



UK preparations for the World Radiocommunication Conference 2019 (WRC-19)

BT's response to the consultation published on 7 June 2018

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Executive Summary

1. BT¹ considers that UK preparations for the ITU WRC-19, led by Ofcom, have been very effective in arriving at UK positions on the various agenda items that are well balanced and reflect the best interests of the UK as a whole. On agenda items of particular relevance or interest to BT we are satisfied with the positions that Ofcom has arrived at, given the need to achieve international consensus.
2. The most important conference agenda items from BT's standpoint are those that address wireless broadband connectivity, namely agenda item 1.13 (IMT in bands above 24GHz) and agenda item 1.16 (5GHz bands for Wi-Fi and compatible technologies). These are important in the context of future 5G and converged networks. On these items BT accepts and supports the line that Ofcom proposes to take in preparation of common European proposals to be pursued at the conference.
3. Some other agenda items are of less immediate or direct interest to BT, but we are nevertheless interested in these where they may affect our priority agenda items or may have future relevance for us, for example the agenda item 1.14 on High Altitude Platforms.
4. BT is keen to play a continuing role in the UK preparatory process for the WRC-19 and will provide updated views as may be required as the international preparations further evolve.

¹ BT including its subsidiary mobile operator EE Limited.

1 Introduction

BT welcomes the opportunity to comment on the UK preparations for the ITU WRC-19 conference² and the positions that Ofcom proposes to take on the various agenda items. In general we are content with the process and the lines that Ofcom proposes to take on the various items. We have been involved in the relevant stakeholder briefing meetings and have attended some of the international meetings where the agenda items of most interest to us have been discussed.

Our interest in the WRC-19 mainly concerns the agenda items related to wireless broadband, but some other agenda items are of interest, mostly in view of their potential impact on our priority agenda items, namely 1.13 (IMT above 24GHz) and 1.16 (5GHz band). We have therefore only considered in detail a subset of the consultation questions, for which we provide our response below.

2 Our response to consultation questions

Question 2 - Agenda Item 1.13 - IMT in bands above 24 GHz

BT agrees with Ofcom's position to prioritise the following bands and we would support their identification for IMT on a global basis:

- 24.25-27.5 GHz
- 40.5-43.5 GHz (as part of a wider global 37-43.5 GHz tuning range)
- 66-71 GHz

BT would also welcome a mobile allocation and identification of the 32GHz band for IMT, but we accept that there is presently insufficient international support for this given the result of compatibility studies and the apparent priority for other services by some other administrations. If support were to emerge we encourage Ofcom to pursue this positively.

We have contributed to the work of the mobile industry in GSMA and NGMN (Next Generation Mobile Networks) to prepare for the WRC agenda item 1.13 and we are supportive of the positions advocated by those bodies, including the GSMA response to this consultation and the spectrum white paper issued by NGMN³.

Our views on the above bands are provided in more detail below.

26GHz

This band is identified in Europe as a 'pioneer band' for 5G and is being standardised for 5G in 3GPP. We agree with Ofcom that this should be the highest priority mmWave band from a UK perspective. We support its identification for IMT in the ITU Radio Regulations. We are aware of the discussions within CEPT on the technical conditions that may be imposed on the 26GHz band and must emphasize the importance to ensure these are not over restrictive and do not stifle the use of the band in future for 5G. We have provided our views on the importance and potential use of the 26GHz band for 5G in response to Ofcom's a call for inputs on the 26GHz band that closed in

² https://www.ofcom.org.uk/_data/assets/pdf_file/0017/114524/consultation-wrc-19.pdf

³ 5G Spectrum Requirements White Paper v2.0, NGMN, August 2018.
https://www.ngmn.org/fileadmin/ngmn/content/downloads/Technical/2018/180831_NGMN_5G_SPECTRUM_WHITE_PAPER_2018_V2.pdf

September 2017⁴. We look forward to Ofcom's consultation on release of the 26GHz band that was mentioned by Ofcom as a next step in that call for inputs.

40.5-43.5 GHz

This spectrum band has already been awarded in the UK. We would support the international identification for IMT within the ITU Radio Regulations as this would potentially be a positive action in terms of promoting further global harmonisation and economies of scale for equipment in that band.

66-71 GHz

We support the global identification of this band for IMT.

