



Europe

## Position Paper

### Comments on the draft Radio Spectrum Policy Group (RSPG) Opinion on the Radio Spectrum Policy Programme (RSPP)

30 April 2010

GSMA Europe would like to thank the RSPG for providing stakeholders the opportunity to comment on its Draft Opinion on the RSPP. Our input, which covers each section of the draft Opinion in turn, is summarised below and detailed in the pages that follow.

- Achieving the EU2020 targets of broadband for all will be very demanding in terms of capacity *and* coverage. Therefore, it is of utmost importance that additional spectrum is made available for mobile broadband communication.
- A short term objective should be to mandate a 2013 EU-wide deadline for the release of harmonized digital dividend spectrum. An alternative would be for Member States to commit to the harmonised release of 790-862 MHz by 2012, and then ensure the band is available for deployment in all markets by 2015.
- In the longer term, we believe that a total of 1 GHz spectrum, including the current allocations, should be made available to wireless communications services by 2020. All additional spectrum should be identified below 5 GHz with a significant part below 1 GHz, as well as between 1 and 2.5 GHz
- The RSPP should look at how efficient spectrum use can help boost the environment. The mobile industry's growth will continue to be accompanied by significant efforts to reduce its own direct emissions from the radio network, buildings, energy consumption and emissions from transport, and by initiatives to reduce emissions from other sectors. For further details, please refer to our Green Manifesto which is available online at: [http://gsmworld.com/ourwork/mobile\\_planet/mobile\\_environment/green\\_manifesto.htm#nav-6](http://gsmworld.com/ourwork/mobile_planet/mobile_environment/green_manifesto.htm#nav-6)
- The World Radio Communication Conference (WRC) in 2015/2016 will be the appropriate place to allocate more spectrum for mobile broadband purposes. Europe should therefore make an input to agenda item 8.2 of the WRC-12 and propose such an agenda item for WRC-15/16.

The GSMA represents the interests of the worldwide mobile communications industry. Spanning 219 countries, the GSMA unites nearly 800 of the world's mobile operators, as well as more than 200 companies in the broader mobile ecosystem, including handset makers, software companies, equipment providers, Internet companies, and media and entertainment organisations. The GSMA is focused on innovating, incubating and creating new opportunities for its membership, all with the end goal of driving the growth of the mobile communications industry. In the European Union the GSMA represents over 100 operators providing more than 600 million subscriber connections across the region.

## **Introduction**

GSMA Europe supports the RSPG's view that the RSPP should cover not only the period up to 2015 but beyond it as well. The RSPP represents a key innovation in EU spectrum policy that will have significant implications for all industry stakeholders. It will increase certainty over spectrum availability and will therefore encourage long term investment.

We also welcome the RSPG proposal that the RSPP should be continuously monitored and subject to a mid-term assessment including a public consultation and stakeholder workshops.

## **I. Contribution to the EU2020 vision**

### **The role of spectrum**

Spectrum is the electromagnetic lifeblood of the mobile economy and key to underpinning the Digital Agenda component of the EU2020 vision. The mobile industry contributes 138 billion euro to GDP, equivalent to a full percentage point of the total GDP for the European Economic Area, and is delivering greater added value per megahertz of spectrum than any other industry<sup>1</sup>. Mobile is also the most ubiquitous communications platform in Europe, exceeding fixed line and PCs and Europe has the highest mobile penetration in the developed world.

### **Broadband for All**

Achieving the EU2020 targets of broadband for all will be very demanding in terms of capacity *and* coverage. Policies should ensure that funds used to boost geographic coverage are technology neutral and that any funds awarded to help bridge the digital divide should be allocated via competitive tender and be non-discriminatory. Today, mobile industry uses about 4% of all spectrum below 10 GHz in Europe but the spectrum presently available is not sufficient to meet the increasing demand. Data traffic on mobile broadband networks is growing exponentially as consumers and business users increasingly turn to smartphones and connected laptops to access the Internet, email, business applications and social networking services. The rapid rise in mobile data usage will yield major social and economic benefits as long as there is sufficient spectrum available to meet demand. Therefore, it is of utmost importance that additional spectrum is made available for mobile broadband communication. The Federal Communications Commission (FCC) presented its National Broadband Plan to Congress on 16<sup>th</sup> March 2010 and proposed making available 500MHz of new spectrum in the next 10 years (of which 300 MHz should be made available for mobile use in 5 years) to expand mobile broadband coverage across the USA. A European strategy is needed to bring the full power of the Internet to cellular mobile devices and maintain Europe's leadership in information and communication technologies.

