Reaping the full benefits of the digital dividend in Europe: a common approach to the use of the spectrum released by the digital switchover

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PURPOSE: the purpose of this Communication is to propose EU coordinated action to ensure the optimal use of the “digital dividend”.

BACKGROUND: the digital dividend can be described as the spectrum over and above the frequencies required to support existing broadcasting services in a fully digital environment – including public service obligations. Thus, the switchover from analogue to digital terrestrial TV, by the end of 2012, will free up an unprecedented amount of spectrum in Europe as a result of the superior transmission efficiency of digital technology. This offers the EU a unique opportunity to meet the fast growing demand for wireless communication services and it opens up sufficient spectrum for broadcasters to significantly develop and expand their services while at the same time ensuring that other important social and economic uses (the “digital divide”) have access to this valuable resources. The digital dividend could potentially be a “win /win” situation for all interested parties. Of even more interest is the fact that the spectrum of the “digital dividend” is particularly attractive given that it is part of the “best” spectrum located between 200 MHz and 1 GHz. Its good signal propagation entails less infrastructure to provide a wider coverage. This reduces cost and improves service as well as being able to reach remote populations in rural areas.

The current digital dividend is highly fragmented into relatively narrow bands, scattered over many frequencies and intertwined with digital broadcasting channels. Yet, it is estimated that the total value of electronic communications services that depend on use of radio spectrum in the EU exceeds EUR 250 billion – which is about 2.2% of the annual European GDP. The dividend underpins every type of wireless application form broadcasting to fixed and mobile communications. The digital dividend, a public resource, offers an exceptional social, cultural as well as economic potential. However, the benefits can only be fully reaped if it is coordinated at an EU level in order to ensure optimal use of the dividend.

CONTENT: based on the above the Commission is proposing to move towards a common spectrum plan at EU level. This would increase spectrum efficiency thus enhancing the overall capacity and ranges of uses of the digital dividend.

Preserving flexibility: The Commission recognises that the spectrum situation may vary in each Member States depending on the specific broadcasting environment. The common spectrum plan would therefore have to be phased in with sufficient flexibility in order to accommodate legitimate national specificities, such as social and market needs.

Preparing the ground: To pave the way for a harmonised clustering of spectrum bands, the Commission proposes to undertake preparatory work to address a number of important challenges. This includes determining the size, boundaries and access conditions for each sub-band hosting a particular type of network and associated cluster of services. Preparatory work will address the identification of administrative and technical costs involved in displacing services to new frequency bands. Having prepared the ground for a more harmonised approach, the Commission will then use binding Community law to adopt a clustering decision.

Establishing “application clusters” in common spectrum bands: The proposed clustering of spectrum should apply to the main part of the digital dividend, the UHF band. It would constitute a “top-level”

spectrum organisation upon which national and EU-wide plans can be developed, defining the bounds within which national flexibility can be exercised by allowing the different levels of EU harmonisation for each cluster. Concretely speaking, the clustering should be based on three sub-bands for the three most common types of network namely: (i) unidirectional high power networks (mainly for fixed broadcasting services); (ii) unidirectional medium to low power networks (typically for mobile multimedia services and newer forms of converged broadcasting/communications services) and (iii) bi-directional low power networks (typically for fixed and mobile broadband access services).

To conclude, the Commission calls on the Member States to facilitate the introduction of new services by working closely with the Commission to identify common spectrum bands in the digital dividend that can be optimised by application clusters. For its part, the Commission will prepare the required measures to reserve and coordinate common bands at an EU level.