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## **Response to the RSPG consultation on the spectrum implications of switchover to digital broadcasting**

Teracom AB is the main network operator for terrestrial broadcasting services in Sweden.

Teracom welcomes the initiative from RSPG to issue a public consultation on spectrum implications in the light of the transition to digital technology in the terrestrial broadcasting platforms. As probably known, the Swedish Parliament has already decided on a switch-off date for analogue terrestrial television services in Sweden. Such a switch-off shall be finalized by the 1st of February 2008. This means that the issues discussed in this consultation are already considered in detail in Sweden.

Please find below the detailed answers to the consultation.

Yours sincerely

Göran Arvedahl  
Executive Vice President

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

From a technical perspective, coordination of spectrum management in general is best arranged via the ITU and CEPT. The CEPT membership is wider than the EU membership and CEPT has an existing infrastructure to arrange coordination including the necessary technical expertise.

However, in addition to the technical aspects of spectrum management there are also policy aspects. EU should play an important role to facilitate the process and to co-ordinate Member State actions. We believe that it is important that the transition period is not too long and that credible and reasonable timetables are set-up all over Europe. Generally simulcasting of analogue and digital services is a non-efficient process that is financially burdensome. There is also a spectrum efficiency implication. The introduction of digital services is hampered by the need for protection of existing analogue services, also in neighbouring countries. All countries are interdependent and a long transition period in some countries may prevent their neighbours from taking the full advantage of going digital. Therefore Teracom believes that a short simulcasting period should be promoted at a European level and the switchover process co-ordinated as far as possible.

It should also be noted that recent technical development has provided the basis for a wider perspective to digital broadcasting, than to only replicate and expand the services provided with analogue technology. Both the DVB and the DAB systems provide new opportunities for broadcasting in a mobile and handheld environment. In order to fully exploit those possibilities the regulatory and spectrum framework must be adjusted to create new business opportunities for Europe. The EU could try to assist this process by promoting a harmonised introduction of such convergent broadcast based services that can realise TV and TV-like services in mobile terminals.

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

The European Commission could:

- Promote and clarify the advantage of a short, scheduled and harmonized switchover.
- Follow up that each Member State establishes a switchover timetable.
- Support that a framework that is sufficiently forward-looking and at the same time giving the necessary stability and flexibility for the future, is adopted at the Conference.
- Identify and promote new business opportunities provided by digital technology, including those for convergent broadcast services.
- Establish a policy for digital radio in Member States.

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

There is of course a need to use the spectrum efficiently. However, one must be cautious in introducing market tools in the process. Especially for public service broadcasting it is extremely difficult to establish a proper market value to the used spectrum since the coverage requirements are primarily based on public interest rather than revenue based.

Experience from the telecommunication sector shows that there is an obvious risk of introducing additional problems rather than to bring solutions. A short term hype of a certain type of service may lead to an unbalanced situation both in terms of spectrum allocations and additional costs for the industry, creating big obstacles for the proper introduction of new systems and services. There is also a big risk that using the revenues from existing services to set a price for future services will have negative influence on innovation.

Teracom is of the opinion that introducing valuation and market tools to broadcasting will slow down the switchover process rather than assisting it, since this will add extra costs and complexity to the process.

*(4) What will be the "spectrum dividend" from switch-off, and how should this be allocated to specific services?*

It is not exactly clear what is meant by the "spectrum dividend". The full benefit from digital broadcasting cannot be reached until analogue services are switched off and any spectrum dividend will not appear until then. In some Member States the transition strategy is to change almost over night from analogue to digital transmissions using the same frequencies, not really providing any released spectrum at all. Generally it can be assumed that the spectrum dividend will primarily consist of new possibilities using broadcasting platforms.

Teracom believes that there should be a priority for broadcast based services when assessing the spectrum possibilities in relation to switchover. This includes:

- Traditional TV services. TV has a great impact on society and it is reasonable to provide a larger variety of TV channels also to the terrestrial audience. Terrestrial television gives the best basis for local, regional and national services tailored for a local public rather than a pan-European public. In order to be competitive with other platforms there is a need to broaden the program offer today provided in the analogue environment both in terms of quality and quantity of programmes.
- Broadcasting services to new types of terminals, especially mobile and handheld. New technologies such as DVB-H very well support convergent broadcast based services. It is considered to be a win-win situation in that content providers, broadcasters, telecom operators and broadcast network operators can all benefit from such usage.

- Advanced TV services. It is today unclear to what extent HDTV services will be introduced in terrestrial networks, but spectrum planning is a long-term activity and the possibilities for this kind of services should be kept also in the terrestrial environment. In any case it is very probable that the future service offer will include services with higher sound and picture quality than today, thus adding to the spectrum demand.
- Digital audio services. Digital radio is now starting to take off in several Member States. Also for digital radio there is a need for a wide and attractive offer to the public, including services that are not available today in analogue radio. The DAB system as well gives the possibility for new and additional data services. Additional spectrum for DAB should be provided in VHF band III in the switchover process.

*(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?*

Traditional allocation mechanisms generally allow for technical stability and harmonisation in terms of interference control, channelling arrangements and terminal development for a mass market.

However, in terms of what actual services are carried on a particular technical platform the need to maintain the rigid traditional borders between services are less evident. Teracom believes that certain flexibility for the development of new business opportunities in a particular platform as well as provisions for technical evolution over time is needed. The international spectrum related framework should be based on meeting specific interference criteria thus giving the required flexibility for the future, even though harmonised use of the spectrum in Europe should generally be promoted in order to fully benefit from standardisation and mass market terminal production.