

**UMTS Forum Response**  
**to the RSPG Consultation**  
**‘Opinion on the spectrum implications**  
**of switchover to digital broadcasting’**

The UMTS Forum congratulates RSPG for its interesting consultation initiative ahead of the Regional Radiocommunication Conference (RRC-04), starting in May this year. We welcome the opportunity to comment to the EU preparatory process which is an important step in international negotiations in the framework of the new Electronic communication regulation favouring the convergence trends.

The Forum represents an important group of spectrum users which are directly interested in the results in terms of spectrum, of switchover to digital broadcasting. We are happy to provide an overview of the Forum's thoughts on the 'digital dividend' and the evolution of spectrum management in response to the following RSPG questions:

**Question 1: How can co-ordination between Member States on spectrum management, at bilateral and EU level, contribute to a quick and efficient switchover?**

The issue the public mobile communication industry is trying to address today is to ensure the appropriate spectrum usage, taking into account new technologies, convergence of traditional services and market requirements which will benefit from a more efficient use of spectrum. At a time when radio systems must satisfy the market requirements, offering access over complete territories and with increased capabilities and gradually becoming more flexible, close cooperation and coordination between Member States on spectrum management is crucial.

In fact, the coordinated approach on EU level, including an agreed Europe wide switchover schedule, is essential to fully benefit from European wide harmonisation in terms of an easy introduction of new, European-wide services, economy of scale on equipment and services, providing market driven usage and increased global spectrum efficiency. It will allow also an

improved co-ordination in border areas and improved global competitiveness of the whole European market.

**Question 2: In particular, what would be the added value from EU co-ordination ahead of the Radio Regional Conference starting in 2004 and other international negotiations?**

The added value of EU co-ordination prior to the Regional Radiocommunication Conference (RRC-04/05) is unquestionable if the more liberal and market driven approach would be adopted by the EU process. EU could discuss and elaborate on a coordinated way to ensure that the RRC-04/05, when establishing the New Digital Plan, is sufficiently forward looking not to hamper the possibility of identifying an amount of spectrum called "digital dividend". This may be possible after a partial, or certainly after the complete, switch off of analogue broadcasting, as a benefit related to the transition from analogue to digital techniques. The plans for all or parts of this digital dividend should be carried out on a harmonised basis. The Forum strongly supports frequency harmonisation on global or regional level.

Article 9.2 of the Framework Directive states « Member States shall promote the harmonisation of use of radio frequencies across the Community, consistent with the need to ensure effective and efficient use thereof and in accordance with the Decision No. 676/2002/EC (Radio Spectrum Decision) ». This harmonisation benefits the whole industry and also the users. Harmonisation also facilitates the availability of complex equipment at reasonable cost and appropriate timeframe.

**Question 3: Are greater transparency and technological neutrality of spectrum assignment, notably through valuation and market tools, instrumental to switchover?**

New approach may emerge to reflect market and technology evolution. The framework for spectrum assignment must therefore be set up with greater transparency and technological neutrality. It is particularly relevant in the context of convergence where broadcasting contents are delivered by broadcasters, as well as fixed and mobile operators. Non-discrimination between these different categories of actors in terms of rights and obligations attached to rights of use of radio spectrum is essential in order to avoid competition distortion between players operating on the same markets and avoid limiting freedom of choice for consumers.

UMTS Forum believes that the efficient use of the radio spectrum and the development of new services and technologies require the application of fair and identical spectrum fees and spectrum assignment methods to all players providing electronic communications networks and services.

As an example, the bands 470 - 862 MHz could be organized in a way, where the digital dividend is placed at the lower end of the broadcasting spectrum, being subdivided into a generic uplink and downlink spectrum.

**Question 4: What will be the “spectrum dividend” from switch-off, and how should this be allocated to specific services?**

Terrestrial digital broadcasting technology offers a number of benefits in comparison to terrestrial analogue broadcasting and in particular a more efficient use of frequency resources. In fact more information can be transmitted using less radio spectrum. The switch-off of the analogue services gives the possibility to obtain some “freed” spectrum, called “digital dividend”.

Migration of analogue to digital transmission technology is enabling more efficient usage of the radio spectrum. According to ITU-R SG1 “Digital television is approximately four times more efficient than analogue television in the broadcasting service.”

As a consequence, it is expected that the “spectrum dividend” from analogue television switch-off can represent a significant amount of spectrum and it should be considered whether this spectrum could be allocated to mobile services. Especially, the frequencies below 600 MHz, could be an important alternative for operators to extend the coverage of their UMTS/IMT-2000 networks in a cost effective manner, particularly in low density populated areas.

In the context of convergence, the UMTS Forum recommends to think about where interactive broadcast, mobile and fixed communication services are targeting the same market. For this target, the spectrum dividend could be seen e.g. for mobile communications, interactive broadcast, DAB- and DVB-Handheld.

Although it may be difficult for the first session of the RRC to identify what this digital dividend could be, it may be beneficial to take into account the advantages of harmonisation. It is necessary to take appropriate measures well in advance to ensure harmonised approach for this digital dividend, so that Europe could draw full benefits (to take advantage of economies of scale, improved spectrum co-ordination between countries and interoperability, among other benefits).

**Question 5: Does convergence require more flexible allocation mechanisms than traditional ones, which tightly link frequency bands and individual communication services according to ex ante decisions?**

Convergence and rapid technological evolution require the possibility to use the spectrum in a more flexible way. Thus, more flexible spectrum management seems to be desirable, but special care must be taken when implementing such mechanisms not to hamper the positive effects of global or at least European harmonisation, in particular for services such as mobile communications.

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