### **Digital Dividend**

GSMA Europe supports the RSPG invitation to the European Parliament and the Council to consider the coordinated availability of the 800 MHz band for ECS other than broadcasting. We believe the most important short term objective should be to mandate a 2013 EU wide deadline for the release of harmonized digital dividend spectrum. An alternative would be for Member States to commit to the harmonised release of 790-862 MHz by 2012, and then ensure that the band is available for deployment in all markets by 2015. For consumers to reap the full benefits of the digital dividend, governments need to provide clear, early indications of their intentions so that mobile operators can plan their network investments. National Regulatory Authorities should consider establishing mechanisms to incentivise efficient usage.

### **More spectrum required**

The mobile industry also urges the RSPG to recommend targets for increasing the amount of radio spectrum allocated to wireless communications services. Given increasing demand for such services and to provide higher bandwidths, we believe that a total of 1 GHz spectrum - including the current

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<sup>1</sup> See for example, "The economic impact of the use of radio spectrum in the UK", Europe Economics (2006)

allocations should be made available to wireless communications services by 2020. All additional spectrum should be identified below 5 GHz with a significant part below 1 GHz, as well as between 1 and 2.5 GHz. The mobile industry is committed to supporting the Commission by identifying potential bands, and promoting this ambitious agenda at the international and Member State level. Only with sufficient harmonised spectrum will Europe be able to maintain its leadership position in mobile internationally.

### **Effective spectrum use to help reduce carbon emissions**

We strongly agree with the RSPG's view that effective use of spectrum can contribute to reducing carbon emissions across the economy. The mobile industry's growth will continue to be accompanied by significant efforts to reduce its own direct emissions from the radio network, buildings, energy consumption and emissions from transport, and by initiatives to reduce emissions from other sectors. The mobile industry forecasts that it will reduce its total global greenhouse gas emissions per connection<sup>2</sup> by 40% by 2020 compared to 2009. Previous analyses have shown how the mobile and ICT sector can enable emission reductions from other sectors that are five times larger than its own greenhouse gas footprint<sup>3</sup>. For further details, please refer to our Green Manifesto which is available online at: [http://gsmworld.com/ourwork/mobile\\_planet/mobile\\_environment/green\\_manifesto.htm#nav-6](http://gsmworld.com/ourwork/mobile_planet/mobile_environment/green_manifesto.htm#nav-6).

The number of mobile connections is set to rise by 70% to 8 billion by 2020 as the industry builds out a new generation of mobile broadband networks bringing billions of people into the information economy. Despite this growth, the mobile industry forecasts that its total emissions will remain constant at 245 mega-tonnes of carbon dioxide equivalent (Mt CO<sub>2</sub>e) - equivalent to 0.5%<sup>4</sup> of total global emissions in 2020, or the greenhouse gas emissions of the Netherlands. Mobile operators plan to work with handset vendors to ensure that the energy consumed by a typical handset is reduced by 40% in standby and in use by 2020. Mobile operators will also work with equipment vendors to ensure that the life cycle emissions of network equipment components are reduced by 40% in the same timeframe.

Mobile technologies are already being used to reduce greenhouse gas emissions and costs across a wide range of sectors of the economy, using SIM cards and radio modules embedded in machines and devices to deliver smart, intelligent solutions. By 2020 we estimate that mobile technologies could lower emissions in other sectors by more than 4.5 times its own footprint, the equivalent of taking one of every three cars off the road<sup>5</sup>. Mobile communications can also make it straightforward for individuals to monitor their own carbon footprint, while being an effective channel for advice and suggestions to consumers on how to change their behaviour to cut their emissions. The mobile industry could enable greenhouse gas emissions reductions of 1,150 Mt CO<sub>2</sub>e - twice the emissions of the United Kingdom<sup>6</sup> in 2020. These emission reductions would originate in sectors such as power (350 MtCO<sub>2</sub>e), buildings (350 Mt CO<sub>2</sub>e), transportation and logistics (270 Mt CO<sub>2</sub>e), and dematerialisation (160 Mt CO<sub>2</sub>e).

