GSMA Response to CSA Consultation on the launch of Digital Audiovisual services via terrestrial broadcast and monitoring of the strategic plan for digital transition – May 2009

OVERVIEW

The GSMA is very pleased to have the opportunity to respond to this consultation on the future use of spectrum in Belgium. The GSMA will limit its response to the issue of the Digital Dividend, and the need for harmonised spectrum across Europe to control interference and reduce terminal costs.

The GSMA believes that allocating 72 MHz (790-862 MHz) from a total of 392 MHz (470 to 862 MHz), will initially lead to the best outcome for Belgian consumers and citizens. This will align Belgium with a growing number of European countries (especially the major neighbouring countries of Belgium) that are moving towards allocating these bands for new services such as mobile broadband. The band 790 – 862 MHz was identified at the last WRC for mobile broadband services in Europe (as well as Africa and the Middle East). The CEPT has since been mandated by the European Commission to develop a band plan for mobile services in 790 – 862 MHz. There is a growing momentum behind this band for mobile broadband services because of its better propagation characteristics. This allows for much more cost effective rural services and better indoor penetration. A number of economic studies have been done that show the large benefit assignment of this band can have for consumers an markets.

A 2008 study by SVP[1] looking at the economic impact of using UHF for mobile broadband in Europe stated that, allocating at least some UHF spectrum to mobile operators would generate between €63bn and €165bn (NPV). This is in addition to the estimated €2.5-5 trillion in NPV that mobile generates for the European economy without any UHF spectrum.

The study concludes that although results differ from country to country and between scenarios, allocating at least 92MHz of UHF spectrum to mobile operators would be most likely to maximise additional value for the European economy as a whole. The implicit assumption on the figure of 92 MHz, was that a large enough market would exist to allow for the production of low cost terminals. The GSMA believes that in the context of Belgium, at least 790 – 862 MHz should be identified now for non-broadcasting services. This is in

[1] http://www spectrumstrategy.com/Pages/GB/perspectives/Spectrum-Getting-the-most-out-of-the-digita-dividend-2008.pdf

line with the WRC and work currently being done in the CEPT. If the CEPT were to identify further spectrum then thisshould be examined.

CEPT ECC PT1 has finalised an harmonised band plan for electronic communications between 790 and 862 MHz and a number of countries have stated that they will make this spectrum available for mobile broadband, including: UK, France, Sweden, Finland, and Switzerland.

- Germany have made significant steps in doing so and has announced its intention to clear the whole band and award it by the end of this year. This is intended as part of a wider package of spectrum awards to help economic regeneration and help boost jobs[2].
- Com Reg in Ireland has also performed a cost benefit analysis on this issue[3]. The analysis has shown that allocating between 80 and 120 MHz for mobile broadband would be the optimal solution (see below). Com Reg has also recently published a consultation stating its intention to follow the harmonised approach and make this band available for mobile services.

The GSMA is also aware of a number of other countries actively considering the issue of future utilization of the UHF-band. Therefore, it is an ideal time for Belgium to reconsider its position and to align with its European neighbours. By so doing, Belgium will contribute to make the implementation of mobile broadband services in other countries far easier. This is because interference control problems will be reduced if all European countries use the same part of this band for mobile broadband.

The European Commission is also examining this issue and has employed consultants to perform a cost benefit analysis for EU countries to look at the trade off of awarding a small amount of spectrum to mobile services. There is also currently an RSPG consultation on the issue of the Digital Dividend.

The GSMA would therefore suggest that there is growing support to award this band to services other than broadcasting in Europe. The GSMA believes that the same rationale will apply in Belgium (of allocating less than 25% of the whole band to new and innovative services such as mobile broadband). It will also allow for the more effective management and control of interference if Belgium were to decide to follow her neighbours (eg France and Germany).

The GSMA would also like to point out that in Belgium the percentage of the population that watch TV, do so overwhelmingly via cable (87%[4]). Indeed more people access TV content via IPTV (8%) than terrestrial TV (5% for analogue and DTT combined). This would seem to make the case even stronger for an assignment to non-broadcasting services in 790-862 MHz. This is because there are so many other delivery platforms (including Freesat), and terrestrial is at best a niche service based on market shares of viewing.

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[2] http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/158
[3] http://www.comreg.ie/_fileupload/publications/CP50e.pdf
[4] Informa –TV International source book 2009

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 billion GSM and 3G connections - over 86% 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.

