



**Liberty Global response to the Commission’s consultation “Transforming the digital dividend opportunity into social benefits and economic growth in Europe” published 10<sup>th</sup> July 2009**

This response is provided on behalf of Liberty Global Europe BV on behalf of itself and other members of its group (together LGI). Liberty Global’s ultimate parent company, Liberty Global, Inc is the leading international cable operator offering advanced video, voice and broadband internet services to connect its customers to the world of entertainment, communications and information. Liberty Global operates state-of-the-art networks that serve approximately 16 million customers across 15 countries principally located in Europe, Japan, Chile, and Australia. Our European cable operations – branded UPC, Cablecom and Telenet - cover 11 EU Member States in both western and central Europe and include significant programming businesses<sup>1</sup>.

Summary of LGI’s views

LGI welcomes this opportunity to express its views on the re-use of Digital Dividend spectrum between 790-862 MHz. In general, we recognise the societal and broader economic benefits of the re-use of this both as a means to improve broadcast services and to build-up Mobile Broadband access in particular, and with an emphasis upon, reaching sparsely populated rural areas. We fully concur with the Commission’s assessment that re-using this spectrum will help to bridge the Digital Divide in Europe, and will contribute to economic growth in line with the Commission’s Economic Recovery Plan.

However, and notwithstanding the wider benefits of using the digital dividend spectrum resources for new broadband networks, in opening up the 800MHz band to fixed/mobile broadband and modifying current service’s coexistence, we are concerned that millions of customers and viewers could be negatively impacted by interference to their existing television and broadband services. More specifically, the concern is that proposed use of the upper spectrum of the UHF band for LTE based mobile communication applications will interfere with the transmission of signals via the infrastructure of cable operators to their customers. Today LGI operations across Europe currently use the frequency range up to 862 MHz to provide analogue and digital television, high-speed data (including services over 100 Mb/s), telephony and other multimedia services. Over time, our intention is to use frequencies in our network up to 1 GHz

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<sup>1</sup> [www.lgi.com](http://www.lgi.com)

To our regret, these well-substantiated interference concerns have not been given sufficient emphasis in the Commission's communication, an oversight of particular importance as the reallocation of spectrum necessitates significant investment in new networks. In order to plan these investments it is a business necessity for any obligations required to resolve these interference problems to be known from the outset. Such obligations may extend to the use of safeguards in national frequency plans and the allocation of individual frequencies in the digital dividend spectrum preventing potential damage and loss of capacity for the operators of the fixed infrastructures.

As such we would encourage the Commission to undertake a full impact assessment of the potential interference with existing customer equipment as part of its EU roadmap initiative. In addition, and as recognised in the Dutch Ministry of Economic Affairs consultation on digital dividend<sup>2</sup>, the interference issues are not limited to set-top boxes, but may also involve cabling and TVs and set-top boxes for digital terrestrial over-the-air reception. It is also important to acknowledge that initial study results indicate that this may not involve limited interference (e.g. slight noise), but a level of interference that makes it impossible for consumers to appreciate in any worthwhile manner the contents of broadcasts or to be able to use their high speed internet services due to interference from mobile communication equipment. Such a negative effect on the quality of TV and data signals for consumers could severely damage the confidence of consumers in digital services.

These findings have been further corroborated in tests undertaken by several cable operators in Germany, Austria and the UK in 2009 indicating that new LTE services could cause interference with the services provided both to TV viewers and high-speed data users on cable networks and which were submitted to CEPT SE 42

The industry's pan European association, Cable Europe, will present further validation of the findings already presented, and will cover interference concerns over a wide range of customer equipment and in-house networks, not just cable network. We would encourage that the Commission's policy guidance to NRAs and to the RSPG considers very carefully these findings, and should seek to resolve issues of interference on its merits, taking into account the EU's goals for electronic communications overall.

Given the wide ranging impact the reallocation of this spectrum will have on existing consumers' quality of service, we believe it is essential that the Commission give clear guidance to NRAs and the RSPG prior to spectrum award and reallocation procedures are undertaken at national level.

