

**RTÉ Response** to the  
RADIO SPECTRUM POLICY GROUP

Opinion on

The Introduction of Multimedia Services in particular  
in the frequency bands allocated to the broadcasting  
services

14<sup>th</sup> July 2006

## Introduction

RTÉ, Ireland's national Public Service Broadcaster (PSB), welcomes this opportunity to participate in this Response to the Radio Spectrum Policy Group's (RSPG) Opinion on the introduction of multimedia services in particular in the frequency bands allocated to the broadcasting services (e.g. mobile TV).

This RSPG opinion is recognised as complementary to the work undertaken in the development of an RSPG Opinion on spectrum implications of switchover to digital broadcasting as published on 19 November 2004 (Document RSPG04-55 Rev final). The RSPG Opinion on spectrum implications of switchover to digital broadcasting pointed out the important potential of the 'spectrum dividend' (as an integral part of the 'digital dividend'). RTÉ also notes that the European Commission has further developed this issue (in publications such as Communications from the Commission COM (2005)204 and 461) and that the RPSG adopted an Opinion on Wireless Access Policy for Electronic Communications Services - WAPECS (RSPG05-102).

RTÉ agrees that the availability of radio frequency spectrum has an important role to play in ensuring the achievement of the Lisbon agenda and the e-Europe Action Plan. In broad terms RTÉ agrees that current spectrum use and spectrum management approaches do need to be considered in the light of converging services and new technologies. RTÉ acknowledges that initiatives to consider the use of spectrum in a post-analogue switchover environment should lead to greater flexibility in the use of the spectrum and potential for the rapid introduction of multimedia services under current licenses. One difficulty however, is that licensing regimes differ from country to country thus there cannot be any 'one-size-fits-all' approach.

The key challenge for policy makers and regulators at national and international level will be to facilitate access to spectrum that stimulates innovation and meets the needs of consumers and business into the future, without disadvantaging services of general interest such as public-sector broadcasting and without distorting the market or by choosing technology winners. The suggestion to allocate spectrum currently assigned for public services raises a number of important concerns regarding the legitimate use of spectrum by Services of General Economic Interest, under EC Treaty rules and defined by Member States, the EU 'Amsterdam Protocol' on public service broadcasting and the need for spectrum to be safeguarded for broadcast services at least until digital switchover is complete.

Public Service Broadcasting exists to ensure cultural diversity, media pluralism and balanced information and debate in society. RTÉ believes that the fundamental democratic principle of ensuring social inclusiveness as demonstrated by a 'one-to-many' (or point to multipoint) broadcast paradigm will continue to be important for citizens and for policy makers, and that this principle must be safeguarded even more so in this era of convergence and technological complexity. The definition of 'multimedia services' needs

to be more clearly articulated, therefore, as PSBs must deliver content to their audiences via all platforms. The audience must have the right to access content via any platform. PSBs must, therefore, be able to offer new media content services according to their universal service obligations. RTÉ suggests that it would be false to assume, therefore that ‘multimedia services’ and ‘broadcasting services’ are mutually exclusive, as suggested by this Opinion paper. In this context, RTÉ wishes to draw attention to the current debate surrounding the proposed draft Audiovisual Media Services Directive, which seeks to take into account issues of convergence and technological neutrality with regard to content. What must be central is the provision of content to the public on a free-to-view and universally accessible basis, subject to legislative and regulatory governance, and fulfilling the PSB remit of ‘informing, entertaining and educating’ all citizens on an equal basis. RTÉ fully recognises that the merging of broadcasting and multimedia services in technologies such as DVB-H, DAB-IP or T-DMB, or DRM (as well as 3G and 4G etc) creates a complex communications landscape, but remains resolute that the primary rights of the citizen must be safeguarded as a priority.

## Discussion

RTÉ and RTÉNL’s Frequency Planning experts wish to highlight the following observations and raise some questions for consideration:

- The safeguarding of Public Service Broadcasting, and the delivery of content by PSBs via other platforms, must remain a priority for policy makers into the future, as the requirement for spectrum for High Definition Television and other new and emerging technologies indicates.
- ‘Digital dividend’ is the term designed to identify the spectrum which can potentially be released after switchover of analogue television services. The amount of spectrum to be released (if any) is specific for each country; it depends on the current position of the terrestrial broadcasting platform and on its future development in that territory. It is also possible that no ‘digital dividend’ might actually materialise when ever-growing public demand for higher quality (HDTV) and mobility (DVB-H, T-DMB) services for Public Service Broadcasting over the longer term are taken into account.
- ‘Harmonisation’ of this ‘digital dividend’ across all the planning areas may be difficult to achieve, as this would require a co-ordinated strategy for the analogue-to-digital switchover across all geographies. Even CEPT countries are approaching this complex task according to the demands and traditions of the local market, existing broadcasting infrastructure, financial and technological resources, and according to different timescales in different areas.

