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Ericsson comments on Consultation on Transforming the digital dividend opportunity into social benefits and economic growth in Europe

Ericsson is the world's leading provider of technology and services to telecom operators. Ericsson is the leader in 2G, 3G and 4G mobile technologies, and provides support for networks with over 1 billion subscribers and has a leading position in Managed Services. The company's portfolio comprises mobile and fixed network infrastructure, telecom services, software, broadband and multimedia solutions for operators, enterprises and the media industry. The Sony Ericsson and ST-Ericsson joint ventures provide consumers with feature-rich personal mobile devices.

Ericsson is advancing its vision "to be the prime driver in an all-communicating world" through innovation, technology, and sustainable business solutions. Working in 175 countries, more than 75,000 employees generated revenue of SEK 209 billion (USD 32.2 billion) in 2008. Founded in 1876 with the headquarters in Stockholm, Sweden, Ericsson is listed on NASDAQ OMX Stockholm and NASDAQ New York.

1 Summary

Ericsson appreciates this initiative by the European Commission to derive the maximum economic and societal benefit from the Digital Dividend spectrum. The evolution of technology, with the introduction of Mobile Broadband technologies as well as the introduction of spectrum efficient digital broadcasting has radically improved the opportunities to implement the policy goals of the European Union (EU). Evolving market demand for mobility, personalization with access to a broad range of content, and applications whenever and wherever they are needed, leads to the need to carefully consider and optimize the utilization of this valuable natural resource. The spectrum band 470-862 MHz is unique due to its propagation characteristics i.e. its capability to support mobile broadband services with full area coverage also in less populated areas in cost efficient manner.

2 Need for harmonized regulation

The main characteristic of this spectrum band is its excellent wide area propagation properties. To maximize this key aspect of the Digital Dividend spectrum, strict measures to avoid waste are necessary. An EU harmonized band plan for 790-862 MHz, including clear allocations of uplink and downlink transmissions directions, is necessary to avoid cross border interference issues as well as to reduce inter-operator planning problems within national borders. A harmonized approach across the EU will additionally reduce equipment complexity and create economy of scale benefits that facilitate affordable consumer terminals, services and applications.

An EU wide implementation of a roadmap is needed to achieve a critical mass in product supply and thus create maximum spectrum efficiency. This plan should include necessary flexibility with respect to timing to cater for different needs and legacy issues across Member States with such timing flexibility being exception cases, needing appropriate justification.

Bearing in mind the significance of the Digital Dividend it is of utmost importance that analogue switch-off do take place in all Member States as early as possible but no later than the EU target date of 1 January 2012.

We furthermore emphasize the need for EU, in order to maintain its lead in Mobile Broadband communication, to proactively drive an additional band plan and implementation schedules for the introduction of Mobile Broadband in the range 470-790 MHz. Other regions are considering wider spectrum arrangements (e.g. 2*50 MHz) and unless appropriate action is taken, Europe would be disadvantaged by having a too constrained spectrum allocation for Mobile Broadband in this compelling range of spectrum. Therefore a longer term plan, covering the entire 470-862 should be envisaged for Europe as soon as possible.

3 Fostering efficient use of spectrum

In order to fully utilize the Digital Dividend, spectrum efficiency and co-existence across adjacent mobile broadband and DTT services need to be carefully considered. The spectrum efficiency requirements should be equally demanding for any service or technology utilizing the Digital Dividend. The spectrum efficiency of the most recent DTT technology, DVB-T2 utilizing MPEG4 codec's, is on par with mobile broadband technologies. There is therefore no justification from a cost/complexity perspective to be less demanding for a broadcasting TV receiver compared to a mobile broadband device receiver. A too lenient adjacent channel suppression requirement for DTV receivers implies a significant cost penalty in deployment of mobile broadband infrastructure in adjacent spectrum bands.

Coexistence between mobile broadband and broadcasting TV services requires adequate interference resolution and active spectrum efficiency management. This is essential to avoid spectrum waste and limit the cost of infrastructure deployment.

Additionally, for the most efficient use of spectrum, spectrum management practices following a carefully planned approach together with the most modern innovative technologies, that among other things avoids unnecessary TV white spaces, is recommended to best utilize this unique and scarce spectrum resources in the range 470 – 862 MHz, e.g. by utilizing SFNs for DTT and the advanced and flexible access properties of the current and future LTE systems.