Sky response

Public consultation on the Draft RSPG opinion on ITU-R World radiocommunication conference 2023

This is a response to the following public consultation

Link: https://rspg-spectrum.eu/wp-content/uploads/2022/06/RSPG22-014final-Draft_RSPG_Opinion_WRC23.pdf

Via e-mail to the RSPG Secretariat (CNECT-RSPG@ec.europa.eu)

Sky Group is a leading media and connectivity provider in the UK, Ireland, and Italy, serving more than 23 million customers and employing 35,000 people. We also provide television broadcast services in Germany, and engage software and hardware engineers in Denmark, Poland, and Portugal to support our Customer Premises Equipment (CPE) and television design and manufacturing operations.

We are grateful for the opportunity to express our views on the draft opinion by the Radio Spectrum Policy Group (RSPG). We set out below our comments on two specific sections of the draft opinion, namely section 4.1 (IMT mid-band identifications) and 4.3 (WRC-23 Agenda Item 1.5 (UHF review)).

Sky do not support the IMT mid-band identification

In relation to section 4.1 (IMT mid-band identifications) our view is that a common policy approach the EU Member States should not support identification for IMT of the frequency band 6425 - 7125 MHz. We have set out our reasons below:

An increasing range of services rely on access to high quality Wi-Fi

An integral part of Sky's service package consists of high-quality Wi-Fi services that support an ever-increasing range of services, including high-definition video (such as 4K and 8K) and home teleconferencing[1] There are already Wi-Fi technologies on the market that can make use of the upper

[1] This was already observed by Ofcom in para. 3.17 of its 2020 statement "Improving spectrum access for Wi-Fi". Available at https://www.ofcom.org.uk/__data/assets/pdf_file/0036/198927/6ghz-statement.pdf

6 GHz bands, namely WiFi6[2] and WiFi6E[3], with the next generation Wi-Fi (WiFi7) capable of transmitting on any of the 2.4 GHz, 5 GHz, or 6 GHz bands during the same association, already in the early phases of market deployment[4]. Sky's customers are increasingly relying on these technologies in their daily lives and up to ten times higher need for bandwidth has been projected, due to increased use of the services in which we specialise[5].

In the near future, we expect that the development of the video-on-demand market, will continue to increase the connectivity needs of our customers – a development we are supporting with innovative solutions such as our newly launched Sky Glass television (available for the German, Italian and UK markets), and through our already popular Sky Q platform. With more households containing not just one but several connected devices each requiring high-throughput, low-latency connectivity, we predict a need to provide access to devices designed for unlicensed spectrum in the 6425-7125 MHz range.

Ever increasing number of devices tuned for the upper 6 GHz range

With more households containing not just one, but several connected devices each requiring high-throughput, low-latency connectivity, we predict a future need to provide access to devices designed for unlicensed spectrum in the 6425-7125 MHz range. The fact that these technologies are already developed makes us even more keen on not foreclosing their accessibility to our customer base.

In addition, more of our customers are opting for various internet-of-things solutions in their households. For example, devices such as baby-monitors and security systems are popular with residential customers, and rely on unlicensed connectivity.[6] In addition, since 2019 we have seen UWB (Ultra-Wideband) technologies that already make use of these bands becoming more frequently integrated in smartphones and we expect to see more customers relying on UWB features including for positioning, location, or digital car keys. Supporting a premature IMT identification of the upper 6 GHz bands will make the bands inaccessible to other technologies. Mobile networks are not currently designed to share spectrum with incumbent or alternative new users in the same bands and rely on licensed access. If an unlicensed regime is not working as planned, **it is possible to introduce a licensed regime afterwards – however, the reverse is not true**. It is extremely hard, once spectrum has been licensed to mobile operators, to then enable unlicensed use in the same band.

Further, the technical limitations of mobile networks create a risk of introducing coexistence issues with satellite services already operating in these bands, as well as with UWB technologies and existing WLAN (Wireless Local Area Network) technologies that can and do operate in these bands. In contrast, Wi-Fi technologies are designed to share spectrum with other services. We therefore advocate that, even if the EU member states are not prepared to designate the upper 6 GHz bands for unlicensed use at the present time, any alternative designation must be postponed (in line with RSPG's option 2) for this agenda point.

There is clear precedent for the option not to have the bands identified with any particular technologies at the global level while still making regional adaptations, see for example the EU's

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[2] Wi-Fi Alliance, 16 September 2019, Wi-Fi 6 Certification. https://www.wi-fi.org/news-events/newsroom/wi-fi-certified-6-delivers-new-wi-fi-era

[3] Wi-Fi Alliance, 7 January 2021, Wi-Fi 6E certification program, https://www.wi-fi.org/news-events/newsroom/wi-fi-alliance-delivers-wi-fi-6e-certification-program

[4] See reports of first-generation IEEE 802.11be chip launches from major vendors at Anandtech, notably from Broadcom (April 2022), Qualcomm and MediaTek (May 2022): https://www.anandtech.com/tag/wi-fi-7

[5] UK Ofcom, July 2020, para 3.24 at https://www.ofcom.org.uk/__data/assets/pdf_file/0036/198927/6ghz-statement.pdf

previous position on the 3.4-3.8 GHz bands. As such, we see no benefit in RSPG's option 1) for this agenda point.

UHF Review

In relation to agenda point 4.3 (UHF Review), we agree with the RSPG's recommendation to propose an EU position providing priority to broadcasting and PMSE usage until at least the end of 2030.