- During the switchover transition period, which for the EU members is agreed to end by 2015 in the UHF and VHF bands (for some countries the transition period in the VHF band is prolonged until 2020), protection of analogue television remains the absolute priority. Any spectrum released due to the phased introduction of DVB-T (DTT) during the transition period should first be considered for the further development of DTT according to national policy-making and long-term strategy.
- The GE06 Agreement contains an additional provision for the notification and operation of another primary terrestrial service under a broadcasting service plan entry. This new feature is called the 'envelope concept' ('spectrum mask'). It is described in §5.1.3 of Article 5 of the GE06 Agreement, which states that a broadcasting plan entry may be used for:
  - Another broadcasting system than indicated in the plan entry.<sup>1</sup>
  - Another primary terrestrial service provided that the spectral power density of this alternative system does not exceed that of the plan entry system. A list of such primary services is allocated in the Radio Regulations.
- In most CEPT countries, very few allocations for other primary terrestrial services are found in bands III, IV and V. This means that the envelope concept is not feasible for CEPT administrations at present. However, this situation might change at the next World Radiocommunications Conferences in 2007 and 2010, where new allocations for mobile services in bands III, IV and V could be decided.
- The limitations of the envelope concept are seen by many countries as too restrictive, and to overcome this restriction, 52 administrations, mainly from CEPT countries, have added a declaration (Declaration No. 42) to the GEO6 Agreement stating that they intend to use the envelope concept for other terrestrial applications (not primarily broadcasting), which in principle would allow for negotiations of the broadcast spectrum by commercial telecommunication operators.
- RTÉ welcomes the development of broadcasting multimedia services as this is already an essential part of RTÉ's own post-RRC06 strategy to enhance the viewing experience for the audience by providing television services of higher quality (such as HDTV) and accessibility (such as DVB-H, T-DMB).
- Sharing the broadcast spectrum with other terrestrial services, however, could create a situation where there would not be sufficient spectrum resources available for the introduction of new broadcasting technologies for PSBs. In addition, there are serious technical concerns regarding the practical aspects of co-existence on the same territory of two very different types of transmission networks, namely:

---

<sup>1</sup> Definition of a broadcasting service according to the Radio Regulations presumes that the service is delivered to the general public.

- the traditional broadcasting network, based on the, largely already established, high-power transmission sites, and
- the dense low-power network, more suitable for implementation of mobile multimedia services, which require higher levels of field strength for reliable indoor reception.
- Even low-power base transmitters located immediately inside the service area of the traditional terrestrial television network would be very likely to interrupt the coverage of the latter by overloading the front end of the receiver. Analogue television receivers are even more prone to be affected, as their spectrum mask in general is quite broad and wider than that of the digital receivers. This possible consequence of co-location of networks has yet to be fully scrutinised and certainly neither allotment planning nor the spectrum mask concept currently provide a solution to the problem.

Yet another potential source of interference to the traditional broadcasting network could be the uplink transmissions of the other terrestrial services in cases where these are distributed by satellite. If the spectrum for the uplink communication is allocated within the broadcast frequency bands then the interference to the domestic television receivers is likely to be unacceptably high. Information about this possible consequence is somewhat limited, but the results of the ACTS Project 'Witness' (Wireless Interactive Television, 2000-2002 in which Ireland was the project leader of an international consortium), indicate that the idea of the in-band uplink communication requires further investigation. Therefore, use of the 'digital dividend' for this purpose is possible only with careful spectrum frequency planning which takes into account these practical aspects of implementation.

- Finally it should be noted that an attractive and realistic alternative to the immediate search for the 'digital dividend' in the broadcast spectrum consists in exploring the potential of the L-Band, 1452 – 1492 MHz.

In conclusion, RTÉ is of the view that there are opportunities to introduce multimedia services within broadcast bands. How this is achieved is predicated upon existing licensing practices within countries, and the need to protect the interests of consumers and those of existing PSBs. In particular, it is clear that PSBs must not be disadvantaged while performing their respective remits to deliver services to their audiences across all platforms.

RTÉ and RTÉNL, July 2006.

