

## RSPG Consultation – Work programme for 2020

This is a very good document! We just want to add some minor comments.

Spectrum sharing & Additional spectrum, with regard to 5G:

3,8-4,2GHz is a recognized candidate band for 5G and is suitable for more dynamic spectrum sharing options, when harmonized in Europe.

Before full harmonization, a semi-harmonization can be made among all member states to make room for a single tier 100MHz for local spectrum licenses. This is particularly important for e.g. pan European industry verticals, for them to have similar market conditions within the European market. These local deployments can initially have more relaxed requirements on technology support for dynamic band sharing, and be upgraded when such technologies have been evaluated, piloted and supported in future 5G releases. In our view, the current system implementations are fully adequate for band sharing between 5G spectrum users, such as shared Radio access networks and local private operations, without extensive protection distances and can be administrated by NRAs under a more relaxed scheme and by the radio spectrum users on a peer to peer basis (piloting can be made)

Existing C-band users must however be protected and there are provisions and methodologies already available (aimed for the 3,4-3,8GHz band), that can be reused and implemented by NRA<sup>1</sup>. Also, it should be of advantage if more specific EU goals also can be formulated for the 5G deployments. Such goals are also important in order to apply the EECC comparative selection methods (innovation and business development) in a good manner<sup>2</sup>.

We therefore suggest, that the time lines in the Work programme should reflect a phased roll-out of 3,8-4,2GHz band in Europe.

The availability of 26GHz band spectrum is also very important and time line should be harmonized with the 3GHz bands, as 26GHz requires carrier aggregation (work in tandem) with the 3,5GHz band to function in an optimal way. We suggest that a good part of the 26GHz can be allocated on shared basis from the beginning, considering the high spatial isolation and the pronounced use of beamforming in this band.

There is recent very good progress in US for using 5G in the upper part of the C-band (3,7-4,2GHz), which is very encouraging also for Europe<sup>3</sup>.

Yours sincerely,

Zerofiber

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<sup>1</sup> Decision 2008/411/EC, the ECC Report-254 and -100. A quick market study on the C-band usage is recommended, including C-band reception on airplanes. Applications such as C-band earth stations have been taken into account in previous ECC reports and FWA sharing with C-band earth stations have also been deployed in the UK, since many years back with can be used for evaluation. A minor reassessment is possibly required for 5G e.i.r.p. levels and new antenna characteristics (e.g. possible use of "antenna nulling"). VSAT in C-band can likely be unprotected to reasons of age and very low market interest?

<sup>2</sup> E.g. for traffic security enhancements (vehicles, bicycling, pedestrians) for saving lives, increased energy efficiency and reduced traffic pollution from smart traffic control, mobile e-health, increased productivity within services- agriculture - and industry- sectors etc.

<sup>3</sup> <https://c-bandalliance.com/wp-content/uploads/2019/10/CBA-Press-Release-Auction-Principles-VF-1.pdf>.