

Comments of ONDAS Media, S.A.

Radio Spectrum Policy Group

Draft Opinion on

The Introduction of Multimedia Services in Particular in the Frequency Bands Allocated to the Broadcasting Services

14 July 2006

Introduction

Founded in 2004, ONDAS Media S.A. ("ONDAS") is a Madrid-based media company which plans to be Europe's first and premier provider of satellite digital media services. With a planned service launch towards the end of 2009, ONDAS intends to provide subscription-based multilingual music, video, news, sport, telematics and other data services through to consumers throughout the European Union.

ONDAS is designing and building a network of four satellites that will orbit the earth in a non-geostationary, highly-elliptical orbit ("HEO"). This network is intended to operate within the radio frequency band 1452 – 1492 MHz, because this band has been allocated internationally by the ITU to the broadcasting satellite service (BSS). A complementary terrestrial network is also planned to ensure the highest quality of service. Thus, the network will provide European-wide coverage and reception that will be superior to that enabled by a standard geostationary arrangement.

ONDAS welcomes the initiative being undertaken by the Radio Spectrum Policy Group ("RSPG") – as well as various other initiatives being pursued by DG Information Society – to facilitate the introduction of mobile multimedia services in Europe. We are pleased to offer the following comments on the RSPG's Draft "Opinion on The Introduction of Multimedia Services in particular in the frequency bands allocated to the broadcasting services" (the "Draft Opinion").

Comments on the Draft Opinion

Experience demonstrates that it is vitally important spectrum that allocations for new, frequency-based consumer and media services be made regionally, if not globally. The global adoption of the VHF/FM standard for broadcast radio and the near-global adoption of the GSM standard for mobile communications networks may be attributed, in large measure, to the early identification of common spectrum allocations. Allocations which are not harmonised, at least within Europe, are very unlikely to allow new networks and services to develop successfully in Europe and achieve commercial success in Europe and beyond. In this respect, therefore, ONDAS supports the Europe-wide identification of frequency bands for mobile multimedia services, and has the following remarks regarding the various bands under consideration by the RSPG in its Draft Opinion.

L-band (1452-1492 MHz)

As the Draft Opinion notes, the lower portion of the L-band (1452-1479.5 MHz) is presently planned for use by terrestrial digital audio broadcasting (T-DAB) service under the 2002 Maastricht Special Agreement, and the upper portion of the band (1479.5-1492 MHz) is planned for use by satellite digital audio broadcasting (S-DAB) service under ECC Decision/(03)/02. The strategic importance of such regional planning should not be overlooked; the benefits of the Single European Market – e.g., larger economies of scale, greater competition, less cross-border interference, more pan-European networks – cannot be realised in the absence of such planning

Nevertheless, as the Draft Opinion points out, in the years since Maastricht, take-up of T-DAB service across Europe has been anemic, at best. The unsatisfactory record of T-DAB in the L-band suggests that use of the band's high frequencies for terrestrial transmission over wide areas is simply uneconomical.

By contrast, as the Draft Opinion recognizes, a number of satellite projects are planned to provide S-DAB service in the L-band. Indeed, such service is included in more than 100 satellite networks currently filed with the ITU. If even a small fraction of these planned networks come to fruition, there will be significant congestion in the band.

Much of the interest behind these planned projects can be attributed, in ONDAS' view, to the successful experience of the North American satellite radio providers Sirius Satellite Radio and XM Satellite Radio. As noted in the press last year, "[t]otal subscribers [for these two companies] will probably surpass eight million by the end of [2005], making satellite radio one of the fastest-growing technologies ever – faster, for example, than cellphones." (*New York Times*, 5 April 2005, at A.21). In fact, in 2005 the US market for satellite radio service exceeded even this robust prediction, with the two providers garnering some 9.2 subscribers by the end of that year. According to latest estimates, Sirius and XM expect to have a combined subscriber base of 14.8 million by the end of 2006.

Now that the service's technical and commercial feasibility has been demonstrated in North America, momentum for its introduction in Europe has gathered rapidly. In ONDAS' view, this progress should not be impeded by a "re-farming" of any portion of the 1479.5 – 1492 MHz segment to non-satellite applications. On the contrary, ONDAS would strongly urge RSPG to reconsider the lower band (1452-1479.5 MHz) in its review, with a view to providing substantial, additional spectrum for the satellite broadcasting service.

Finally, ONDAS believes that any revisitation of Maastricht should be undertaken at the European level to ensure continued harmonisation, and not on a bi-lateral basis simply to facilitate individual countries making national assignments in the band that will restrict planned usage later.

S-band (1980-2010 MHz/2170-2200 MHz)

ONDAS believes that any review of the other satellite bands identified in the Draft Opinion (1980-2010 MHz, 2170-2200 MHz, 2500-2520 MHz, and 2670-2690 MHz) should be approached with caution since satellite spectrum is very scarce as compared to terrestrial mobile and broadcasting spectrum. The technical complications of sharing frequency spectrum between terrestrial and satellite systems are very severe, and sharing in these

bands below 3 GHz is generally considered to be practically infeasible. The assignment of these bands to terrestrial services would therefore preclude the deployment of satellite services and block the development of Europe-wide communications and multimedia services via satellite.

VHF/UHF bands (174-230 MHz/470-862 MHz)

The recent ITU regional planning conference (RRC-06/GE-06) has significantly reviewed the use of the VHF and UHF broadcasting bands (174-230 MHz and 470-862 MHz, respectively) across Region 1. ONDAS believes that the impact of these changes should be fully understood before embarking on the identification of new, higher frequency bands. There is substantial potential for a “re-farming” of these existing broadcast bands for new multimedia mobile services. The benefits include access to lower frequency bands, allowing for better coverage than in higher frequency bands, and the possibility of re-use of existing broadcast infrastructure, amongst others. Accordingly, there may be important commercial advantages for the introduction of new terrestrial services in these bands, if adequate capacity is available.

National Licensing

The Draft Opinion notes the potential need to remove constraints presented by national licensing procedures for broadcasting, mobile and fixed services in order to facilitate the introduction of multimedia services. ONDAS certainly supports this initiative, but notes that it may well take substantial time to achieve, owing, not least, to sensitivities over national jurisdiction. However, the continued pursuit of further Europe-wide harmonised frequency bands is vital if any benefit is to be gained from removing such licensing constraints over the longer term.
