Huawei response to the PTS public consultation documents: "Remiss av allmän inbjudan till auktion i 700 MHz-bandet"

Summary

Huawei welcomes the opportunity to comment on this important consultation related to the clearance of the 700 MHz band.

700 MHz clearance for commercial mobile networks

Huawei supports PTS's decision to make the "core" 700 MHz spectrum (i.e. 703-733 MHz and 758-788 MHz) available for use by commercial mobile networks at an earlier date than the currently proposed by the European Commission deadline for the harmonised EU 700 MHz clearance. We believe it is important for Sweden to be at the forefront of mobile deployments at 700 MHz, in order to realise – as early as possible and to the greatest extent possible – the economic and societal benefits of high-speed and wide-area coverage mobile broadband services via 4G, 4.5G, and 5G mobile networks.

M2M communications

We consider that licensed access to spectrum is essential for many important IoT applications – and associated M2M communications – where guarantees of quality of service are required. Given the typically low data rates and bandwidths involved, we consider that such M2M communications can be effectively supported through the use of spectrum that is harmonised and designated for electronic communication services (commercial mobile networks). We consider that commercial mobile networks are well placed to provide the appropriate levels of service for M2M communications to a range of vertical industries, and can exploit huge investments in radio infrastructure and economies of scale in equipment. The 700 MHz band licensed for commercial mobile networks provides an excellent opportunity for efficient wide-area provision of M2M communications.

Technical conditions

Huawei notes that the technical conditions, in particular the out-of-band emission limits for the base stations, proposed by PTS for all spectrum lots (FDD1 to FDD5) are taken from those recommended by CEPT and provided in the Commission Implementing Decision (EU) 2016/687 of 28 April 2016. We assume that the proposed out-of-band emission limits ("Bilaga A – Förslag till tillståndsvillkor") provide the necessary flexibility to PTS to authorise at a later date the use of the spectrum in the guard band (694-703 MHz) and duplex gap (733-758 MHz) according to the national needs and market demand.

We would like to present two specific considerations regarding the proposed technical conditions:

- the proposed by PTS limit of -50 dBm per cell in 5 MHz measurement bandwidth for the 698-703 MHz band will provide the necessary protection and thus will make it possible to use this spectrum for the uplink transmissions of public protection and

disaster relief (PPDR) networks (paired with downlink in 753-758 MHz). Huawei assumes that this option was behind the proposed by PTS limit and welcomes this.

- the proposed by PTS limit of -4 dBm per antenna in 5MHz measurement bandwidth for the 738-748 MHz band is the most stringent of the recommended values and thus provides the full flexibility to PTS to utilize in the future this part of the duplex gap for any harmonised by the mentioned EU Decision application. However this flexibility may come at an increased cost of the equipment which in turn will be translated into higher costs for the end users. We therefore suggest that in taking the final decision on the out-of-band emissions requirements for this part of the duplex gap PTS should, as far as possible, take a decision on its future use. If, for example, PTS decides to follow the main channelling arrangement for MFCN in the 700 MHz band recommended by CEPT Report 053 and utilize this spectrum for SDL, then the requirement could be relaxed to meet the baseline level of 16 dBm per antenna in 5 MHz measurement bandwidth. Huawei would certainly welcome such a forward-looking approach which would allow avoiding the unnecessary restrictions with the associated costs for all stakeholders, including the end users.

Huawei will be pleased to provide more detailed comments to PTS on the options of possible usage of the guard band and duplex gap in the 700 MHz range at an appropriate time.