TERMS OF REFERENCE (EXTRACT)

STUDY ON SPECTRUM MANAGEMENT IN THE FIELD OF BROADCASTING

2002

Technical description

1. Context

Television and radio (hereafter jointly referred as "broadcasting") are essentially transmitted over three types of networks: terrestrial and satellite, which use public radio spectrum, and cable. The relative position of cable and satellite television has increased over the years. However, even in those countries where terrestrial television is not the dominant television delivery mechanism, it will continue to play a significant role in the future. In Europe the spectrum allocated to terrestrial broadcasting is governed essentially by the 1961 Stockholm frequency planning agreement, which has been updated several times, notably to cater for the introduction of digital broadcasting.

Given that digital broadcasting is much more spectrum-efficient than analogue, the analogue turn off could potentially lead to a major release of spectrum capacity, although that will be preceded by a situation of relative scarcity during the analogue/digital "simulcast" transition phase. The released capacity could be used for one or several competing or complementary broadcasting offerings (e.g. higher picture quality, increased number of programmes, mobile reception, data services and interactive TV, etc), and/or be reallocated to non-broadcasting applications.

Digital broadcasting is part of a wider phenomenon: digital convergence, which implies that all types of binary data (image, text, sound) can increasingly be transmitted over, and received through, all communication networks and terminals. As a result, notwithstanding the fact that the actual market evolution will depend on consumers' acceptance, from a technical viewpoint video and audio services can potentially be provided over non-broadcasting networks and vice-versa. Digital convergence also opens the possibility for those traditionally separated networks to work together (e.g. convergence between digital television and mobile telephony). Digital convergence increases competition on the communications market and, in particular, may challenge the spectrum regulatory parameters which were adopted in an analogue context.

The Commission Action Plan *eEurope 2005 (COM(2002) 263)* aims at fully exploiting the possibilities of digital convergence, and includes digital television as part of a multi-platform approach to ensure access to the Information Society for all European citizens. Also in this context of convergence, *eEurope 2005* foresees that *"the Commission will initiate a discussion on new approaches to spectrum valuation and trading of rights-of-use of frequencies."* This type of discussions will take place within the EU regulatory framework for radio spectrum recently put in place[1], which will deal with spectrum issues affecting different policy areas, including electronic communications and broadcasting.

In this context, it should be noted that, according to recital 8 of the Radio Spectrum Decision:

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[1] See Decision Nº 676/2002/EC on *a regulatory framework for radio spectrum policy in the European Community* (Radio Spectrum Decision) and Decision establishing a radio spectrum policy group.

"Radio spectrum policy cannot be based only on technical parameters but also needs to take into account economic, political, cultural, health and social considerations. Moreover, the ever increasing demand for the finite supply of available radio spectrum will lead to conflicting pressures to accommodate the various groups of radio spectrum users in sectors such as telecommunications, broadcasting, transport, law enforcement, military and the scientific community. Therefore, radio spectrum policy should take into account all sectors and balance the respective needs."

The present study should serve as a complement to the requirement in recital 14 of the Radio Spectrum Decision to obtain appropriate information concerning the allocation, availability and use of radio spectrum in the Community, to help implement a cross-sectoral radio spectrum policy.

Moreover, the CEPT (*Conférence Européenne des Postes et Télécommunications*) has started preparations for an international conference tasked with replacing the 1961 Stockholm agreement by a new European frequency plan for terrestrial broadcasting. Also in this context it will be necessary to address the challenges from digital broadcasting switchover and convergence of communications.

2. Objectives of the study[2]

With regard to spectrum management[3] of, respectively, radio and television[4] broadcasting (terrestrial and satellite):

- Recall the analogue broadcasting legacy in Europe;
- Identify the challenges from the on-going transition to an all-digital scenario and the digital convergence of communication services, distinguishing between the two aspects and analysing the links between them;
- Analyse the possibilities and limits of new approaches and tools (more efficient and flexible) to spectrum management;
- Evaluate and advise on the feasibility of those new approaches within the administrative and regulatory frameworks relevant to European Union (EU) countries, notably the CEPT and the EU. Special consideration should be given to the efficient functioning of the European internal market for broadcasting services and products.
- Advise on how to reconcile deterministic spectrum planning with increasingly dynamic market developments and largely unpredictable technological evolution.

[2] The concept of "broadcasting" is valid as a starting point for the analysis, which should not be an obstacle for considering convergence issues later in the analysis.

3 Spectrum management is here understood as covering all administrative decisions regarding the use of spectrum, including planning, allocation and assignment decisions, further to policy choices in the areas concerned, for instance broadcasting.

[4] Both should be dealt with separately.

3. Background information

- Communication from the Commission on the *next steps in radio spectrum policy*.
- Decision Nº 676/2002/EC of the European Parliament and of the Council on *a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision)*
- Commission Decision *establishing a radio spectrum policy group*.
- Draft ECC report - *initial ideas concerning the revision of the Stockholm (1961) agreement*, January 2002.
- Member States' recent policy documents and legislation, such as the UK draft Communications Bill (in particular the spectrum section) http://www.communicationsbill.gov.uk/
- UK Radio Spectrum Management Review (an independent review for Department of Trade and Industry and HM Treasury) http://www.spectrumreview.radio.gov.uk/newsite/welcome.htm
- AEGIS study for the UK independent spectrum review on *implications of international regulation and technical considerations on market mechanisms in spectrum management* http://www.spectrumreview.radio.gov.uk/newsite/welcome.htm
- Study by BIPE for DG INFSO on the Digital Switchover in Broadcasting http://europa.eu.int/information_society/topics/telecoms/regulatory/studies/documents/final_report_120402.pdf
- Study by Eurostrategies for DG INFSO on the *"Assessment of the Member States measures aimed at fulfilling certain general interest objectives linked to broadcasting, imposed on providers of electronic communications networks and services in the context of the new regulatory framework"* (in preparation).
- EBU Technical review : N° 290 (April 2002) http://www.ebu.ch/trev_home.html