



GSM Association Response to ICP-Anacom's Public Consultation on the Digital Dividend May 2009

OVERVIEW

The GSMA welcomes the opportunity to respond to ICP-Anacom's consultation on the principles and strategy for the switchover from analogue to digital broadcasting in Portugal.

The characteristics of UHF spectrum mean that it can comfortably be shared by mobile, TV and potentially other service providers (eg public safety). The GSMA believes at least 100MHz of digital dividend spectrum (ideally an allocation of 2 x 20 MHz per operator, which would lead to a total of 132MHz) can be freed for mobile services without impacting future capacity needs for broadcast TV services, as digital TV is between five and ten times more spectrally efficient than analogue. From a mobile network perspective, the excellent propagation characteristics of UHF spectrum mean that fewer base stations are required, making it much cheaper to provide mobile broadband coverage than over 2100MHz¹. Networks can therefore be rolled out and services delivered to consumers more quickly and cost-effectively.

The GSMA would particularly like to comment on the issue of new services that might be available in the 470-862MHz bands. The GSMA believes that there is sufficient spectrum for Portugal to make the bands 790-862MHz available for new mobile services. This frequency band has been identified by the ITU for mobile broadband services and is consistent with the bands being studied by the CEPT to develop a European-wide band plan for mobile broadband services. The band represents less than 25% of the spectrum currently used for terrestrial broadcasting so there is sufficient spectrum within the UHF band to deliver the most significant benefits of digital broadcasting, as well as allowing the assignment of the harmonised 790-862 MHz bands to mobile broadband. This will lead to the best outcome for Portuguese citizens and allow them to enjoy much greater choice of television content, and to benefit from greater broadband penetration.

THE IMPORTANCE OF HARMONISATION

We believe strongly in the merits of a coordinated approach to the digital dividend between EU Member States; access to UHF spectrum in bands harmonised across Europe is extremely important to ensure broadband availability in rural areas. The benefits of having a band available for mobile

¹ See http://www.digitaldividend.eu/files/digital_dividend_summary_report.pdf

that is compatible with the rest of Europe far outweigh the anticipated costs of migrating services out of the 790-862MHz band.

We have seen the success of having harmonised standards and frequency bands for GSM which have facilitated pan-European mobile communications and voice terminals for GSM. Terminal values have dropped from a few hundred dollars when they were first launched (but subsidised by operators in many markets) to less than \$50 now. This has come about because of economies of scale in the production of terminals. The same economies of scale need to come into play to ensure that mobile broadband devices that operate at UHF are low cost. Research by the GSMA has shown that lack of frequency harmonisation can lead to poorer radio performance and terminals that are more than twice as expensive. If this were to happen it would mean that the take-up of mobile broadband would be unnecessarily restricted. The net outcome of harmonisation with Europe will be cheaper and better handsets for all Portuguese consumers, due to economies of scale in handset production.

A number of countries have stated that they will make the sub-band 790-862MHz available for mobile broadband, including France, Sweden, Finland, and Switzerland. The UK and Germany have made significant steps in doing so (the UK is currently consulting and Germany has allowed trial mobile broadband networks in this band). ComReg in Ireland has also performed a cost benefit analysis of making around 100 MHz of this spectrum available for mobile broadband and is currently consulting. Greece recently held a high level workshop at which the Minister for Telecoms announced his support for a digital dividend and its importance for providing Greek citizens with access to the knowledge based economy, and that this was particularly important in preventing a digital divide between rural and urban populations. In the GSMA's view preventing such a digital divide will help strengthen social cohesion in many countries. Many other countries are actively considering the issue of future utilisation of the UHF band. Therefore, this is an ideal time for Portugal to reconsider its position and to align with its European neighbours. By doing so, Portugal will also contribute to making the implementation of mobile broadband services in other countries far easier as interference control problems will be reduced if all European countries use the same part of this band for mobile broadband.

ECONOMIC AND SOCIAL BENEFITS OF ALLOCATING DIGITAL DIVIDEND SPECTRUM TO MOBILE BROADBAND

The digital dividend is a once-in-a-lifetime opportunity to bring affordable mobile broadband services and Internet connectivity to people all over the world. Broadband is a key tool for development as it opens up the knowledge economy to everyone, even in rural or hard to reach areas.

Economic benefits

Portugal has one of the highest figures in the EU for total electronic communications revenue and investment as a percentage of GDP; investment in the market in Portugal in 2008 totalled €1.19 billion, a 52% increase compared to the previous year. This was mainly fuelled by investment by

mobile operators (€736 million)². Allocating some of the digital dividend spectrum to mobile would support continued investment from the mobile industry and would have a significant positive economic impact in Portugal, driving innovation, job creation, productivity and competitiveness.

In Europe, allocating up to 100MHz of UHF spectrum to mobile would generate between €63 billion and €165 billion in extra economic value³. Estimates indicate that accumulated effects over the next decade or more might generate as much as an additional 0.6% GDP growth per year for the EU economy by 2020 in the case where mobile shares the band with broadcasters compared to the case where broadcast TV alone occupies the band.

	Mobile	Broadcast TV
The economic output per MHz of bandwidth	€168 million	€28 million
Direct economic effects in the EU (services, revenues, product sales etc)	€208 billion	€43 billion
Sales by suppliers	€87 billion	€30 billion
Indirect economic effects	€165 billion	€95 billion
Jobs generated by sector spending	2.3 million	1.8 million

A 2008 study for the Irish regulator ComReg by Europe Economics⁴ states that, once the initial benefits of broadcasting are guaranteed, there is little scope for increasing its value by assigning more spectrum to it. It concluded that the optimum split between mobile and broadcasting would allocate between 80 and 120 MHz to mobile broadband services from the UHF band.

