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Communications and Technology Branch
Commerce, Industry and Technology Bureau
2/F, Murray Building
Garden Road
Hong Kong

Re: Ericsson's Response to Consultation on Digital Broadcasting

1. Introduction

Ericsson appreciates this opportunity to provide comments to the Commerce, Industry and Technology Bureau (CITB) with regard to its consultation paper entitled "Consultation on Digital Broadcasting: Mobile Television and Related Issues" issued on 26th January 2007.

This paper outlines Ericsson's principal views on Part E of this consultation which addresses the Spectrum Availability issues to support introduction of mobile TV services in Hong Kong.

2. Ericsson's views on spectrum usage in the range 470 – 862 MHz¹

It is Ericsson's view that the spectrum in the range 470 – 862 MHz is an essential and unique resource that should in particular be used to provide for the mobile service needs of the general public rather than for dedicated usage such as digital broadcasting.

As can be seen from the value and characteristics of the GSM and IMT-2000 systems currently available in higher frequencies, the amount of spectrum released through digital switch-over in this frequency range will be very beneficial to Hong Kong if used for these technologies, allowing the deployment of larger cells with significant coverage benefits. Some of the technologies under the IMT-2000 standards are delivering the most successful and innovative services to the general public now, and in the future, having already attracted more than 100 million users on a worldwide basis.

Ericsson is further convinced that the 3rd Generation Partnership Project (3GPP) specified "Multimedia Broadcast and Multicast Service" (MBMS) for IMT-2000 could satisfy many needs for distribution of broadcast television contents. MBMS is expected to be deployed in commercial network from beginning of 2008.

An important feature of MBMS is that it can be multiplexed with existing services on the same carrier. This will allow mobile users in Hong Kong to enjoy combinations of voice, internet and interactive TV services over common device and network infrastructure in a seamless manner. MBMS can also be customized to allow different forms of content to be broadcast in different areas of the network. And it is expected that MBMS will stimulate the development of new mobile mass-media services in Hong Kong.

On the radio interface MBMS supports true broadcast, i.e. the transmission is independent of the number of receivers. Also the service management supports broadcast services with free-to-air or conditional access (subscription) based offerings, which is normal practice within traditional broadcasting network operations.

¹ This spectrum range includes the UHF Band (470MHz – 806MHz) being discussed in the consultation paper.

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3. Ericsson's views on spectrum usage in the range 2500 – 2690 MHz

With the growth of mobile broadband services accelerating globally as well as regionally, and specifically the recent and significant launches of IMT-2000/HSPA (high speed packet access) services by the mobile broadband operators in Hong Kong, the success of these deployments suggest that the availability of the extension spectrum for allocations to ultra high speed mobile broadband networks will provide crucial opportunities for the consumers, businesses and governments in the future.

The amount of new spectrum is needed to provide high data-rates for the public mobile broadband communication environment to facilitate applications such as:

- Rich Voice Services: VoIP, video telephony, video-conference, collaborative work
- Location-based services: car navigation, maps, product and service finder
- Machine-to-Machine: sensor nodes in products and electronic devices and home appliances
- Mobile Internet Access: e-mail, file transfer, streaming video/audio, Internet browsing
- Multimedia Messaging: e-mail, instant messaging, video messaging, telemetry
- Entertainment: multiplayer games, TV broadcasts
- Mobile commerce: banking, finance, promotions, m-payment
- Mobile Intranet: VPN, Intranet access
- Mobile medicine: health monitoring, mobile medical examination, medical record access
- Mobile Government: remote learning, network community school
- Mobile Education: virtual laboratory

The allocation of this IMT-2000 extension spectrum band, 2500 – 2690 MHz, should be made to readily available IMT-2000 broadband systems as key to the future of mobile higher data rate broadband services. An important element of success is the development of a global ecosystem for all players involved including the importance of providing affordable terminal devices for all consumers; hence aligning policies with those deployed in Europe and the US as a suitable regulatory starting point for Hong Kong.

It is Ericsson's view that the full 2500 - 2690 MHz band should be designated as an extension band for IMT-2000 (3G) systems, which includes WCDMA, HSPA, eHSPA and LTE (Long Term Evolution). IMT-2000/LTE, for example, is in the final stages of specification, standardisation & development, and Ericsson has already demonstrated a LTE system capable of delivering over 144 Mb/s peak download rates using a bandwidth of 20 megahertz. Considering the need for extended bandwidth of LTE systems that are capable of delivering ultra high data rate services, it is important to make the band available in a harmonized manner and by allocating contiguous blocks of spectrum for the licensing process.

It is clear that the success of frequency division duplex (FDD) technologies providing area wide coverage services, such as GSM, WCDMA and its derivatives will continue to dominate mobile access market share and provide the best economy of scale for a market. The ability to leverage global economies is critical and our firm predictions are that GSM / WCDMA /HSPA / LTE technology path will maintain its > 80% market share globally.

Ericsson would like to again thank CITB for the opportunity to comment on this consultation and we believe that further development on mobile TV will benefit consumers and businesses in Hong Kong.

Sincerely,



Michael Lee
Chief Technology Officer, Ericsson Limited, Hong Kong