In order to assist the mobile industry to enable emissions reductions in other sectors, it is vital that policymakers consider the following:

- Including mobile solutions in government policies and programmes with respect to smart grids, buildings and transport.
- Facilitating a common framework to measure the mobile industry's energy and environmental performance, and that of other sectors, for example by aligning national and regional methodologies with those being developed by ETSI and ITU in conjunction with the mobile industry and other private sector players.<sup>7</sup>

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<sup>2</sup> Connections do not include Machine to Machine SIMs

<sup>3</sup> SMART 2020, The Climate Group and GeSI, "Enabling the low carbon economy in the information age", 2008

<sup>4</sup> Irbaris analysis; SMART 2020, The Climate Group and GeSI, "Enabling the low carbon economy in the information age", 2008

<sup>5</sup> The mobile industry's 1,150mt CO<sub>2</sub>e emission reduction is equivalent to 285m cars out of 900m cars on the road worldwide in 2009, assuming annual emissions per car of 4,000 kg CO<sub>2</sub>e

<sup>6</sup> UNFCCC data, 2009

<sup>7</sup> Four of Europe's leading industry associations, representing the global ICT and high tech sectors, have joined forces to drive global energy efficiency initiatives and launch an industry-led ICT for Energy Efficiency (ICT4EE) Forum in Europe and will report directly to the Commission. For more information about ICT4EE, visit: [www.ict4ee.eu](http://www.ict4ee.eu).

- Supporting broadband infrastructure deployment that has become as important today as roads, railways and ports were in the 20<sup>th</sup> century, by ensuring the mobile industry has access to newly available harmonised spectrum and by supporting the roll out of energy efficient networks through the streamlining of planning approval and the provision of investment incentives.
- Encouraging cross-sector collaboration between the mobile and other ICT sectors and the transport, buildings and power sectors, especially with respect to the development of open standards to ensure interoperability and drive scale efficiencies.
- Demonstrating leadership by greening operations in the public service, e.g., by procuring embedded mobile-enabled smart building technologies in schools and government departments, and promoting increased teleworking amongst public sector employees.
- Building awareness of mobile and other ICT technologies, through education of users, and helping to facilitate the behavioural changes that will create transformative reductions in greenhouse gas emissions.
- Supporting the development and piloting of new technologies by incentivising the increased deployment of embedded mobile solutions with respect to smart grids, buildings and transport.

## **II. Spectrum governance in the EU**

GSMA Europe believes that the protection of spectrum as well as the improved compatibility of systems are important and should also be addressed in the RSPP. It is not sufficient to facilitate access to spectrum or to make spectrum use more flexible, it is also important to safeguard interference free use of spectrum. This is normally done by “Harmonised Standards” and “EMC Standards”. We believe a more balanced approach concerning radiation limits is needed to the benefit of the protection of spectrum. Therefore the development of these standards and EMC-limits needs to be given more attention by the Commission and by regulators.

In addition the compatibility of systems and system components needs to be improved. The current discussion concerning the future use of the band 790-862 MHz by mobile broadband shows that the immunity of cable TV systems and connected receivers and the selectivity of TV receivers are vital parameters regarding the coexistence of radio or wire-line systems. Thus network and receiver components have to be regarded as part of an overall telecommunication eco-system and not as stand alone objects. At least some minimum requirements for receivers and networks have to be defined and respected to enable coexistence of all parties involved.

## **III. External relations**

GSMA Europe supports the RSPG's view that the European Commission (EC) should identify priority areas for forthcoming WRC agendas as soon as possible. GSMA Europe believes that the World Radio Communication Conference (WRC) in 2015/2016 will be the appropriate place to allocate more spectrum for mobile broadband purposes. Europe should therefore make an input to agenda item 8.2 of the WRC-12 and propose such an agenda item for WRC-15.

GSMA Europe believes that CEPT positions should be used wherever possible, but there may be two different roles for EC to play. Firstly to coordinate EU member states positions in preparation for CEPT negotiations, and secondly as a fall back in cases where there is no agreement on a common CEPT position.

## **IV. Spectrum policy objectives**

GSMA Europe welcomes the spectrum policy objectives identified by the RSPG for the RSPP and would like to emphasise two points:

The first, as highlighted above, is the importance of either mandating a 2013 EU wide deadline for the release of harmonized digital dividend spectrum, or encouraging Member States to commit to the

harmonised release of 790-862 MHz by 2012, and then ensuring the band is available for deployment in all markets by 2015.

The second looks to the longer term and proposes supporting that a total of 1 GHz spectrum, including current allocations, should be made available to wireless communications services by 2020. All additional spectrum should be identified below 5 GHz with a significant part below 1 GHz, as well as between 1 and 2.5 GHz.