Social benefits

Policy makers globally have identified widespread internet access as a critical tool in social development; it has an essential role to play in improving health, wealth, education and social mobility and bridging the digital divide between rural and urban areas. Although the mobile broadband penetration rate in Portugal is high (22.4% at the end of 4Q08⁵), currently 25% of homes in Portugal still have no access to either fixed or mobile broadband⁶. More widespread roll-out of mobile broadband will continue to bridge the digital divide between rural and urban areas and allow

² Source:

http://ec.europa.eu/information_society/policy/ecomm/doc/implementation_enforcement/annualreports/14threport/pt.pdf

³ Source: Spectrum Value Partners, Getting the most out of the Digital dividend, 2008

<http://www.gsmworld.com/documents/Spectrum-Getting-the-most-out-of-the-digital-dividend-2008.pdf>

⁴Source: How Ireland can best benefit from its Digital dividend, Europe Economics

<http://www.comreg.ie/fileupload/publications/CP50e.pdf>

⁵ Source:

http://www.anacom.pt/streaming/access_internet4quarter2008.pdf?contentId=853898&field=ATTACHED_FILE

⁶ Source: ANACOM, “Disponibilidade geográfica da banda larga em Portugal”, 22/09/2008

more Portuguese citizens to fully engage with services such as e-government, as well as enhancing inclusion, quality of life, community ethos, cultural understanding, education of citizens and informed democracy. With a harmonised plan, economies of scale will also mean lower costs for consumers. Environmental benefits will also ensue from deploying mobile broadband in the UHF band as significantly fewer base stations will be required.

TIMEFRAME FOR MAKING AVAILABLE RIGHTS OF USE FOR DIGITAL DIVIDEND SPECTRUM

Analogue switch-off is already in progress and spectrum reallocation decisions are being made. In the US, spectrum has already been auctioned and many other administrations around the world have confirmed their intentions for the UHF frequency bands. Unless a harmonised band plan is agreed upon soon in Europe, there is a real risk of fragmentation. This will result in slower roll-out of mobile broadband services and more expensive handsets, meaning European citizens will reap the benefits of the digital dividend much later than consumers in the other regions of the world; this will be harmful to European competitiveness and prosperity.

The GSMA believes that digital dividend spectrum is ideal for the deployment of the newest generation of mobile broadband services - Long Term Evolution (LTE). In our response to the European Commission workshop on the digital dividend in Europe⁷ in March 2009, we made clear our view that if sufficient favourable regulatory signals are given by national administrations in Europe by the end of this year, LTE services could start to be deployed as early as 2011, with large-scale deployment by 2012. Mobile internet access via these technologies will enable a multitude of new and innovative services, including government, health, education and entertainment services, to be delivered widely cost-effectively in rural areas of Portugal as well as urban.

The GSMA believes that ICP-Anacom should make available as a minimum the harmonised band of 790-862MHz as soon as possible, to ensure that citizens of Portugal can derive the maximum benefit from mobile broadband, and that the country can maintain international competitiveness. Although analogue switchover in Portugal is not scheduled for completion until April 2012, the sooner mobile operators have certainty on the issue, the sooner they can confirm their network investment plans. This will ensure that Portuguese consumers can benefit from new services as quickly as possible. Ideally, a minimum of 100MHz of harmonised digital dividend spectrum would be allocated to deliver mobile broadband services. This would be sufficient to license larger frequency channels, which would deliver higher data rates and support several operators in the Portuguese market, ensuring vigorous competition. Each operator needs a minimum of 2 x 10 MHz to provide an efficient LTE service, and an ideal allocation of 2 x 20 MHz in the middle term to cope with capacity growth.

CONCLUSION

Clear and timely decisions on the allocation of digital dividend spectrum will enable stakeholders such as mobile operators to invest early and with confidence in the future of mobile broadband and

⁷ <http://www.analysismason.com/PageFiles/11730/GSMA.pdf> (conclusion to question 4)

the services it will deliver. This kind of future-proofing is essential if the mobile industry is to continue to deliver social and economic benefits in Portugal and other European countries.

For questions regarding this response please contact:

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About the GSMA

Founded in 1987, the GSMA is the global trade association of the mobile industry, representing more than 750 GSM and 3G mobile phone operators across 218 countries and territories of the world. In addition, more than 180 manufacturers and suppliers support the Association's initiatives as associate members.

The primary goals of the GSMA are to ensure that mobile phones and wireless services work globally and are easily accessible, enhancing their value to individual customers and national economies, while creating new business opportunities for operators and their suppliers. The Association's members represent more than 3.7 billion GSM and 3G connections – nearly 90% of the world's mobile phone connections.

The GSMA plays a pivotal role in the development of the GSM platform and the global wireless industry. Much of the GSMA's work is focused on two areas: Emerging Services and Developing Markets. The GSMA helps its members develop and launch new services, ranging from mobile instant messaging to video sharing to mobile Internet access, which will work across networks and across national boundaries. At the same time, the GSMA is heavily engaged in the industry's push to extend basic voice, text and broadband access services to more people and assisting Administrations in developing communications infrastructure in their countries.

More information about the digital dividend is available on our website at:

www.gsmworld.com/digitaldividend