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**TELECOM ITALIA GROUP'S CONTRIBUTION TO THE
CONSULTATION IN THE CONTEXT OF THE DEVELOPMENT
OF A RSPG OPINION ON THE SPECTRUM IMPLICATIONS OF
SWITCHOVER TO DIGITAL BROADCASTING**

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

The level of use of the broadcasting frequencies in neighbouring countries can be quite different. This has as a consequence that some countries, because of the high level of use of analogue frequencies, have very few frequencies left over for digital transmissions during the transition period.

In many cases the use of those remaining frequencies can create interference problems with neighbouring countries. Furthermore, the only solution, in many cases, would be a modification of the frequency use in the neighbouring country and not in the country deploying digital terrestrial networks.

The process of international coordination can be very lengthy, thus potentially slowing down the full coverage in digital, with all the consequences on the timing of analogue switch off.

Coordination needs in such cases be done as quickly as possible, in a spirit of cooperation, more than in a spirit of protection of national frequency assets and allocations.

Intervention by the European Commission, to arbitrate conflicting points of views (including financial consequences) could be instrumental in speeding up the resolution of the issues.

- **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?**

Member States have different timings for analogue switch off and different plans for the re-allocation of potentially free spectrum.

But in any case the decision to re-allocate, or not, potentially free frequencies would gain from being uniform at European level.

This would ensure that the new allocation process is harmonized in terms of timing, quantity, and frequencies, and guarantees a continuing uniform use of the frequency bands across Europe.

Of course any reassignment of frequencies should take in to account the specific national situation above of all in Member States where some broadcast network operators are in a dominant position.

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

Market mechanisms are an important tool in insuring maximum transparency in the assignment process. However one must remember that DTTV is a substitution technology for Terrestrial TV operators and not a new market. The cost of this substitution is high, and therefore one should be careful in making it even higher through indiscriminate increase in the cost of using frequencies.

Technological neutrality is an important factor for the success the switch over of audio-visual (AV) broadcasting to digital transmissions. These means that multiple networks (from broadcasting, to cable, to satellite, to DSL, etc.) and multiple terminal types (not only tv sets, but also computers, mobiles, etc.) will be a fundamental contribution. However, for the use of the “broadcasting spectrum”, one should not forget the specific social value of pure broadcasting with its zero marginal cost (and thence a zero connection cost for the end-user).

Telecom Italia believes that terrestrial digital broadcasting will remain an important distribution means even after switch over.

Certainly in many countries the cost difference of frequencies for different services becomes too marked. This makes difficult both the spectrum trading among different services, and the frequencies reallocation. In fact, the relevant costs paid by mobile operators for UMTS frequencies must be considered, in order not to disrupt market conditions. The efficient use of the radio spectrum and the development of new services and technologies require the application of consistent terms and conditions to all undertakings providing electronic communications networks and services.

The technological neutrality of frequencies allocation is an aim which has to be pursued gradually, in order not to provoke a rapid increase in the cost in frequencies used for broadcasting.

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

The spectrum dividend should not be evaluated on the possible income (for the State) from the sale of frequencies for other uses than broadcasting, at prices similar to the UMTS auctions. In that sense, the spectrum dividend is not the main benefit of switch over.

The social dividends of the digital switch over of broadcasting are potentially much larger. The presence of digital television receivers in every home, with their new and

supplementary potential through digital interactivity, will be a major tool for the development of a knowledge based economy.

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

Digitalisation of the networks already makes the strict linkage between service type and frequency band obsolete, in technical terms: bits – representing content – can travel on any digital network, independently of its specific physical characteristics. This is very different from the analogue world where the physical characteristics of the network would determine the type of content that could be transmitted.

The same spectrum could be used for other broadcast services, but in complementary way rather than in a competitive way. To maintain a balance, a strong allocation framework with a supply implementation policy would probably be needed, to handle co-existence of different kinds of services, with extremely diverging income models. In general terms a flexible approach should be pursued, providing for mechanisms of frequency re-allocation to the same kind of services.