

(Draft) RSPG Opinion on Common Policy Objectives for WRC-15

Qualcomm Response

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Qualcomm highly appreciates the opportunity to provide its comments to the (Draft) RSPG Opinion on Common Policy Objectives for WRC-15.

The global and growing demand for mobile broadband services pushes the boundaries of networks capabilities and requires more harmonised spectrum to deliver everywhere these new services to smartphones, tablets and all new possible devices types. Mobile data traffic has doubled every year over the past few years. If this growth rate continues for ten years, we will see a 1000x increase. Qualcomm's vision to achieve this 1000x capacity is built upon three pillars, which are related to one another and must be pursued simultaneously: additional spectrum in low and high bands, denser networks and greater efficiency across the system. These three pillars are complementary to address data traffic growth in rural, suburban and urban environments.

Qualcomm believe that additional frequency bands are needed to meet the future demand for mobile broadband services by 2020. Thus, Qualcomm agrees with the Draft RSPG Opinion that the following frequency bands should be supported for IMT at WRC-15:

- 1427-1452 MHz
- 1452-1492 MHz
- 1492-1518 MHz
- 3400-3600 MHz
- 3600-3800 MHz

The **1452 -1492 MHz**, now harmonized in CEPT for Mobile Supplemental Downlink (SDL) through ECC DEC(13)03 and part of the 1200 MHz Radio Spectrum Policy Programme, represents an opportunity to enhance downlink capabilities of mobile broadband networks, tackle growing mobile broadband data traffic asymmetry, enable even faster downloads, improve number of users of wireless devices and provide a smoother user experience. Qualcomm supports its identification for IMT at WRC-15.

Additional candidate bands for IMT identification are **1427-1 452 MHz and 1492 – 1518 MHz** bands. They could be a future extension of 1452-1492 MHz and potentially creates a contiguous 90 MHz band for mobile SDL. They are globally allocated to Mobile on a co-primary basis. Furthermore, Qualcomm agrees with RSPG that Member States should support no regulatory additional constraints to mobile service for the protection of aeronautical telemetry in the band 1429 – 1518 MHz

Higher frequencies **3400 – 3600 MHz and 3600 – 3800 MHz** bands will be key in the deployment of small cells in the context of heterogeneous networks (HetNets) to enhance capacity requirements in high urban areas because of their favorable electromagnetic characteristics in interference management and should be supported for co-primary allocation to mobile services and IMT identification at WRC-15. In this context, Qualcomm believes that LSA (Licensed Shared Access) could enable the future availability and use of 3600 – 3800 MHz frequency range for mobile broadband on a shared basis with fixed satellite extending and enhancing also the ecosystem in the 3400-3600 MHz band.

The **700MHz** is also valuable for mobile communication due to its favorable propagation characteristics. Qualcomm agrees with RSPG that under Agenda Item 1.2, Member States should support 694 MHz as the lower edge for the allocation to the mobile service on a primary basis and identification for IMT in the 700 MHz band, while ensuring protection of the broadcasting service below 694 MHz.

Last but not least, Qualcomm agrees with RSPG that Member States should support a future Agenda item addressing the spectrum needs for **5G** with the focus above 6 GHz though Qualcomm believe that 5G will be a unified platform designed for all spectrum types, licensed and unlicensed, and bands not only above but also below 6GHz.