

Response to the Public Consultation on the draft

RADIO SPECTRUM POLICY GROUP OPINION ON THE DIGITAL DIVIDEND (RSPG09-272)

Teracom welcomes the opportunity to provide its comments to the draft RSPG Opinion on the Digital Dividend.

Teracom is the major network provider for terrestrial broadcasting in Sweden. The Teracom group also operates the terrestrial pay TV services in Sweden, Denmark and Finland, through its subsidiary Boxer. Furthermore, Teracom is providing site and collocation services to mobile operators and is thus involved also in business activities in the mobile sector in Sweden.

Digital terrestrial television was launched in Sweden already in 1999 and analogue switchoff was completed in October 2007. With this background, Teracom has ample experience from complex network roll-out and replanning, including marketing of services and providing adequate information to the general public, on an increasingly competitive media market. We are especially aware of the difficulties associated with major changes imposed to a large portion of the viewers in a country and we believe that the challenges associated with replanning and forced changes for the general public should not be underestimated.

Comments are given to selected sections of the draft RSPG Opinion.

1. Introduction

As pointed out in the first paragraph of the draft Opinion, the question of how to handle any potential digital dividend in Member States is directly related to the switchover from analogue to digital terrestrial television. The television distribution market in Europe is going through large changes. It is particularly evident that the market demand is going both towards an increased number of services and better technical quality. Digitalisation means benefits for the consumers in terms of a wider selection of television programmes also in the terrestrial networks as well as new functionality and innovative services. Old CRT receivers are successively being replaced with high definition flat screens which in turn leads to growing demand for high definition television services in all European countries.

The terrestrial TV networks need to respond both to the demand for more channels and to the demand for HDTV. Even if competition between distribution platforms such as satellite, cable, broadband ip tv and terrestrial is increasing, it must be noted that terrestrial networks still serve, and will remain to serve, a significant portion of European households as their primary means of receiving television content. Terrestrial networks generally provide for universal coverage of television services. At

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the same time, it must also be noted that the digitalisation of the terrestrial TV networks are at very different stages across Europe and switch-off of analogue services are not yet even scheduled in many countries.

In order for terrestrial networks to remain competitive and to be able to promote cultural diversity and media pluralism for all European citizens, the necessary spectrum resources need to remain available. In particular, it must not only be possible to simulcast analogue and digital services during transition but also to migrate to HDTV. For terrestrial television broadcasting there are no alternatives but the frequency bands given by the GE06 Agreement and any development of the networks needs to be accommodated in those bands. In contrast, there are many bands with huge amounts of spectrum already allocated to mobile services, including mobile broadband. As Teracom sees it, operators of terrestrial broadcasting networks are forced to implement several successive phases of reinvestments and replanning in order to be able to retain and develop services in the remaining available spectrum, whereas the mobile broadband industry does not face the same challenges.

In Section 1 it is stated that it is *foreseen that in bands below the 800 MHz band, i.e., 174-230 MHz and 470-790 MHz, the digital dividend will be used mainly for the development of new enhanced broadcasting services which will also bring significant benefits to society in terms of value to the industry and consumers*. Teracom would like to strongly support that statement. It is very important for the broadcasting industry to get stable conditions for the further development of the networks, including establishment of digital networks and migration towards more advanced technology such as MPEG4 and DVB-T2. Large investments are going to be needed and any uncertainty regarding spectrum availability may slow down or even interrupt this process.

The present situation in Sweden can be taken as an illustration of the very difficult spectrum situation for broadcasting. There are currently five digital terrestrial television networks in operation and the sixth network is being prepared. Following the 2007 decision in Sweden on limiting broadcasting in the UHF band to 470-790 MHz, there are very limited spectrum resources left in this band for further development of the broadcasting services. It is a very complex task to find possibilities for the necessary migration to HDTV using MPEG4 coding and eventually DVB-T2. Any changes to the existing networks need to take into account the perspective of existing viewers as well as frequency coordination agreements with neighbouring administrations.

