

SIEMENS response on RSPG Consultation

Siemens welcomes the opportunity to respond to the Radio Spectrum Policy Group opinion on "The introduction of multimedia services in particular in the frequency bands allocated to the broadcasting services". Furthermore, Siemens urges the RSPG to adopt this Opinion before end of the year-since it is critical for the take-up of multimedia services that Europe moves ahead and creates the best possible regulatory conditions and certainty. The market has shown great interest in multimedia services but this alone cannot achieve the goal. Political commitment and consensus among member states is vital at this stage.

Siemens supports the harmonization of spectrum and this should be continued to be pursued across Europe

- The frequency band has a large economic impact. UHF (470-750 MHz) is the optimum. Going to L-Band would triple the network costs.
- The new spectrum management approach which is to be introduced through the Directives review process - expected to adequately address harmonisation, technology and service neutrality- should be applied to the digital dividend across the EU Member States.

Siemens would like to provide some general comments as well as more specific comments on the UHF, L Band, MSS at 2 GHz and IMT-2000 spectrum.

General comments

- Siemens welcomes this consultation and the opportunity to respond. Siemens supports that by the end of this year the RSPG agrees an opinion on the issues raised in order to advance the regulatory environment for the introduction of new multimedia broadcast services in Europe.
- Siemens believes that there is a market opportunity for mobile multimedia broadcast services and favours a spectrum policy that sustains fair competition in terms of technology and service provision.
- Wherever possible some spectrum should be made available for mobile multimedia broadcast network(s) to enable the provision of the new services prior to analogue switch off.
- There are a number of terrestrial and satellite technologies that have the capability to provide mobile multimedia broadcast services. Examples of these include UMTS/IMT-2000 (FDD & TDD), DVB-H, MediaFLO, DMB, DAB, and mobile satellite broadcast services, etc.
- Siemens supports the harmonization of spectrum for new multimedia broadcast services and this should be continued to be pursued across Europe.

UHF (470 – 862 MHz)

- Ideally more than one national multiplex per country should be made available in order to provide a competitive environment and a sufficient number of services for the users that should make possible the mobile multimedia services success.
 - o At least one multiplex should be made available as soon as possible.
 - o Additional multiplex(s) should be provided as soon as there is spectrum availability on a market demand basis.

- The planning criteria for mobile broadcast networks are different to that of fixed broadcast networks and any spectrum conditions should be developed with this in mind.
- Some industry players believe that there should be a debate on whether other mobile technology modes, such as FDD & TDD, and the associated impact on the channelisation arrangements.
- Europe-wide harmonisation of the spectrum to support mobile multimedia networks should be supported. Common and unique frequencies for mobile multimedia networks within a country, and ideally across Europe, eases roaming, acquisition time, spectrum efficiency and reduces costs, equipment and network deployment complexity, cross border interference, etc.
- It is proposed that EC RSCOM liaises with CEPT/ECC, and considers issuing a mandate if appropriate, to:
 - Identify the appropriate spectrum layers taking into account result of the RRC-06 (ideally a minimum of two multiplex coverage per country based on 8MHz channel raster each and with the possibility of the SFN one being harmonized across EU);
 - Define the terms and goals of the relevant technical and interference studies necessary for each layer and start conducting the appropriate technical studies;
 - Target timeline for availability of each spectrum layer and draft appropriate ECC decision to support this;
 - Build an appropriate regulatory and competition environment for spectrum licensing across Europe

L Band (1452 – 1492 MHz)

- Siemens believes that this band could be an important alternative for the mobile multimedia broadcast networks due to its availability on a Europe wide basis and supports the RSPG to take the measures needed to assure this availability.
- Multiple mobile multimedia networks can be supported within this band, as a complement to other mobile multimedia networks in UHF spectrum, for example in densely populated areas to provide additional capacity and could become significant as the availability of UHF spectrum might be delayed as long as 2012.
- It is noted that CEPT identified the upper 12.5 MHz of the allocation for S-DAB¹ use (1479.5-1492 MHz), while the remaining part (1452-1479.5 MHz) is managed by the Maastricht Special Arrangement, and that development of S-DAB in 1467-1492 MHz is also possible under the Maastricht Special Arrangement.² Satellite mobile multimedia networks can also be supported in this band.
- Activities at the European level (EC / ECC) should be initiated to ensure that such spectrum is effectively used and optimized for new mobile broadcast networks, wherever possible. The opportunity to harmonise this spectrum should not be lost.
- The process for updating the channel arrangements for the band 1452-1479.5 MHz should be simple and in a manner appropriate for mobile multimedia applications. A full scale review of Maastricht is not favoured but rather some form of simple and quicker European supplementary approach within the framework of Maastricht such as a multi-country addendum / ECC decision etc to “re-interpret” the arrangements.
- It is noted that in order to most effectively and efficiently support mobile networks the channelisation scheme in the band 1452-1479.5 MHz should be reviewed and re-interpreted to enable nationwide channels to be made available.
- It is also noted that some of the mobile broadcast technologies currently operate at wider channel bandwidths rather than 1.7 MHz which is currently detailed under Maastricht in

¹ ECC/DEC(03)02 on the designation of the frequency band 1479.5–1492 MHz for use by Satellite Digital Audio Broadcasting systems

² See Annex 2 to the MA-02 Special Arrangement on the sharing of the band 1452-1479.5 MHz between T-DAB and other services

the band 1452-1479.5 MHz. Licensing of this spectrum should be designed to enable the option for different channel bandwidths in an efficient manner.

- There is already a spectrum mask under Maastricht which is for T-DAB systems in 1452-1479.5 MHz. This should be considered as the basis for other technologies taking into account the potential for wider channel widths.

2 GHz MSS spectrum:

The conditions of use of this spectrum are under review at the EU and CEPT level. This spectrum could provide a valuable resource to implement pan European satellite-based mobile multimedia services.

IMT-2000 Spectrum

- It is noted that IMT-2000 technologies (TDD & FDD) have the capability to provide mobile TV services.
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