

Huawei Response to the RSPG consultation on the draft RSPG Opinion on the ITU-R World Radio Conference 2019



Huawei welcomes the opportunity to comment on this important consultation on the draft RSPG Opinion which will assist the European Commission and CEPT in defining and promoting the European objectives for WRC-19. We focus in our response in particular on WRC-19 Agenda Item 1.13 which is of vital importance for the success of 5G. In addition, we provide our views on the scope of the following WRC-23 relevant to 5G which will be decided under WRC-19 Agenda Item 10.

Agenda Item 1.13 – IMT in mmWave bands

Huawei points out that a successful outcome of WRC-19 on AI 1.13 is essential for achieving the European common policy objectives with regard to the leadership in the development and implementation of the mobile broadband technologies.

In this regard, we have the following specific comments:

- Huawei supports the RSPG recommendation for an EU position supporting the IMT identification in the band **24.25 - 27.5 GHz** on a global basis. We further emphasize that the regulatory provisions assigned to this identification should allow an effective global deployment of 5G in the band which would also be highly beneficial for the success of 5G in Europe. In particular, we propose that the European position at WRC-19 with regard to the unwanted emissions' limits from 5G into the EESS (passive) band 23.6-24.0 GHz should be based on reasonable protection requirements and should also account for the positions of other regions.
- Huawei further supports the RSPG recommendation for an EU position supporting the IMT identification of the **40.5-43.5 GHz** band on a global basis. Such an identification would be applicable to the European countries while the IMT identification of the wider frequency range 37-43.5 GHz at WRC-19 would provide global opportunities for the countries to choose the suitable parts of the range for national implementation. We believe that the 40.5-43.5 GHz band is highly important for satisfying the mid-term demand in Europe for 5G spectrum in the mmWaves. It can provide additional capacity for the implementation of ultra-high data rate 5G services which will be initially provided over the 26 GHz band. The EU technical harmonisation decision for the 40.5-43.5 GHz band should therefore follow the decision on the 24.25-27.5 GHz band.
- Huawei also supports the RSPG recommendation for an EU position supporting the IMT identification of the **66-71 GHz** band on a global basis. The band can significantly contribute to satisfying the 5G spectrum needs for a range of 5G applications. Authorisation related issues for this band will be subject to regional or national decisions following WRC-19.

Huawei further notes the RSPG view against any consideration of the **27.5-29.5 GHz** band under AI 1.13 in the case of other administrations propose this band to discuss for IMT identification under this agenda item. Huawei does not share this view since the 5G implementation in 28 GHz in a number of countries would not affect the global implementation of 5G in 26 GHz but would only contribute to the rapid development of the 5G mmWaves ecosystem.

Agenda Item 10 – Agenda Items for WRC-2023

Below we provide a number of frequency bands which we believe should be included in the agenda of WRC-2023 for possible IMT identification:

470-694/698 MHz

- Huawei supports the review of the UHF band (**470-694/698 MHz**) at WRC-23 under an agenda item which would allow a global co-primary IMT identification of the whole band. Such an identification would respond to the increasing spectrum requirements of 5G, particularly for the implementation of 5G services requiring wide coverage and good penetration, and decreasing importance of terrestrial broadcasting. We suggest that the European position at WRC-2023 would be based on a future review of the UHF band which would precede WRC-2023. The possible global identification of the UHF band for IMT at WRC-2023 would further enhance the emerging 600 MHz IMT eco-system and create technical, regulatory and economic conditions for the adoption of a European harmonisation measure for IMT in the UHF band around the year 2025.

3600-3800 MHz

- Huawei supports a new agenda item of WRC-2023 which would consider a co-primary mobile allocation and IMT identification of the **3600-3800 MHz** band in Region 1, based on the results of studies which would provide the conditions for the appropriate protection of the incumbent services. The 3600-3800 MHz band is a part of the 3400-3800 MHz band which is harmonised in the European Union for mobile broadband and is decided to be the primary 5G band. Beyond Region 1, the mobile service in 3600-3800 MHz has a primary status in both Region 2 and Region 3 and this fact brings the opportunity for the 3600-3800 MHz band to be considered for IMT identification on a more global basis at WRC-2023. We believe a formal recognition of IMT in the band for the whole of Region 1 would support the establishment of 3400-3800 MHz as the core 5G band for the Region, in alignment with the decisions already made in the European Union. It will help drive economies of scale for the benefit of the European citizens.

3800-4200 MHz

- Huawei supports a new agenda item of WRC-2023 which would consider the identification of the **3800-4200 MHz** band for IMT, based on the results of studies which would provide the conditions for the appropriate protection of the incumbent services. We consider the band 3800-4200 MHz to be a key element in the future development of 5G, and for the support of wide coverage enhanced Mobile Broadband, massive machine connectivity and critical and real time communications for high reliability or extremely low latency applications. We believe that the availability of 400 MHz of additional spectrum adjacent to the band 3400-3800 MHz will become an important element for the establishment of the highest performing 5G networks globally, both in terms of the development of a vibrant device eco-system, and in terms of facilitating the evolution of mobile networks from existing 4G technologies to new air interfaces, with the possibility of making this available to European citizens cost effectively.

6-24 GHz

- Huawei supports a new agenda item of WRC-2023 which would allow a global identification of parts of the **6-24 GHz** frequency range for IMT. ITU-R studies, particularly in the most recent study cycles prior to WRC-15 and WRC-19, have shown that IMT spectrum requirements will not only be increasing over time but will also require sufficient amounts of spectrum in different frequency ranges, from bands below 1 GHz to the mmWave bands. These requirements necessitate the consideration of the middle-range frequency bands, in particular the spectrum between 6-24 GHz, for the successful development of 5G in the coming decade. Though the 6-24 GHz is heavily used by the incumbent services, Huawei believes that there is a good potential to identify sufficient amount of new spectrum for IMT within this frequency range at WRC-23 based on the results of the future studies.