



Response to RSPG public consultation on:

**Strategic spectrum roadmap towards 5G for  
Europe – 2<sup>nd</sup> draft RSPG Opinion on 5G networks**

*(Issued by RSPG on 23 November 2017)*

**7 January 2018**

## **Introduction**

BT welcomes the RSPG's work on a strategic spectrum roadmap towards 5G for Europe and the opportunity to comment on the draft RSPG 2<sup>nd</sup> Opinion on 5G networks<sup>1</sup>.

The timely availability of suitable spectrum and a supportive regulatory environment are clearly important prerequisites for the operator investments in 5G networks needed to bring the benefits of 5G to EU citizens and consumers. We therefore support the publication of this 2<sup>nd</sup> RSPG Opinion and the important messages that it conveys in relation to spectrum for 5G.

BT has been at the forefront of national and international efforts to develop 5G, participating in standardisation efforts in 3GPP and in other industry bodies, such as the Next Generation Mobile Networks Alliance (NGMN) which has recently issued its own paper on 5G licensing<sup>2</sup> that addresses some of the same issues as the draft RSPG 2<sup>nd</sup> Opinion.

Whilst we confirm our general support for the draft 2<sup>nd</sup> opinion, we offer below a few comments on some details which we invite the RSPG to consider when it finalizes the text.

## **Comments on the draft RSPG numbered Opinions**

We have comments and/or some suggested edits on the draft Opinions 1, 7, 8 and 9 as set out below.

### **Opinion 1 – flexibility in spectrum authorisation**

When considering the widest range of spectrum bands, we agree that each of the mentioned options for authorisation could be relevant. However, we would like to emphasize that national licences will enable operators to confidently plan investment in deployment of networks at scale and, when combined with tradability of spectrum (and ability to lease), can achieve optimal and efficient use of spectrum via the market mechanisms. In contrast, the general authorisation approach is likely to be suitable only where there is low risk of interference arising, such as low power and high frequencies (i.e. 66-71GHz), as addressed on the Opinion 10. We therefore suggest the following edits:

1. **The RSPG is of the opinion** that Member States will need flexibility in the way they authorise access to spectrum to support 5G network investments, for example: appropriate geographical areas (e.g. national, regional, city or hyper-local, e.g. for use in a factory), individual licencing or, where harmful interference can be avoided, under a general authorisation framework.

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<sup>1</sup> [https://circabc.europa.eu/d/a/workspace/SpacesStore/fdf96fcf-16c5-4492-babd-a92eabecdef4/RSPG17-034final\\_2nd\\_draft\\_opinion\\_on\\_5G.pdf](https://circabc.europa.eu/d/a/workspace/SpacesStore/fdf96fcf-16c5-4492-babd-a92eabecdef4/RSPG17-034final_2nd_draft_opinion_on_5G.pdf)

<sup>2</sup> NGMN White Paper on Spectrum licensing and other regulatory issues for 5G, November 2017. [https://www.ngmn.org/fileadmin/ngmn/content/downloads/Technical/2017/171130\\_NGMN\\_5G\\_Spectrum\\_White\\_Paper\\_2017\\_v1\\_0a.pdf](https://www.ngmn.org/fileadmin/ngmn/content/downloads/Technical/2017/171130_NGMN_5G_Spectrum_White_Paper_2017_v1_0a.pdf)

### **Opinion 7 – release of spectrum for 5G via trading/leasing**

We agree that spectrum trading (and leasing) can play an important role in securing the optimal and efficient use of spectrum and are supportive of this both in terms of making available spectrum for 5G where there is existing alternative use as well as ensuring that once assigned for 5G the optimal distribution of spectrum can be achieved via market mechanisms.

### **Opinion 8 – 3.6GHz band defragmentation**

We welcome the recognition of the need for appropriate measures to defragment the 3.6GHz spectrum. Within the UK the 3.4 – 3.8GHz fragmentation arises due to some existing mobile spectrum assignments and other existing uses that need to be cleared. The piecemeal release of spectrum for 5G across the 3.4-3.6 GHz and 3.6 – 3.8 GHz bands is an obstacle to provision of timely access to wide spectrum blocks needed to support the widest 5G channels by national operators.

### **Opinion 9 – 26 GHz pioneer band**

In the first bullet we welcome the focus on individual licence regimes but note that the possibility of a general authorisation regime is also then mentioned. We are not sure on what basis this is recommended as depending on power levels and the nature of such deployments there could be interference issues not just with the EESS/SRS but also between 5G systems, as well as the fact that licence-exempt use is often on a European wide basis. This would presumably need further study. We would therefore suggest the following minor edit to the first bullet of the Opinion 9:

- the focus of 5G authorisations in the 26 GHz band should be on an individual licence regime. However, the possibility of a general authorisation regime under sharing conditions that protect the other users of spectrum in this band (e.g. EESS/SRS) is not excluded in the future.

## **Comments on the Annex to the draft RSPG Opinion**

### **Page 14/ A2.2 penultimate bullet**

Editorial point: add “facilitate” before “... more efficient use of spectrum”

### **A2.4.2 : 5G coverage obligations**

We support technology neutral spectrum licensing and in this context question the proposal that “Consideration should be given as to whether competition between operators will drive a timely migration to 5G or whether regulatory intervention should be considered”.

In the 3<sup>rd</sup> bullet it is suggested that rural coverage obligations both indoor and outdoor and transport links be considered for the 26GHz band. We would question the appropriateness of such obligations on 26GHz spectrum given its technical characteristics.

## **A4 – Frequency bands for long-term deployment**

### **26GHz band**

BT supports but suggests the following editorial amendment to the RSPG comments against the 26GHz band to avoid the impression that 26GHz (rather than say 3.4 - 3.6GHz) would be for the initial launch of 5G services :

Pioneer mmWave band for initial launch of 5G services using mmWave in Europe focusing on individual authorisation regimes. (under harmonisation)

### **32GHz band**

BT considers that the 32GHz band should remain under consideration for addition of a primary Mobile Service allocation and identification for IMT at the WRC-19. It should anyway be considered for harmonisation on a non-exclusive basis as an additional band for 5G in Europe, both for fixed broadband wireless access and mobile applications. The band is already widely used for fixed services in many countries, including in the UK where it is authorised as national spectrum access licences on a technology neutral basis permitting its use for “terrestrial radiocommunication”.

We encourage completion of European technical studies on use of the 32GHz band for 5G technologies as a high priority. These need to:

- (i) examine the issues in relation to compatibility with passive services to understand what limitations these may impose; and
- (ii) establish a clear view of aeronautical radar interests within Europe in the 32GHz band that have come to light at a late stage, to understand the actual extent of that use (geographical and bandwidth) in order to better understand the sharing possibilities, before policy decisions can be taken as to the priority that is afforded to such use relative to other new and extensive existing uses of the band, including 5G.

END