



ecta RESPONSE

**TO THE PUBLIC CONSULTATION BY THE
RADIO SPECTRUM POLICY GROUP
ON**

DRAFT RSPG OPINION

**THE DEVELOPMENT OF 6G AND POSSIBLE IMPLICATIONS FOR SPECTRUM
NEEDS AND GUIDANCE ON THE ROLLOUT OF FUTURE WIRELESS
BROADBAND NETWORKS**

RSPG23-026 FINAL

1 AUGUST 2023

Introduction

1. **ecta**, the **European competitive telecommunications association**,¹ welcomes the opportunity to comment on the Radio Spectrum Policy Group (hereafter ‘RSPG’) consultation on its Draft Opinion entitled: *“The development of 6G and possible implications for spectrum needs and guidance on the rollout of future wireless broadband networks”* – RSPG23-026 FINAL.
2. **ecta** represents those alternative operators who, relying on the pro-competitive EU legal framework that has created a free market for electronic communications, have helped overcome national monopolies to give EU citizens, businesses and public administrations quality and choice at affordable prices. **ecta** represents at large those operators who are driving the development of an accessible Gigabit society, who represent significant investments in fixed, mobile and fixed wireless access networks that qualify as Very High Capacity Networks and who demonstrate unique innovation capabilities. **ecta** counts Mobile Network Operators (hereafter ‘MNOs’), Fixed Wireless Access operators (hereafter ‘FWA operators’) as well as Mobile Virtual Network Operators (hereafter ‘MVNOs’) among its members.

ecta members are actively: (i) investing significant amounts of resources for contributing to EU digital compass connectivity targets through deployment of sustainable electronic communications networks and services (fixed, mobile, FWA, (B2C, B2B, B2B2C, IoT)), and (ii): acting as challengers in an environment characterized by intense 5G deployment.

3. In a **period of rising inflation** (which may be temporary or of long duration), **ecta** cannot emphasize enough the importance of having **spectrum assignment procedures that promote joint coverage in rural areas, correct competitive imbalances, and avoid raising costs for operators** – so that the electronic communications networks and services making use of spectrum **remain affordable for users**.
4. **ecta** wishes to **thank the RSPG**, in the context of its considerations on spectrum requirements for future 6G networks, for providing an overview of what has been successful with 5G, and what has been less successful. This is what **ecta** requested.

Key ecta messages

5. **ecta**’s key messages in response to RSPG23-26FINAL are the following.
6. Technology and service neutrality. There should be no restrictions on operators deploying 6G in the existing harmonized bands for Electronic Communications

¹ <https://www.ectaportal.com/about-ecta>

Services. ecta is satisfied that the RSPG's Draft Opinion is consistent with this, although it would be preferable if this was affirmed more explicitly in the final RSPG Opinion.

7. Need to avoid inflated expectations for 6G. Industry and policy-makers should be cautious about creating inflated expectations for 6G, to avoid another hype cycle about 'the next G', leading to inflated spectrum fees, political pressure on roll-out which is disconnected from actual user demand and operators' ability to invest in infrastructure and monetise services, etc. Spectrum assignment in the context of 6G should be analysed with this in mind, also taking into account that user demand for the network and service capabilities being envisaged for 6G is far from materializing (indeed, user demand for 5G Stand-Alone capability remains limited so far). In any case, licensing of additional spectrum in the context of 6G is not to be expected before 2029. That being stated, consideration can be given to defining additional primary and pioneer bands in the coming couple of years, in a manner analogous to what was done for 5G, in order to drive the equipment industry's economies of scale, with an assumption of deployment from 2030 onward.

8. Spectrum assignment policies and procedures of many EU Member States must be substantially improved, to ensure sustainable investments from operators and the associated socio-economic welfare maximization. 6G spectrum auctions, aiming at awarding the frequencies which are not so far allocated for electronic communications services, should not be held at too early stage by the Member States just with the objective of gaining resources for state budget if the market context is not ready for 6G, (such as, for instance, the spectrum is not yet fully made available, 6G devices are not yet available, use cases are not mature). Good design of spectrum assignment procedures should ensure sustainably competitive markets, as competitive markets help to combat inflation. Future spectrum assignment procedures, including in the context of 6G, should focus first and foremost on promoting socio-economic welfare, in the form of joint coverage of rural areas by mobile and fixed wireless network operators in line with the EU's 2030 Digital Targets, as well as preserving competition, with all wireless network operators enabled to achieve balanced spectrum portfolios, plus enabling pro-competitive network sharing among operators. Policy decisions are needed in particular to avoid that some Member States' spectrum assignment proceedings are driven once again primarily by cash generation for state budgets, in ways that drain precious resources from the mobile telecoms market which are ultimately detrimental for users. In this context, ecta would welcome specific harmonization of the Member States's spectrum assignment proceedings, with a focus on limiting auction reserve prices, and aiming explicitly at avoiding the repetition of extremely

high auction prices, and deliberately unbalanced and anomalous outcomes (prevalent in the 700 MHz and 3,5 GHz bands due to auction design²), etc.

