# ETNO response to RSPG Consultation on the Draft RSPG Opinion on ITU-R World Radiocommunication Conference 2023

## Executive Summary

ETNO appreciates the opportunity to provide comments to the consultation on the Draft RSPG Opinion on ITU-R World Radiocommunication Conference 2023 (WRC-23).

With the WRC-23, ETNO would like to stress the key role of the Conference decisions for the mobile industry. The outcome of WRC-23 will be paramount to achieve a predictable supply of new harmonized spectrum to enable the growth of the mobile broadband, which is an important driver of economic growth in all European Member States. In particular, WRC-23 decisions will be critical for the future performance and deployment of IMT technologies and services.

Sufficient spectrum availability in low, mid, and high spectrum bands with feasible conditions are crucial for ensuring investments needed to provide high quality mobile services for society also in future. European society is dependent on broadband connectivity and demand is continuously increasing. Mobile operators are committed to deliver the ambitious EU digital decade targets 2030, but mobile market has to be sustainable to ensure investments in increased coverage and capacity. European policy makers have had a strong focus on ensuring competition and low customer prices, which has also led to the situation that European mobile market has lower revenues, and slower 5G take-off compared to the North American and East Asian peers[1]. We request regulators and politicians to ensure that the WRC-23 decisions support the mobile market to deliver the EU targets and customer demands.

[1] The State of Digital Communications 2022

## Main Items

The following are the ETNO positions on the main areas of interest of ETNO operators which are agenda items 1.2, 1.3 and 1.5 that will be discussed at WRC-23.

### *Agenda Item 1.2 (IMT mid-band identifications)*

**The current draft recommendation for AI 1.2 does not clearly indicate the position of the RSPG as it describes the two opposite options for the band 6425-7125 MHz without prioritizing one of those. Nevertheless, ETNO expects that RSPG will recommend an IMT identification.**

**ETNO supports RSPG Option 1 on the band 6 425 - 7 125 MHz - "IMT identification" and proposes to delete Option 2.** Offering good propagation characteristics, the 6425-7125 MHz band is of great interest for continued mobile broadband expansion, as it would support meeting the future demands for mid-band spectrum for IMT in Europe.

ETNO provides comments and views to this Agenda Item below, and more details on 6 GHz band can be found in the *Multi-Company response to the Radio Spectrum Policy Group public consultation on the Draft "Opinion on the ITU-R World Radiocommunication Conference 2023" – Focusing on the IMT identification of 6425-7125 MHz under Agenda Item 1.2*.

According to a recent study from GSMA prepared by Coleago[2] there is a large demand for mid-band spectrum for 5G in future, in total about 2 GHz by 2030. This spectrum demand study is complemented with a GSMAi study on socio-economic benefits of mid-band 5G services[3]. These reports and further information on importance and feasibility of 6 GHz band for wide-area mobile networks are available at www.6ghzopportunity.com.

In Europe the band 6425-7125 MHz is the only realistic opportunity for making available new mid-band spectrum allowing for sufficiently wide contiguous bandwidth per operator. This band will be needed especially in urban areas and to enable provision of more advanced 5G services to a larger part of the population in areas which are not feasible to be covered with mmWave bands.

An IMT identification for this band enables equipment ecosystem development, and thus creates a possibility for countries to allow mobile IMT use when and where feasible. It is foreseen that sharing of macro cellular networks with existing services is feasible, noting that it is possible to set conditions in licenses to protect existing services as needed.

ETNO agrees that European policy strategy should always be based on consideration related to demand, as also noted in section 4.1.1. However, we find it difficult to understand the note on possible sharing options between IMT and WAS/RLAN in the band, noting that typical use cases for these are very different resulting in incompatibility - wide-area connectivity relying on licensed spectrum vs local-area connectivity relying on license-exempt spectrum use.