2. Background

Teracom supports the view that any coordinated approach for the usage of the digital dividend in the band 790-862 MHz should be on a non-mandatory basis. The implementation should give room for national considerations and give Member States the freedom to take into account their national service requirements.

3.1 Development of technical elements

CEPT is now in the process of finalizing the technical parameters and channel arrangements for electronic communication networks and services in the 800 MHz

band. As stated in draft CEPT Report 30¹ the technical parameters are however not stringent enough to always ensure protection of broadcasting services in the band below 790 MHz.

For example, there are several different block edge masks specified, which limits broadcasting opportunities immediately below 790 MHz to various degrees. In Teracom's opinion the most stringent block edge mask should be used everywhere in order to improve co-existence. If the new networks and services are introduced in a way that causes harmful interference to existing and future broadcasting services, this will be very spectrum inefficient and cause unnecessary limits to the usefulness of adjacent spectrum.

In order to solve remaining interference cases, additional mitigation measures will be needed. These measures need to be specified on a national or local basis and could include restrictions to the mobile networks and other appropriate mitigation techniques. The RSPG Opinion should emphasize the need for Member States to implement all necessary measures to provide adequate protection for the reception of broadcasting services. One solution that should be explored is to introduce a general protection clause vs broadcasting services in the licences for the new services.

3.2 Benefits of a coordinated availability of the 800 MHz frequency band throughout Europe

The need for more frequencies for mobile broadband and the possibility for making the 800 MHz band available for such services is not the same throughout Europe. The availability is for example depending on current national broadcasting licensing conditions. In many countries there are existing broadcasting licences that are based on or partly based on frequencies also in the band 790-862 MHz.

Teracom is of the opinion that the availability of the 800 MHz band for other purposes than broadcasting should be due to national circumstances and markets and not be made mandatory throughout Europe.

3.3 Encouraging Member States to enter into frequency coordination agreements

It is already common practice for Member States to enter into frequency coordination agreements and it is not clear why the 800 MHz band needs a special treatment in that respect. In coordination negotiations it is important that existing broadcasting services do not have to suffer from harmful interference coming from new entrants.

4.3 Timeframes for making available the Digital Dividend in the 800 MHz band

The deployment of digital terrestrial television is at different stages in different parts of Europe and every country is at a different phase of the digital switchover. One basic condition for making any digital dividend available at all, is that analogue TV transmissions are transferred to digital. In order to have a successful analogue-to-digital switch-over it is detrimental that digital services are available well in advance of the

¹ CEPT Report 30 "The identification of common and minimal (least restrictive) technical conditions for 790-862 MHz for the digital dividend in the European Union"

switch-off date, preferably with an offer that drives the market and makes it attractive for consumers to opt for digital rather than being forced due to analogue switch-off. The digital coverage needs to be at least as large as the analogue coverage. A certain simulcast period is needed to give viewers time to adopt to the new digital technology. If a large part of the population is not appropriately prepared for the switch-over, all involved stakeholders will face a very challenging situation.

In Member States where digital television is already established and analogue services have been switched off, there are generally a need for significant replanning of the networks if the 800 MHz band should be evacuated. The planning and potentially new frequency agreements with neighbouring countries as well as the rearrangement of the networks will inevitably take considerable time and effort.

All these issues need to be handled in order to evacuate the 800 MHz band and obviously it takes a great deal of time and money. The complexity is likely to vary across Europe and this will influence the possible time frames.

4.4 International frequency coordination

All Member States will generally need to reach new coordination agreements with neighbouring administrations in order to be able to introduce new services in a band that is covered by the GE06 Agreement, with other Member States but in many cases also with non-Member States. Coordination is required in order to ensure that broadcasting services in neighbouring countries are appropriately protected, but also to enable adequate protection for the new services.

It should be noted that any replanning of broadcasting transmissions may give rise to consequential changes to the broadcasting plan, in some cases involving also third party administrations.

