

ETNO Reply to

(DRAFT) RSPG Opinion on the ITU-R World Radiocommunication Conference 2019

ETNO welcomes the opportunity to express its views and comments on the “(DRAFT) RSPG Opinion on the ITU-R World Radiocommunication Conference 2019”.

As the outcome of WRC-19 will be paramount to achieve a steady and predictable supply of new harmonized spectrum to enable the growth of the Digital Economy, in particular, 5G performance and deployment, ETNO has already sent some preliminary thoughts on some agenda items that are of utmost importance for the development on the telecommunications infrastructure and services.

ETNO would like to propose some suggestions regarding agenda items 1.13 and 10 of the upcoming WRC-19 conference.

Paragraph: 4.9 WRC-19 Agenda Item 1.13 (IMT2020/5G)

ETNO believes that for the development of mobile electronic communication services, a timely and predictable supply of spectrum between 24 GHz and 86 GHz for 5G is of key importance. Therefore, it would have been expected that the RSPG opinion would provide recommendations for all the eleven bands ranging from 24.25 GHz to 86 GHz, where studies are being conducted. And all recommendations should be depicted at an EU position.

ETNO supports regulatory measures to enable 5G at the pioneer 26 GHz band (24.25-27.5 GHz) at WRC-19.

ETNO supports the CEPT process to harmonise the 24.25-27.5 GHz band for the early introduction of 5G technologies in Europe before WRC-19 through the adoption of a harmonisation decision and to promote it for worldwide harmonisation by an IMT identification.

The ongoing sharing and compatibility studies may lead to reference guard-bands to avoid interference with other services like downlinks for earth observation data and EESS/SRS earth stations. However, stringent protection requirements could heavily hamper the ability of the band to produce the extreme throughputs expected from 5G by reducing the available bandwidth with wide guard bands. ETNO strongly believes that overprotection of services would detriment 5G capabilities and therefore it is extremely important to be avoided.

ETNO supports regulatory measures to enable 5G at 40 GHz (37-43.5 GHz). The 40 GHz (37 – 43.5 GHz) band is also a key band at WRC-19 with a potential large bandwidth to allow the highest throughput services for 5G in the mid-term.

Parts of the band are already well supported, e.g. USA (37-40 GHz), Europe (40.5-43.5 GHz), enabling economies of scale and thus fostering the early ecosystem development.

ETNO encourages the identification of other bands for IMT above 40 GHz (45.5-50.2 GHz, 50.4-52.6 GHz, 66-76 GHz and 81-86 GHz). Bands above 40 GHz will be important for further capacity for 5G in the long run, to enable the continuous growth of the Digital Economy. Especially bands in 45 GHz (45.5 – 52.6 GHz) and 70 GHz (particularly 66 – 71 GHz) are interesting due to their available bandwidth that will be needed for mobile Gigabit services in future.

Furthermore, regarding the 28 GHz band, **ETNO supports additional consideration of possible regulatory measures to enable 5G in the 28 GHz band in Europe.**

The first mmWave 5G ecosystem in the world will be provided in the 28 GHz (e.g. US, Korea and Japan). Therefore, ETNO encourages administrations to reconsider this band for 5G in addition to the 26 GHz band, even if it is not on the WRC-19 agenda and it is not currently supported by Europe for 5G. There is enormous potential in having mobile services in both the 26 GHz and 28 GHz bands in the long term.

It would allow a higher degree of flexibility for those European administrations unable to open enough spectrum in the 26 GHz band, due to the existing applications, creating a bigger ecosystem covering the entire 24.25 – 29.5 GHz range, thus speeding up the introduction of mmWave 5G in the whole Europe. Furthermore, it should be noted that CEPT has established separation of FS and FSS which facilitates the reconsideration of the band for IMT.

Paragraph: 4.12 Agenda item 10 (New Agenda items for WRC-23)

ETNO agrees with RSPG support keeping the preliminary agenda item on the UHF band for WRC-23 (as contained in Res. 810 (WRC-19)) to enable the discussion on a mobile allocation in the band 470-694 MHz or part thereof in Region 1.

Further to the above, as the identification and release of a new spectrum band is a long and complex technical and regulatory process, ETNO would like to encourage stakeholders to start early with the identification of potential additional new IMT bands. This exercise should take into account the experiences from initial 5G deployments and trials. In this frame **ETNO supports reconsideration of a possible IMT identification in the 3.8 GHz – 24 GHz range at the WRC-23.**

ETNO supports further work in the frequency range 3.8 – 24 GHz currently not covered by any 5G discussions. In particular, ETNO supports initiatives to consider mobile use especially in the band 3.8 – 4.2 GHz to extend the resources from the band below and thus to create up to 800 MHz of contiguous spectrum for high data rate services. In addition, ETNO supports studies in the 6 GHz range.

Other agenda items

Regarding other agenda items ETNO would like to note following.

Paragraph: 4.2 Agenda Item 1.5 (ESIM). The bands considered under this agenda item, 17.7-19.7 GHz and 27.5-29.5 GHz, are allocated to fixed and mobile services and their protection needs to be ensured. ESIMs are in motion, may cross international borders, and be present at any geographical location within FS/MS network. Thus, sharing with ESIMs, particularly land-based ESIMs, is expected to be very complex.

Paragraph: 4.3 Agenda Item 1.6 (Non-GSO FSS Q/V band). The bands considered under this agenda item, are also considered under agenda item 1.13. Additionally, there is extensive use of fixed links in some of the bands. Any actions for this agenda item should ensure protection of fixed service, and not lead to restrictions on possible use of IMT.

Paragraph: 4.8 Agenda Item 1.12 (ITS). Mobile networks and IMT technologies are able to efficiently provide ITS services within mobile/IMT bands, as well as in spectrum allocated for safety related applications of ITS (e.g. 5850-5925 MHz). ETNO supports “No change” position for this Agenda Item.

Paragraph: 4.10 Agenda Item 1.14 (HAPS). Some bands considered under this agenda item, are also considered under agenda item 1.13. Additionally, there is extensive use of fixed links in some of the bands. Any actions for this agenda item should ensure adequate protection to the fixed service, and not lead to restrictions on a possible use of IMT.

Paragraph: 4.11 Agenda Item 1.16 (and 9.1.5) – RLAN. In general ETNO supports use of RLAN /WiFi in the bands between 5150-5925 MHz in accordance with the CEPT results.