As such and at this stage of policy development, the EU roadmap must more explicitly articulate how it will take into account the interests of millions of TV

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[http://www.ez.nl/Onderwerpen/Betrouwbare\\_telecom/Frequentiebeleid/Consultaties\\_en\\_informatieve\\_papers/Consultatie\\_beleidsvoornemen\\_inzake\\_de\\_verdeling\\_van\\_het\\_resterende\\_Digitale\\_Dividend\\_in\\_de\\_UHF\\_frequentieband/Consultation\\_document\\_Digital\\_Dividend\\_in\\_the\\_UHF\\_frequency\\_band\\_470\\_862\\_MHz](http://www.ez.nl/Onderwerpen/Betrouwbare_telecom/Frequentiebeleid/Consultaties_en_informatieve_papers/Consultatie_beleidsvoornemen_inzake_de_verdeling_van_het_resterende_Digitale_Dividend_in_de_UHF_frequentieband/Consultation_document_Digital_Dividend_in_the_UHF_frequency_band_470_862_MHz) (page 19)



viewers, cable broadband and telephony customers by means of careful network planning, implementation and deployment to avoid interference with existing receivers, including cable based network receivers.

### ***1. A unique opportunity to contribute to economic recovery***

Whilst we fully concur with the Commission's assessment that re-using this spectrum will help to bridge the Digital Divide in Europe, and will contribute to economic growth in line with the Commission's Economic Recovery Plan. However, the interference issues noted mean that the re-use of this spectrum could also harm the offer of advanced services and so have a negative impact on the Digital Divide.

### ***2. What has been achieved so far?***

#### ***Extensive consultations with main interested constituencies***

As already set out, much to our regret, the well substantiated interference concerns from a range of cable operators have not been given sufficient emphasis in the Commission's communication, an oversight of particular importance as the reallocation of spectrum necessitates significant investment in new networks, and in order to plan these investments it is a business necessity for any obligations required to resolve these interference problems to be known from the outset.

LGI believes it is essential that EU policy guidance adopts a neutral stance regarding the possible use of any 'digital dividend'. In our view, the interest of a major stakeholder to this process – the European consumer of digital TV services – has been largely overlooked. The Commission needs to take more effective account of how the current programme to re-use the 790-862 MHz spectrum could negatively affect millions of EU consumers.

#### ***3.1 Benefits of a common way forward on the digital dividend***

LGI believes the European Commission has a critical role in driving spectrum provisioning in a harmonized fashion across the entire EU. Accordingly, the proposed methods for resolving the interference issues can only be applied effectively with the EU Commission taking a firm lead.

Within its toolkit to resolve these issues, the Commission must consider the use of safeguards in national frequency plans and the allocation of individual frequencies in the digital dividend spectrum preventing potential damage and loss of capacity for the operators of the fixed infrastructures. It should also account for the potential costs to viewers and industry, and where appropriate, propose adequate compensation. Whilst the consultation is clear as to the economic value of proposed



EU coordination of digital dividend spectrum in comparison with national plans, it is silent as to the economic cost to existing viewers and industry players.

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

In relation to the Commission's proposals for setting standards for the ability of digital TV receivers to resist interference (4.1.b), we agree that a close cooperation of Member States within both CENELEC and ETSI must occur. We firmly believe that ETSI must be involved in the process.

LGI also believes that the initial ECC view, that the potential interference is 'only an EMC issue', is not consistent with the existing policies of the Commission and the present EMC standards. Existing customer equipment on the market conforms to existing EMC standards.

The rules will be changed by the proposed reallocation of the 790-862 MHz band for LTE such that domestic TV equipment, other customer premise equipment and associated ancillaries, that continue to tune this band, will be vulnerable to interference from the new service. In addition, such interference is also likely in channels adjacent to 790 MHz and further down the band due to intermodulation.

***4.7 Addressing future challenges***

The Commission proposes to establish a mechanism to monitor external developments affecting the roadmap. The proposed "mechanism" should carry out full impact assessments of any changes proposed in spectrum user in order not to disadvantage television viewers, users of broadband internet services and other stakeholders.