ETNO agrees with RSPG that a future European policy strategy on 6 425 - 7 125 MHz should be based on the best spectrum use for Europe. ETNO is of the view that licensed use of the 6425-7125 MHz band by public mobile network operators will achieve the best outcome for Europe's digital society. It is the most beneficial scenario to ensure that mobile networks can evolve their capability and contribute to Europe's digital transformation. The upper 6 GHz is clearly needed to satisfy the increasing traffic demand from users and to secure the future expansion and quality of 5G services.

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[2] https://www.gsma.com/spectrum/resources/5g-mid-band-spectrum-needs-vision-2030/

[3] https://www.gsma.com/spectrum/resources/mid-band-5g-spectrum-benefits/

In 2021 CEPT and EU have almost doubled[4] the amount of license-exempt mid-band spectrum by harmonizing the lower part of 6 GHz band (5945-6425 MHz) for WAS/RLAN low power use by WiFi and other technologies relying on license-exempt spectrum.

ETNO is of the view that the spectrum demand for WAS/RLAN can be satisfied by already harmonized bands, and as shown by a GSMAi study focusing on 6 GHz band considering licensed and unlicensed options[5] there will be neither an operational nor an economic benefit of additional mid-band spectrum for WAS/RLAN.

Furthermore, use cases for license-exempt low power, and licensed higher power deployment are very different. License-exempt low power use is mainly about supplementing broadband access by distributing it wirelessly within homes and offices, whereas licensed higher power deployments provide mobile broadband connectivity directly to mobile devices both outdoors and indoors, as well as through fixed-wireless access. To deliver towards the EU Digital Decade targets 2030, in particular for mobile outdoor broadband connectivity will play an essential role and can only be secured by an IMT identification of upper 6 GHz.

ETNO supports an IMT identification for 6425-7125 MHz at WRC-23. In addition, ETNO is of the view that EU Member States should not unduly block countries in Region 2 or other parts of Region 1 from having an IMT identification for the bands which are not relevant for IMT in Europe.

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4 https://digital-strategy.ec.europa.eu/en/news/commission-makes-more-spectrum-available-better-and-faster-wi-fi

5 https://data.gsmaintelligence.com/api-web/v2/research-file-download?id=72941571&file=160622-The-socioeconomic-benefits-of-the-6-GHz-band.pdf

*Agenda Item 1.3 (MS 3 600-3 800 MHz)*

ETNO supports the **RSPG recommendation on the primary mobile allocation of the band 3600-3800 MHz,** provided that the current harmonized conditions for use by IMT would not be limited.

The 3600-3800 MHz is of great importance for the provision of mobile broadband services being the core band for 5G. According to both an EC and ECC Decision the band is currently harmonised and in use for mobile/IMT in Europe and an upgrade of the allocation from secondary to primary would help to confirm and protect that use. Primary allocation may ease the cross-border coordination with countries outside CEPT and help to agree reasonable conditions.

*Agenda Item 1.5 (UHF Review)*

**ETNO thinks that the recommendation does not clearly indicate the position of the RSPG.** This agenda item deals with a review on the spectrum use and spectrum needs of existing services in the frequency band 470-960 MHz in Region 1 and with possible regulatory actions in the frequency band 470-694 MHz band, based on the review. This was discussed already in WRC-15 when it was postponed, not to WRC-19 agenda, but to WRC-23 agenda. RSPG does not clearly explain why a postponement of this agenda item to WRC-27 or 31 would be beneficial, noting that WRC-23 will not decide on the future usage of the band or a DTT switch off, i.e. by removing primary broadcast allocation.

EU decision (EU) 2017/899 protects broadcasting until 2030, but also requires efficient spectrum use, and following changes in consumer behavior, foster growth and innovation (Article 7). These are not mentioned in section 4.3.2. Therefore, we would like to suggest amending the wording as suggested below:

> "Under this decision with a view to ensuring efficient use of spectrum pursuant to the applicable Union law, the Commission will report to the Council and the European Parliament on developments in the use of this band considering the social, economic, cultural and international aspects as well as further technological developments changes in consumer behaviour and the requirements in connectivity to foster growth and innovation in the Union. "

Decision (Article 4) also allows flexibility for Member States regarding other use as long as the use is compatible with the national broadcasting needs in the relevant Member State and does not cause harmful interference to, or claim protection from, the terrestrial provision of broadcasting services in a neighbouring Member State. Also, RSPG has, in 2015, recommended flexibility for WBB downlink as noted in point 10 in section 4.3.1.

