

Brussels, April 16, 2013

## **DIGITALEUROPE Response to the RSPG Opinion on Strategic Challenges facing Europe in addressing the Growing Spectrum Demand for Wireless Broadband**

DIGITALEUROPE is pleased to respond to the Radio Spectrum Policy Group consultation on its Opinion “strategic challenges facing Europe in addressing the growing spectrum demand for wireless broadband”. DIGITALEUROPE appreciates the thorough work conducted by the RSPG and supports the overall recommendations made in the Opinion. We believe this Opinion provides a short to long term spectrum roadmap meeting Radio Spectrum Policy Programme objectives and positions the EU in a global leadership role while clearly identifying the challenges that need to be addressed.

DIGITALEUROPE’s membership comprises companies and industry associations which are engaged in the Digital Television and mobile communication businesses and is keen to see both industry sectors flourish and prosper. European spectrum policy is strategically important in this context. DIGITALEUROPE views on the specific bands highlighted by the RSPG Opinion are thus derived from this primary objective.

### **UHF & 700 MHz**

DIGITALEUROPE agrees with the recommendation by the RSPG to the Commission to develop, in cooperation with the Member States, a long-term strategic policy on the future use of the UHF band (470-790 MHz). Taking into account, the interests of both incumbent and potential new spectrum users in a long-term perspective, DIGITALEUROPE agrees with the recommendation by the RSPG to study the future of DTT including the concept of converged/cooperative networks, taking into account all the relevant aspects (legal, commercial, regulatory, technical).

DIGITALEUROPE recommends making available the 700 MHz band for mobile broadband in a timely manner as a corner stone in delivering on European Digital Agenda targets, particularly to sparsely populated and remote areas in Europe, provided that the transition is managed by administrations in a timely manner and be properly resourced, while applying accurate frequency planning and good spectrum engineering practices for Digital Television. In this context, DIGITALEUROPE considers that the following aspects are of importance:

- There should be no disruption of the existing DTT services to consumers
- Deployed equipment should be duly taken into account

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- Consumers should be appropriately informed
- Interference problems should be minimized and solved in the least disturbing way for the consumer
- Mitigations measure should be pro-actively taken in order to avoid the risk of interference, to define clear responsibilities (especially for the service causing interference) and to provision financial resources to tackle the potential disturbances
- Time plans for the transition developed with the Consumer Electronics Industry
- Transition to DVB-T2 is an adequate measure to facilitate the release of the 700 MHz band

Regarding the channelling arrangement for mobile broadband in the 700 MHz, DIGITALEUROPE supports a frequency arrangement in ITU Region 1 that facilitates a global solution, leverages on standardization activity (3GPP Band 28) and is compatible with EU 800MHz band (3GPP Band 20). This allows economies of scale and roaming capabilities across all ITU regions.

DIGITALEUROPE published a position paper on the 700 MHz issue<sup>1</sup>.

DIGITALEUROPE also published a guideline on LTE interference management<sup>2</sup>. The main aspects are underlined in annex.

## 1.5 GHz

DIGITALEUROPE supports the harmonization of the 1452-1492 MHz band for mobile broadband Supplemental Downlink (SDL) and agrees with the recommendation made by the RSPG to the Commission to adopt complementary harmonization measures, to those defined by CEPT, to further promote the use of this band for SDL. In this regard, DIGITALEUROPE published in 2012 a position paper on the role of 1452-1492MHz to support the delivery of the EU RSPP objectives<sup>3</sup>. In addition, DIGITALEUROPE supports the studies to introduce mobile broadband in other sub-bands in this frequency range (e.g. 1350-1375, 1375-1400, 1427-1452 and 1492-1517 MHz) as considered by the RSPG.

## 2 GHz MSS

DIGITALEUROPE supports the use of the 2 GHz MSS Band ("S-Band") for terrestrial mobile broadband as it can provide a 2x 30 MHz extension to the massively used UMTS core band at 2.1 GHz.

## 2.3 GHz

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<sup>1</sup> [http://www.digitaleurope.org/DocumentDownload.aspx?Command=Core\\_Download&EntryId=522](http://www.digitaleurope.org/DocumentDownload.aspx?Command=Core_Download&EntryId=522)

<sup>2</sup> [http://www.digitaleurope.org/DocumentDownload.aspx?Command=Core\\_Download&EntryId=523](http://www.digitaleurope.org/DocumentDownload.aspx?Command=Core_Download&EntryId=523)

<sup>3</sup> [http://www.digitaleurope.org/DocumentDownload.aspx?Command=Core\\_Download&EntryId=155](http://www.digitaleurope.org/DocumentDownload.aspx?Command=Core_Download&EntryId=155)

DIGITALEUROPE supports the harmonization of 2300-2400 MHz for mobile broadband including the use of Licensed Shared Access (LSA) agreeing with the recommendation made by the RSPG to the Commission to adopt complementary measures to further promote LSA use of this band between mobile broadband and other services for countries where clearing of the band from incumbents is impossible or cannot be completed in a timely manner. In this context, DIGITALEUROPE published in 2012 a position paper on the role of the 2.3 GHz band to support the delivery of the EU RSPG objectives<sup>4</sup> and a position paper on LSA<sup>5</sup>.