Question 3 - Agenda Item 1.14 - HAPS (High Altitude Platforms)

We agree with Ofcom's view that the priority for the 26GHz band is an identification for IMT to support global harmonisation of the band for 5G and we would not want the consideration of that band for HAPS in ITU-R Region 2 (Americas) to undermine that objective.

We do not have views on whether the existing bands for HAPS on a global basis are sufficient.

Question 4 - Agenda Item 1.16 - RLANs in 5 GHz bands

BT regards the 5GHz band as important for Wi-Fi and potentially other licence-exempt wireless technologies. The band is extensively used by BT and its customers for Wi-Fi today, for example in the hubs connected to fixed broadband in homes and businesses, public Wi-Fi hot spots and the numerous consumer devices that connect to these. Increasingly the 5GHz licence-exempt bands will be important in the context of fixed and mobile network convergence. We therefore regard the conference agenda Item 1.16 to be of high importance to the UK.

We agree with Ofcom's assessment of the different issues in relation to the various 5GHz sub-bands, based on the results of the extensive technical studies that have been undertaken and discussed in international meetings. We agree that on the basis of these studies and information to date it is appropriate for Ofcom to support the CEPT position of no change at this stage. However, we would welcome further studies with a view to possible removal of the indoor only restriction on RLANs in the 5150-5250MHz band.

As regards consideration of new bands above 5925 MHz for Wi-Fi, we are supportive of studies but note that any new licence-exempt uses should be on a technology neutral basis.

Question 5 - Issue 9.1.5 - ITU-R Recs referred to for 5 GHz bands

We agree with Ofcom's concern in relation to imposing additional constraints on Wi-Fi and similar access technologies that employ dynamic frequency selection and therefore do not support the inclusion of reference to the updated ITU-R Recommendation M.1638-1 in footnotes 5.447A and 5.450A.

Question 6 - Issue 9.1.8 - Machine-type communications

We agree with Ofcom's position of 'No Change' to the Radio Regulations for this agenda item, and believe that development of an ITU-R Report or ITU-R Recommendation would be sufficient (to be developed by the responsible ITU-R Study Group outside the WRC process).

⁴ https://www.ofcom.org.uk/_data/assets/pdf_file/0025/106792/BT-plc-and-EE-Ltd.pdf

Operators should be able to provide MTC (machine-type communications) / IoT services within any mobile band. It is important that there is a supportive regulatory environment that enables the use of mobile/IMT bands for such services, without unnecessary constraints.

Question 20 - Agenda Item 1.11 - Railway track-to-train communications

BT agrees with Ofcom's view that there should be 'No Change' to the Radio Regulations for this agenda item. We do not believe that specific identification in the Radio Regulations for such applications of the Mobile service is necessary or desirable. Development of an ITU-R Report or ITU-R Recommendation would be sufficient (to be developed by the responsible ITU-R Study Group outside the WRC process).

Question 21 - Agenda Item 1.12 - ITS (Intelligent Transport Systems)

BT agrees with Ofcom's view that there should be 'No Change' to the Radio Regulations for this agenda item, since development of an ITU-R Report or ITU-R Recommendation would suffice.

Mobile operators should be able to provide commercial ITS services within mobile bands, as well as safety-related ITS applications in spectrum that has been set-aside for ITS (e.g. 5850-5925 MHz in many countries).

Question 32 - Agenda Item 10 - Agenda items for WRC-23

We support the agenda item 2.5 that is contained in the preliminary agenda for WRC-23 that was agreed at WRC-15, namely "*to review the spectrum use and spectrum needs of existing services in the frequency band 470-960 MHz in Region 1 and consider possible regulatory actions in the frequency band 470-694 MHz in Region 1 on the basis of the review in accordance with Resolution 235*".

We also in principle support consideration of other frequency bands for future identification for mobile/IMT under WRC-19 Agenda Item 10. We are working with the wider mobile industry to identify possible specific frequency bands/ranges for further study.

3 Further engagement in the WRC-19 preparations

BT is keen to engage with Ofcom and other interested stakeholders in the run up to the WRC-19 to provide any updated views, as may be required depending on how international discussions develop. Meanwhile we appreciate Ofcom's ongoing efforts pursue the UK positions and its leadership of some of the key items within the international preparatory work.