A timely decision of WRC-23 in favor of a co-primary Mobile Allocation of 470-694 MHz would create regulatory clarity and provides full flexibility for the consequential European decision on an efficient future use of this frequency range. It would also support technology and regulatory developments that could realize the flexibility defined in (EU) 2017/899, as well as taking into account the European situation with different demands and timelines for broadcasting in different countries. Such technology and regulatory developments take time and should be started to enable efficient use of this spectrum after DTT which is not socio-economically efficient or needed solution throughout Europe.

**ETNO supports the primary allocation of the band 470-694 MHz to the Mobile Service at WRC-23.** In the future, additional low-band spectrum is essential to be able to increase the mobile broadband capacity and performance, especially in areas where higher frequencies have less effective propagation characteristics, e.g.in rural areas, transport paths, as well as inside buildings. It enables the offering of more equal mobile service in sparsely populated areas compared to sub-urban and urban areas and thus, supporting targets for digital inclusion and equal digital opportunities, including healthcare, education but also media.

Additional low-band spectrum supports meeting the growing demand for higher broadband speed in those areas in an economically and environmentally sustainable way.

In many European countries other broadcasting platforms (e.g. cable, IPTV, satellite) are already more popular than DTT. In addition, there is ongoing change in media consumption. People use increasingly more on-demand video content and streaming services with mobile equipment and with "TV screen" instead of traditional linear TV. This increases data in broadband, including mobile broadband.

Action at WRC-23 is a necessary step to keep open different options of operational use of 470-694 MHz band after 2030 in Europe. This is a prerequisite to allow the EU to decide on an appropriate action plan by 2025 or earlier in the context of the EC "Report to the European Parliament and to the Council on developments in the use of the sub-700 MHz frequency band, with a view to ensure efficient use of spectrum" as required by Article 7 of Decision EU 2017/899 and envisaged by Recital 12 of this decision. Adding a primary mobile allocation in the band 470-694 MHz at WRC-23 would simply offer legal flexibility in due time without causing harm to existing users or prejudging further decisions on the future use of the band.

### *Studies in relation with RR Article 21*

**ETNO is of the view that any possible updates of Article 21 should not lead to unnecessary restrictions for IMT systems in any of the bands which are being used or planned for IMT.**

The work should initially focus on the immediate issue of how notifying stations using AAS Active Antenna Systems in the 26 GHz band could be solved without any change in the Radio Regulations. In EU 26 GHz band is identified as one of the 5G pioneer bands, and it is awarded in some member states. Article 21.5 should not limit the usage of mobile IMT more than what was agreed during WRC-19 when detailed studies on the protection of satellite services were conducted and formed the basis for the decision.

*Agenda Item 10*

**ETNO supports the inclusion of an agenda item for the consideration of additional IMT spectrum for WRC-27.**

ETNO supports long-term development of IMT technologies and services to meet the society demands and to foster innovation and efficiency. New generations of IMT technology providing additional and more efficient solutions become available every ~10 years. The next one, IMT-2030, is expected in around 2030.

So far, the capacity demand has been continuously growing in mobile networks since their introductions. This is expected to continue as people and societies are increasingly relying on mobile and broadband connectivity. Even if mobile operators update their networks and refarm new technologies in existing bands, as they have done also so far, it may be expected that there will be demand for new spectrum also in future.

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ETNO (European Telecommunications Network Operators' Association) represents Europe's telecommunications network operators and is the principal policy group for European e-communications network operators. ETNO's primary purpose is to promote a positive policy environment allowing the EU telecommunications sector to deliver best quality services to consumers and businesses.

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