## **2.7 – 2.93 GHz**

DIGITALEUROPE is of a view that the range 2700 – 2930 MHz will play a role in the provision of mobile broadband services to enhance future capacity requirements especially while considering that the band is adjacent to the band 2500 – 2690 MHz and that the range is globally harmonized.

## **3.8 – 4.2 GHz**

DIGITALEUROPE agrees with RSPG views that 3800-4200 MHz will play a role in the provision of mobile broadband service to enhance future capacity requirements especially in urban areas and the recommendation made by the RSPG to the Commission to study the possibility of sharing in Europe between the Fixed Satellite Service and terrestrial mobile broadband services using LSA in this frequency range, while recognizing that the situation within and outside Europe may differ.

## **5 GHz**

DIGITALEUROPE supports the examination by the Commission of the extension of the 5 GHz band that would result in RLAN devices being able to operate within one large uninterrupted block of frequencies starting from 5150 MHz up to 5925 MHz. This would allow several 160 MHz non-overlapping channels to be utilized in the band for Wi-Fi. Access to additional 5 GHz spectrum will assist meet the demand for spectrum suitable for off-loading mobile traffic. CEPT would need to undertake as soon as possible a technical study on the coexistence of RLAN with other users in the 5350 – 5470 MHz and 5725 – 5925 MHz.

## **Future Additional Resources**

Industry forecasters believe that the requirement for greater bandwidth and faster delivery of data intensive applications will continue to grow well beyond the current 2015 target date for

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<sup>4</sup> [http://www.digitaleurope.org/DocumentDownload.aspx?Command=Core\\_Download&EntryId=155](http://www.digitaleurope.org/DocumentDownload.aspx?Command=Core_Download&EntryId=155)

<sup>5</sup> [http://www.digitaleurope.org/DocumentDownload.aspx?Command=Core\\_Download&EntryId=519](http://www.digitaleurope.org/DocumentDownload.aspx?Command=Core_Download&EntryId=519)

the RSPP. Many predict rapidly increasing growth in mobile broadband services. Additionally mobile broadband market expectations are fuelling intensive well-funded research programmes driving an increasing pace of technological innovation in services, applications and devices. These developments will continue to place unrelenting pressure on the radio spectrum resources required to deliver the wireless broadband services that will drive the social and economic benefits for European consumers and businesses in 2020 and beyond.

Considering the long lead time involved in preparing the radio spectrum framework to realise these ideas, DIGITALEUROPE proposes that the RSPG additionally recommends a programme of work that complements the currently proposed spectrum roadmap towards the higher frequency bands, for consideration in the future, where the ability to accommodate greater system bandwidths is possible. Already, research in technology and in materials are bringing closer the possibility to activate mobile broadband services in much higher frequency bands that today may appear difficult to exploit.

## Annex:

### DIGITALEUROPE Guidelines on LTE Interference Management

DIGITALEUROPE published a guideline on LTE interference management<sup>6</sup>. DIGITALEUROPE would like to underline some of the aspects:

- Many cases of interference experienced so far with LTE800 are due to components outside DTT receivers (e. g. cables or amplifiers), so that improved receiver immunity is not necessarily the key to good coexistence with mobile.
- Improved coexistence can be achieved by many means - also by additional requirements and/ or measures on the new entrant spectrum users. From the practical perspective, new entrants can be easily adapted upfront for a better coexistence whilst equipment for incumbent services are always confronted to legacy aspects.
- The suggested review of ETSI and CENELEC standards applicable to DVB-T and DVB-C reception should be undertaken only once a long term vision with a clear European roadmap on the band 470 – 790 MHz was established. This would improve the planning security of the CE industry better than several successive changes of immunity requirements.
- Complete receiver interference immunity to LTE signals may leads to unrealistic requirements.
- The TV reception standards were developed for mass market receivers optimized in cost and performance for a DTT only interference environment. Changing the paradigm may require a fundamental change of their RF components concept only achievable with significant investments and cost impact for the CE Industry. The potential return on investments can only be evaluated with a clear visibility on the future evolution of the DTT platform. The recognized need for European wide harmonization and long term planning perspective for the mobile industry is also valid for Consumer Electronics industry

DIGITALEUROPE invites the RSPG, EC and administrations to work with the Consumer Electronics Industry on realistic roadmaps and transitions.

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<sup>6</sup> [http://www.digitaleurope.org/DocumentDownload.aspx?Command=Core\\_Download&EntryId=523](http://www.digitaleurope.org/DocumentDownload.aspx?Command=Core_Download&EntryId=523)

## ABOUT DIGITALEUROPE

**DIGITALEUROPE** represents the digital technology industry in Europe. Our members include some of the world's largest IT, telecoms and consumer electronics companies and national associations from every part of Europe. DIGITALEUROPE wants European businesses and citizens to benefit from digital technologies and for Europe to grow, attract and sustain the world's best digital technology companies.

**DIGITALEUROPE** ensures industry participation in the development and implementation of EU policies. DIGITALEUROPE's members include 57 global corporations and 33 national trade associations from across Europe. In total, 10,000 companies employing two million citizens and generating €1 trillion in revenues. Our website provides further information on our recent news and activities: <http://www.DIGITALEUROPE.org>

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