GSM is an evolving wireless communications standard that already offers an extensive and feature-rich 'family' of voice and data services. The GSM family of technologies consists of today's GSM, General Packet Radio Service (GPRS), Enhanced Data rates for GSM Evolution (EDGE) and third generation GSM services (3GSM) based on W-CDMA and HSDPA access technologies. Together with LTE (Long Term Evolution), these technologies underpin the GSM platform.

The GSM Association's Board comprises top-level representatives of some of the world's leading mobile operators, such as AT&T, Bharti Airtel, China Mobile, MTN Group, Orange, Orascom and Vodafone.

Discussion

The need for Frequency Harmonisation

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 prices 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 broadband would be unnecessarily restricted.

The development of telecommunications markets in emerging and very populated countries has reduced the weight of the European market in the industry. Recently the debate for an harmonised frequency arrangement in the 790-862 MHz and in 2500-2690 MHz have shown that a single European country does not represent a sufficient market for the development of specific solution.

In the Ofcom UK's recent consultation document it noted that the benefits of harmonisation amounted to between €2-3 billion in the UK[5]. This is mainly from reduced terminal costs and reduction in inter-country interference. It is therefore very important that Europe implement the same UHF band for mobile broadband. The GSMA therefore supports the IBPT's suggestion of identifying 790 to 862 MHz for the digital dividend in Belgium.

More information about the benefits of frequency harmonisation can be found at : http://www.gsmworld.com/our-work/public-policy/spectrum/digital-dividend/frequency_harmonisation.htm

Answers to specific questions raised on Digital Dividend

Question 20: Participants to the public consultation are invited to give their opinion on the introduction of two-way services in the band 790 MHz-862 MHz, as well as on the position of the French Community in this matter.

The introduction of the bi-directional services in Europe requires reshuffling of frequencies in countries that wish to introduce these innovative mobile broadband services and borders coordination with neighbouring countries according to guidelines that are already described within CEPT and in ECC

[5] http://www.ofcom.org.uk/consult/condocs/800mhz/summary/

TG4 in particular. Indeed the ECC Task Group on the Digital Dividend was aimed to "establish a common methodology for coordination in the case where one country at the border wishes to use the band 790-862 MHz for mobile applications while the other country wishes to retain this band for broadcasting applications". While still ensuring an equitable access to the spectrum, the major conclusion is that "the GE-06 Agreement provides the necessary regulatory procedures to identify administrations to be involved in the coordination process between broadcasting service in one country and mobile service in another country" and it is likely that Belgium might have to coordinate with UK, France and Germany (even if the criteria contained in the GE-06 could be considered as worst case).

For all reasons that have been described hereafter, the GSMA would recommend that the spectrum from this band should be made available according to the ECC PT1 finalised band plan. Services that use the band should be consistent with such a band plan, and make the best use of the spectrum for Belgian citizens.

From the current work in CEPT this would seem to imply 2 x 30 MHz with 5 MHz channel blocks (as the consultation notes). The band has been identified for IMT (mobile broadband services) by the ITU in most of the European countries (not including Belgium) in WRC-11 and in Europe and Africa from 2015, and that would seem to offer the best way of achieving the overall policy objective of described above

This would seem to imply that the entire band (790 to 862 MHz) should be made available to mobile broadband, or at least that mobile operators should have the chance to compete for the whole band in any award process.

The GSMA therefore believes that mobile operators should be free to compete for the whole 790 – 862 MHz band, and that none of the spectrum should be reserved for services that are incompatible with mobile broadband services.

By allocating the 790MHz–862 MHz bands to the mobile industry it would allow the roll out of high speed Mobile Broadband across Belgium. The availability of Mobile Broadband will provide Belgium citizen with easy access to a wide range of multimedia and interactive broadcast content via on demand services (similar to Youtube via IPTV). Access to such services via broadband will help boost plurality because it is far easier to view locally produced viewing content via the internet. The lower overheads of broadband, as opposed to supporting a terrestrial TV network radically change the economics of media distribution. This in effect lowers the entry barriers for local content provision in a diversity of languages. This can lead to greater social cohesion, as well as encouraging participation in the democratic process.

