

Submission to

Public consultation on Strategic spectrum roadmap towards 5G for Europe – 2nd Draft
RSPG Opinion on 5G networks

(RSPG17-034 FINAL)

The RSPG recognises that 5G promises to enable the delivery of a diverse set of applications and new services in a number of different markets, going beyond the traditional mobile broadband market.

5G is the brand name adopted by the ITU Assembly of 29 October 2015 for the so called "IMT-2020" systems that "will enable wireless communication to match the speed and reliability achieved by fibre-optic infrastructure".

I fully agree with RSPG, 5G is a concept that goes far beyond the traditional mobile broadband market. The 5G will have a huge impact on the so-called "vertical" sector and will provide the appearance of new players, new and innovative services and applications and, new business models.

For 5G to be successful, it is essential that the regulatory framework must be flexible to respond adequately to the needs of a very diverse and dynamic environment.

1. The RSPG is of the opinion that Member States will need flexibility in the way they authorise access to spectrum, for example: appropriate geographical areas (e.g. national, regional, city or hyper-local, e.g. for use in a factory), individual licensing or under a general authorisation framework.

Envisaged 5G applications are so diverse and will need to access to different frequency bands of the spectrum. Each case will be a case to be addressed considering simultaneously the general policy objectives and their particular circumstances.

National authorities responsible for spectrum management must have all the legal instruments and relevant information to choose in a flexible manner the most appropriate authorization regime.

In my view, and as a general principle, general authorisation framework will be the appropriate regime to allow the use of spectrum in the highest frequency bands (mmW) and, for lower frequency bands, where the use approaches saturation, the appropriate regime will continue to be the individual licensing regime. Where and when possible the prime framework should be general authorisation.

2. The RSPG is of the opinion that the Commission, together with Member States, should take actions to fully support 5G related policy objectives in rural areas and wide coverage, taking into account the role of satellite in achieving ubiquitous connectivity.

In what concerns rural areas and/or wide coverage, I am of the view that Member States, in collaboration with stakeholders and taking into considerations the general policy objectives of the Union, should first clearly identify, adopt and prioritise their national objectives for 5G and subsequently, together with Commission, take necessary actions to fully support the rollout of the solutions, namely funding applications such as satellite options and other relevant solutions to achieve ubiquitous connectivity.

3. The RSPG recommends that the Commission, in its research work-programs, study solutions for improving 5G connectivity and wide area coverage, especially in rural areas, thereby facilitating and progressing technology developments targeting the fulfilment of 5G related policy objectives.

I agree with the recommendation. This is an area where the Commission can and should have a more intensive intervention targeting problems and relevant aspects of coverage and connectivity of 5G uses and applications.

4. The RSPG is of the opinion that service performance and availability requirements may be relevant for some 5G cross border services to fully function and would need to be defined by the industry in a timely manner. In some cases an EU coordinated approach could be helpful in this regard to support a common European solution.

I agree with the RSPG. For cross-border services, the European Commission should work in close cooperation with the industry and manufacturers to define appropriate service performance and availability requirement in a timely manner.

I also agree that in cases such as ITS, in particular V2I, a coordinated approach may be helpful to achieve a common European solution.

5. The RSPG is of the opinion that coverage obligations can only be derived as a consequence of national policy objectives and characteristics (i.e. population distribution, geographical morphology, industrial and societal needs) and therefore cannot be harmonised on a EU-level.

I fully agree with RSPG opinion and conclusion, coverage obligations can only be derived as a consequence of national policy objectives and cannot be harmonised on a EU level.

However, it could be helpful to have a certain level of harmonisation of the main criteria used to define coverage and of the methodology to measure those criteria. In my opinion, RSPG is well placed to consider this sort of voluntary harmonisation, possibly through guidelines.

6. The RSPG notes that solving issues relating to facilitating the efficient deployment of ultra-dense networks is expected to be of high importance for the rollout of 5G in dense urban areas. The RSPG is of the opinion that Member States should assess the need for national actions that will enable easier site authorisation and installation, in particular for small cells, in order to make timely 5G deployment possible.

