digital mobile data communications and existing DTV receivers

As pointed out by CEPT, in some situation existing receivers may be impacted by the introduction of digital mobile data communications in 791-862 MHz. CEPT conclusions have been drawn from existing measurement surveys of a number of TV receivers against digital mobile data communications interference, as well as an analysis of the probability of the interference situations. The measurement surveys are a first indication of the overall performance of the receiver population, and more representative testing programs are being

conducted to check a larger proportion of installed receivers purchased over the last 10 years.

Digital Europe supports the principle that any introduced service in the 790-862 MHz band should protect all existing primary users below 790 MHz. Specifically, already acquired DTV and HDTV television sets should remain protected from interference in the future. This will require careful network planning and implementation of new network above 790 MHz. In some cases, it may also be appropriate and required to improve the selectivity of existing DTV and HDTV receivers through external or add-on equipment, without increasing the energy consumption of the receiver system. The feasibility, performance and cost of external or add-on equipment needs to be further studied, along with the principles of energy efficiency and minimum electronic waste by accelerated obsolescence of TV equipment. The responsibility to fit existing DTV and HDTV reception sets with external or add-on equipment should rely on the mobile services being introduced above 790 MHz.

Future DTV receivers

Future DTV receiver standards should take into account the harmonized spectrum arrangement in 790-862 frequency band as well as existence of other technologies, e.g. White Space Devices in order to improve the DTV receivers' ability to handle higher signal levels in 791-862 MHz. Further implementation and cost studies are required prior to standard definition, in order to e.g. determine the achievable DTV selectivity and avoid impact on energy efficiency. Any new standard requirement should be introduced carefully, taking into account each country's implementation timeline and respecting the industry product cycle.

Concerning the White Spaces, CEPT studies should be taken into account when developing the selectivity requirement for new DTV receivers.

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

Spectrum is an increasingly valuable and scarce resource, and, therefore, all techniques to develop the spectral efficiencies, along with the overall energy efficiency, and environmental respect of all Services should be encouraged.

The terrestrial broadcasting of HDTV has recently improved its spectrum efficiency by using MPEG4 codecs (e.g. France DTTB, operational since last fall). Moreover, since the technology has become available recently, DVB-T2 implementations are to follow (e.g. UK). Experience shows that after a country-wide roll-out (populations of over 60 million inhabitants for the two countries mentioned above), a stability phase of 5-10 years will be required.

It is currently unclear whether DVB-T2 will be rolled out in Multi-Frequency Network (MFN) or Single Frequency Network (SFN). However, as the receiver technology is identical for both deployment topologies, generalized SFN deployment may be an opportunity to further

improve network efficiency, with no impact on the customers. However, the feasibility of SFN needs further studies.

Coexistence between mobile and broadcast services over time requires adequate interference resolution and spectrum efficiency management. This is essential to make the use of the Digital Dividend without waste and limiting the cost of infrastructure.

We also recognize that other Regions are considering wider spectrum arrangements for mobile broadband use (e.g. 2x50 MHz) and that in the longer term Europe may be disadvantaged by being constrained to 72 MHz. Therefore, a longer term plan should also be envisaged in Europe.

In addition, the use of TV white spaces within the lower part of the band (470 – 790 MHz) is studied as a way to get additional spectrum as needs appear. This is currently under consideration in CEPT. See also below.

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.

DIGITALEUROPE welcomes this element of the roadmap also confirming our position that the 800 MHz band should be assigned for mobile broadband communication on a technology and service neutral basis possibly with coverage incentives for areas with low population density (target is to ensure a larger mobile data network footprint). We are pleased to hear that the Commission study shows that opening up the digital dividend to wireless broadband services creates a value between EUR 3 billion and EUR 97 billion. We also believe that the benefits of a harmonized spectrum usage will significantly contribute to this.

Technology neutrality and sharing of a band which was previously entirely devoted to broadcast services implies that existing DTV receiver equipment should not be interfered by the new mobile services. The CEPT results on coexistence and the proposed concept to achieve this should be the basis.

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

The potential of white spaces technology will be assessed in CEPT. The Commission should take into account CEPT conclusions, while keeping in mind the following:

- White space technologies can potentially provide additional spectrum resource for local area applications, in some areas.
- Any introduction of white space technologies must protect existing priority users.
- The technical evolution of broadcast networks towards increased spectrum efficiency may reduce the availability of TV white spaces over time. If large SFNs will become standard (especially in areas with high density of population), the opportunity window for TV white space devices may be limited. On the other hand, the common

requirement to have local content inserted into DTT services will limit the number of truly national SFNs to be deployed.

- It should also be considered to try to have more licensed spectrum for mobile broadband in the range 470 – 790 MHz.

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

New spectrum for these applications is needed. Possible solutions which are currently also discussed within CEPT should also consider allocations outside the UHF band. Please take also into account implications underlined in bullet point 4.2.

4.6 More effective cross-border coordination with non-EU countries

DIGITALEUROPE has strong support for this role of the Commission. Possible fields of action may include examples such as ARNS-mobile co-existence and preparations for WRC-11).

4.7. Addressing future challenges

DIGITALEUROPE supports the availability of a mechanism to monitor all developments which may affect the roadmap. Since the related market is changing quickly, a yearly or two years timeframe seems adequate. Close follow-up of future spectrum demand and further assignments on demand according to the need and capabilities to maximize the economical benefits will be essential.

5.1. Accelerating analogue switch-off by 2012

Bearing in mind the significance of the Digital Dividend as emphasized above, it is of utmost importance for Europe that the analogue switch-off takes places as early as possible, but not in any case later than planned. This should be part of the overall roadmap as well, also emphasizing the coordinated approach along with this exercise. In this context, we also believe that the European Commission may take a lead in supporting the Member States for the analogue TV switch-off (e.g. funding network re-planning or receiver upgrade if needed).

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

For the industry, a quick and sustainable approach towards providing the 800 MHz band will be the key to invest. Delaying the process will positively lower the benefits to the economy

and society as a whole. A harmonised approach is essential for reaching the expected benefits, by relying on harmonized standards and harmonized use of equipment for critical mass and cost efficiency in the consumer market. To ensure this timely and harmonised opening, the proposed submission of a draft EC decision to RSC together with the recommendation to the Member States to refrain from country specific solutions is explicitly welcome by DIGITALEUROPE.

ABOUT DIGITALEUROPE

DIGITALEUROPE, the organisation formerly known as EICTA, is the voice of the European digital technology industry, which includes large and small companies in the Information and Communications Technology and Consumer Electronics Industry sectors. It is composed of 61 major multinational companies and 40 national associations from 28 European countries. In all, DIGITALEUROPE represents more than 10,000 companies all over Europe with more than 2 million employees and over EUR 1,000 billion in revenues.

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