We have also seen the importance of access to broadband in boosting democratic participation, as was seen in the recent US election. The use of the internet by the US Democratic party was important in Mr Obama in initially raising the funds needed to campaign, and in coordinating his campaign and

reaching out to voters. Some have noted that this made the US campaign less reliant on large corporate donations.

Access to this type of interactive content rather than limited broadcast channels would enable local community's easy access to a wide variety of local content. Along with the access to on demand services Mobile Broadband would also enable communities to upload, access and share regionally specific media content.

Question 21: In your opinion, what are the cost benefits from a Economic point of view of the allocation of part of the frequencies for audiovisual media (DVBH or DVBT) or electronic communications?

The economic benefits of broadband are clear and have been demonstrated by numerous economic studies. Allocating some of the Digital Dividend spectrum to mobile operators would have a significant positive economic impact, driving innovation, job creation, productivity and competitiveness. Across Europe, allocating up to 100MHz of UHF spectrum to mobile would generate between €63bn and €165bn in extra economic value3.

In terms of 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. Currently mobile broadband penetration in Ireland is 20.5%, considerably higher than the EU-27 average of 13%4. More widespread roll-out of mobile broadband will continue to bridge the digital divide between rural and urban areas and allow more Belgian 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. Environmental benefits will also ensue from deploying mobile broadband in the UHF band as significantly fewer base stations will be required.

It has been identified there is a diminishing economic return on the benefit of the allocation of the Digital Divide to the broadcasting industry; this was shown in 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.

	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

On DVB-H

DVB-H is one means of delivering mobile TV content. It is possible to deliver such content by other technologies, such as MediaFlo, and via the use of mobile broadband (unicast, multicast, MBMS). Mobile operators have chosen different mobile TV solutions in different markets, and there is no natural choice for all markets. For example in Italy DVB-H has proven to be very successful. In Japan and South Korea (with the greatest mobile TV penetration) other technologies have been selected (is DMB and ISDB-T).[6]

Technologies such as DVB-H are better suited to delivering content that will be viewed by a larger number of viewer at the same time. Mobile broadband (unicast etc) is better suited to content that is viewed by fewer users and hence both technologies could be viewed as complimentary.

The GSMA believes that in the context of the Belgian market, it should be made clear that the band 790 – 862 MHz should be reserved for mobile broadband services. If DVB-H were to have multiplexes made available it should not be from this band. That is because the major benefit of this band will be for mobile broadband and not mobile TV. Of course mobile broadband can also offer mobile TV, but mobile TV via DVB-H cannot offer mobile broadband.

There are also reasons to do with interference generated within a multimode handset (GSM900/LTE800/DVB-H) for not allowing DVB-H to be operated in bands above 746 MHz.

Question 22: What are the impacts of the three different technologies on territorial criteria, sociocultural principles and on other effects that are difficult to quantify? For your convenience, you can complete the tableau 21:

The view of the GSMA is that there are strengths and merits in the technologies mentioned in this question. They will each complement each other in their deployment within Belgium to support the socialcultural

[6] In Japan there are 18m and S. Korea 17 m mobile TV users – source ADL :" Mobile TV – turning on or switching off" March 09.

principles of the region. Within the reallocation of the Digital Dividend spectrum there will be sufficient spectrum to allow the full deployment of all these technologies. Indeed as noted in the beginning of this response, terrestrial TV is one amongst other deliver platforms (cable, Freesat, IPTV). Indeed terrestrial TV is a very minor platform with 5% of households using it.[7] It should be remembered that terrestrial TV is not the only way of ensuring sociocultural principles are delivered to Belgian citizens. Indeed the internet may be better placed to offer wider access to TV content via IPTV and locally produced content on websites like Utube.

Within Belgium up to 95% of the population have access to a data connection via either copper or Satellite, the introduction of DVB-H, DVB-T and Bi-directional services will support the coverage already available to Belgian citizens.

Conclusion

The GSMA therefore supports the CIBT's suggestion of identifying 790 to 862 MHz for the digital dividend in Belgium, and making this available for mobile broadband services.