4.5 Cost of clearing out the 800 MHz band

The experience in Sweden shows that replanning existing broadcasting services in order to free up a certain sub-band within the TV band is a complex and very costly activity. Finding new frequencies for TV transmissions, especially high power, is very challenging from a technical as well as a negotiation point of view. A new frequency for a transmission is generally associated with deteriorated coverage and higher interference levels in certain areas. Viewers in those areas may lose their TV services if additional measures are not introduced. A frequency change is likely to introduce large costs and efforts for the responsible network provider, for redesign and upgrading of transmission and antenna systems etc, but also for information activities and market disruption. Affected viewers may need to reinvest in a new antenna to be able to receive the new frequency. There may also be a need to restore the broadcasting service area through new additional broadcasting sites. This means large costs and, if reception relies on roof top antennas, households may need to readjust their antenna direction.

It is claimed by certain stakeholders that using the digital dividend for other services than broadcasting is creating significant economical benefits. Furthermore, spectrum auctions for digital dividend spectrum may raise substantial amounts of revenue for administrations. With this in mind, it does not seem to be justified that the broadcasting sector should be forced to carry the costs for the clearance of the band or for any

measures needed to ensure that viewers are not adversely affected by the introduction of new services in the band. Broadcasters are already investing a lot of money to establish digital networks and phase out analogue services and will have severe difficulties carrying additional expenses for the benefit of another sector.

Teracom is of the opinion that, if the 800 MHz band should be evacuated by broadcasting, the incurred costs, including costs for interference handling, should be carried by the new entrants, directly or through a part of any auction fees raised. The broadcasting sector should not have to carry the costs. The RSPG Opinion should underline that Member States need to find appropriate ways to finance any necessary measures in order to free the sub-band and to ensure that there are no significant impact on broadcasting reception.

5. Assessing the merits of a coordinated EU approach, including harmonisation as appropriate, to making available the 800 MHz band for ECN and ECS, other than broadcasting transmission networks and services

There may be advantages and disadvantages of a coordinated EU approach. Time scales for the digital switch-over process are different in different Member States and thus time scales for the potential availability of the digital dividend varies across Europe. Any assessment of the merits of a coordinated EU approach should address also the disadvantages, including the consequences for existing or planned services in the 800 MHz band.

7. The Opinion of the RSPG

In line with the comments above Teracom has the following remarks to the draft recommendations.

In the introductory paragraph it should be recognized that the transition to digital television technology provides an opportunity to enhance sound and picture quality and to provide a significantly widened programme offer to the large number of viewers that depend on terrestrial networks for television distribution, thus promoting cultural diversity and media pluralism for all European citizens.

Recommendation 1. Teracom supports that advantages and disadvantages of options for a coordinated non-mandatory EU approach should be assessed, including the consequences for existing or planned services in the 800 MHz band.

Recommendation 4. The proposed technical elements such as channelling arrangements and common and minimal (least restrictive) technical conditions for the new services do not always provide adequate protection of broadcasting services and the recommendation should underline that additional mitigation techniques will be needed on a national or local basis. The recommendation should emphasize the need for Member States to implement all necessary measures to provide adequate protection for the reception of broadcasting services. One solution that should be explored is to introduce a general protection clause vs broadcasting services in the licences for the new services.

Recommendation 5. Cross-border coordination of new services needs to take into account the continued protection of existing and planned broadcasting services on the

same frequency channels and/or adjacent channels. This should be reflected in the recommendation.

Recommendation 7. Teracom finds that Recommendation 3 and 7 seems to be contradictory. Generally there is an inconsistency in the terminology regarding which new services that may be introduced in the 800 MHz band and which services that may not (especially in relation to broadcasting services).

Furthermore, Teracom is of the view that there are certain elements that should be reflected and thus amended in the recommendations.

The RSPG recommendations should reflect that also the broadcasting sector needs stable long term conditions to enable necessary investments for the establishment and further development of the broadcasting networks.

It should be recommended that Member States ensure adequate funding of necessary changes to the broadcasting networks and any necessary measures in order to maintain reception quality for affected viewers.