I agree with RSPG.

Site authorization and installation is a well-known problem for mobile operators. With the introduction of 5G, the situation is likely to worsen and will affect new players, especially for those applications using higher frequency bands.

If Member States want to make timely 5G deployment possible, they should assess and, where necessary, revise and adapt national, regional and local framework for site and installation authorisations.

To facilitate the efficient deployment of 5G networks in dense urban areas, the European Commission, at EU level, and Member States, at national level, should also assess and, where necessary, revise legislation concerning EMF limits.

7. The RSPG is of the opinion that all commercial licences in frequency bands identified for 5G within the Member States should be subject to trading or leasing to enable new market opportunities.

Although spectrum transfer or lease are allowed under the European framework for electronic communications in force, these management tools have been used in rare and specific cases and I am of the view that the situation will not change much in the future.

However, I also am of the view that the possibility for spectrum transfer or lease should remain open for commercial licences in frequency bands identified for 5G within the Member States.

8. The RSPG is of the opinion that Member States should consider appropriate measures to defragment the 3.6 GHz band, the primary 5G band, in time for authorising sufficiently large blocks of spectrum by 2020.

I agree with RSPG. Member States should assess the actual use of 3.6 GHz band, clear the full band, (3.4 – 3.8 GHz) and to consider the technical harmonization conditions set out in the CEPT Report 49.

9. The RSPG is of the opinion that in relation to the 26 GHz pioneer band (24.25 - 27.5 GHz):

- ***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.***

I Agree, Member States shall consider the possibility of a hybrid model in authorising the use of 26 GHz band with the focus on individual licence regime for 5G authorisations.

Member States should also make public all relevant information regarding the use of the 26 GHz band by FSS, EESS and SRS, including exclusion zones and any other relevant constraints.

Any final decision must consider the outcome of WRC-19 in what regards global harmonisation of 26 GHz band.

- ***the Commission should include as part of any technical harmonisation for the 26 GHz band, in high level terms, the requirements to maintain the possibility for continued development of incumbent satellite services (FSS and EESS/SRS). Future earth stations should be authorised based on transparent, objective and proportionate criteria to safeguard their future operations and ensuring that they are unlikely to have a significant impact on 5G deployment and coverage. Member States will remain fully responsible for granting or rejecting authorisation to a new satellite earth station application.***

As previously referred, any decision of the European Commission and/or Member States must consider the outcome of WRC-19 in what regards global harmonisation of 26 GHz band.

Any decision of the European Commission for the 26 GHz band shall not limit or constraint Member States flexibility regarding authorisation regime and conditions of use. Member States shall remain fully responsible for granting or rejecting authorisation to a new satellite earth station or 5G applications.

- ***Member States should make by 2020 a sufficiently large portion of the band, e.g. 1 GHz, available for 5G in response to market demand, taking into account that 5G deployment in this frequency range is expected to be used for local coverage.***

I agree with this opinion.

- ***Regulatory flexibility for the progressive release of the 26 GHz band will facilitate an efficient introduction of 5G without having an unnecessary negative impact on the current users of the band. Member States should plan any migration of fixed links necessary for ensuring the availability of the band for 5G, taking into account the geographical dimension of the market demand for 5G.***

I am of the view that the 26 GHz band should be cleared for licensing 5G applications and that Member States shall have regulatory flexibility to plan any migration of incumbent services taking into account the geographical dimension of the market demand for 5G.

10. The RSPG is of the opinion that general authorised frequency use can be an important breeding ground for innovation and contributes towards a dynamic market environment. The application of a general authorisation regime is foreseen in the 66-71 GHz band which could be an important band for 5G.

I agree that the application of a general authorisation regime to higher frequency bands such as the 66-71 GHz band may contribute a dynamic market environment and to foster innovation. However, the possibility of a individual licence regime shall not be excluded from this bands or parts of it.