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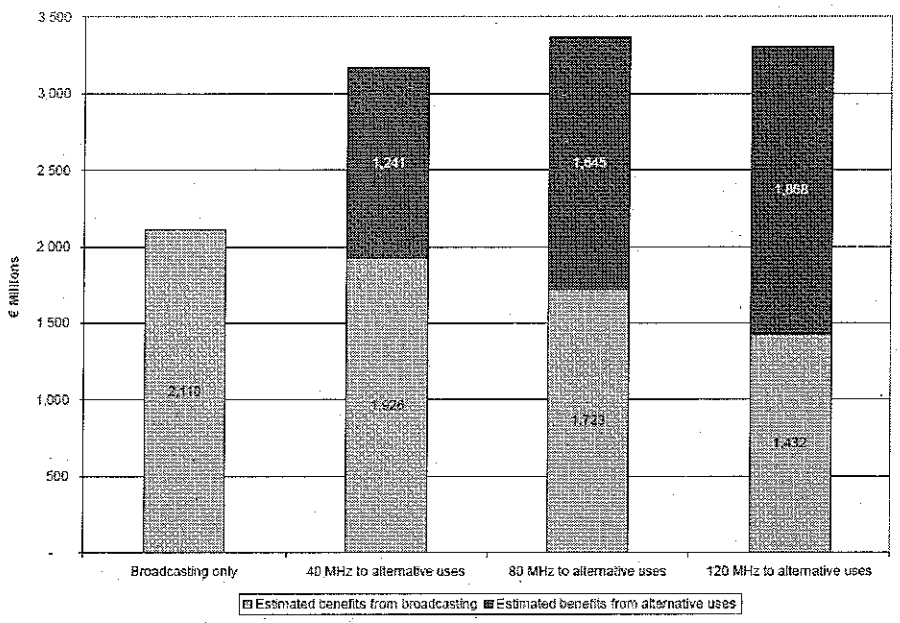
You can see more information about the Digital Dividend on our web site at :
http://www.gsmworld.com/our-work/public-policy/spectrum/digital-dividend/index.htm

[7] source Informa

Annex 1 Economic studies

The Key Economic Studies:

1) Europe Economics[8]: How can Ireland best benefit from DD (October 2008)



The analysis shows the maximum combined value (broadcasting and mobile) is between 80 and 120 MHz in Ireland. It goes from € 2.11 billion for broadcasting alone to €3.3 billion for mobile with 120 MHz of Digital Dividend spectrum.

2) Analysis Masons : March 08 commissioned by ARCEP (France[9])

Key findings of the report include:

Allocating a proportion of the released spectrum for mobile broadband services adds greater value to the economy than if this band were allocated exclusively to digital TV services. In fact, a scenario that would 'share' the digital dividend between both electronic communications and audiovisual industries would add over €25 billion more to the French economy between the years 2012 and 2024 than allocating the digital dividend exclusively to the digital TV industry.

Mobile broadband services will support political goals of 'digital inclusion'. Expanding mobile broadband access – especially in areas that will be underserved by fibre – will be most economically productive, and will significantly reduce the digital divide. Allocation of spectrum to mobile broadband will support the French

[8] http://www.comreg.ie/_fileupload/publications/CP50e.pdf

[9] http://www.analysysmason.com/PageFiles/4324/Valuation%20of%20the%20digital%20dividend%20in%20France%20(English%20Version).pdf

government's aim of ensuring 100% of the French population has access to fixed/mobile broadband internet by the year 2012.

3) Spectrum Value Partners[10]: March 08, Getting the Most out of the Digital Dividend

Key findings are:

Allocating at least some UHF spectrum to mobile operators would generate between €63 billion and €165 billion in net present value (NPV). This is in addition to the estimated €2.5-5 trillion in NPV that mobile generates for the European economy without any UHF spectrum.

Although results differ from country to country and between scenarios, allocating at least 92 MHz of UHF spectrum to mobile operators would be most likely to maximise additional value for the European economy as a whole.

Allocating considerably more than 92 MHz to mobile operators could also be justified under a range of plausible demand scenarios.

4) SCF[11] The Mobile Provide: Economic Impacts of Alternative Uses of the Digital Dividend May - September 2007

The author of the report stated that "If the mobile industry is allowed to use the spectrum it needs, it could boost Europe's GDP by as much as 0.6% per year by 2020 generating thousands of jobs throughout the EU. This is because mobile communication brings huge productivity gains allowing all of Europe's businesses to work more efficiently".

[10] http://www.spectrumstrategy.com/Pages/GB/perspectives/Spectrum-Getting-the-most-out-of-the-digita-dividend-2008.pdf

[11] www.digitaldividend.eu