9. Network densification vs. economic and environmental sustainability. Pushing mobile and FWA network operators towards network densification and towards using mmWave frequency bands (e.g., 26 GHz, 42 GHz and even above) for 6G (and indeed even for 5G), is not a substitute for making available additional spectrum³ (e.g., in the sub-700MHz band, in the 2,3GHz band, in the upper 3,8-4,2 GHz and 6 GHz bands). This is a prevalent theme throughout the RSPG's Draft Opinion. Densification also stands at odds both with operators' economic sustainability, and with environmental sustainability. Using mmWave bands would mean far more costly networks for operators in future compared to current networks and would result in increased energy consumption, carbon emissions⁴ and visual pollution compared to today's networks. By contrast, enabling the use of additional low band spectrum (incl. in the 600 MHz band⁵) and additional mid-band spectrum would lead to a substantial lesser number of antenna sites compared to mmWave antenna deployments, and thus less land occupation, less visual pollution, and lower EMF emissions as well as a more sustainable business model to the benefit of end-users.

10. 26 GHz band needs to be made available in its entirety. Specifically, as regards the 26 GHz band, ecta considers that there is a need to assign the whole band (3 GHz of spectrum), and not just the upper 1 GHz large blocks for use by mobile/fixed-wireless access network operators. The band in fact, due to its characteristics, is well suited to the development 5G FWA services that enable the provision of gigabit connectivity services. In view of the EU Digital Target 2030, it will be necessary to ensure a wide availability of spectrum in this band, especially for the coverage of rural areas that will not be reached by fibre. The RSPG appears to be unduly guarded on this matter. See also ecta's comments below on spectrum for local/vertical networks; ecta disagrees that large blocks of 26 GHz spectrum should be reserved for local/vertical use.

11. Non-terrestrial networks. The RSPG seems to suggest that non-terrestrial networks (in particular new low earth orbit satellite constellations) represent a suitable

² Examples include Member States where 700 MHz and 3,4-3,8 GHz auctions were deliberately structured to have asymmetric outcomes (e.g. no 700 MHz spectrum for the new entrant, only 2 operators with large 700 MHz assignments, e.g. 2 out of 4 operators in the 3,5 GHz band being able to obtain 80 MHz, whilst the other 2 having only 20 MHz, etc.)

³ With regard to expected mid-band spectrum needs, in the light of 5G capacity expansion and for 6G in future, please refer to the 2021 Coleago Consulting Report: <https://www.gsma.com/spectrum/wp-content/uploads/2021/07/Estimating-Mid-Band-Spectrum-Needs.pdf>

⁴ The impact on the carbon footprint is addressed in a 2023 Analysys Mason Report: <https://www.analysysmason.com/consulting/reports/5g-mid-band-carbon-impact/>

⁵ For further details regarding the 600 MHz band, please refer to the ecta response to RSPG23-021 FINAL.

solution for serving rural areas. [ecta](#) disagrees, and considers that it is by far preferable, and in line with the EU's 2030 Digital Targets, for the Member States to adopt spectrum licensing policies that enable mobile network operators jointly, as well as fixed wireless network operators, to serve rural areas while delivering the gigabit connectivity with low latencies leveraging on edge computing capabilities that only terrestrial networks can offer. This can be achieved, for example, by prolonging mobile network operators' low and mid band spectrum licences in exchange for more extensive territorial coverage while correcting spectrum imbalances between incumbent and late entrant operators, and by fostering network sharing in rural areas. With reference to low bands, such policies have been implemented in France, and for some aspects, in Spain. These policies, and the positive outcomes thereof, could usefully be documented in an Annex to the RSPG's final Opinion.

12. Additional EU harmonized spectrum for local/vertical use cases. [ecta](#) challenges the notion, prevalent throughout the RSPG's Draft Opinion, that additional EU harmonized and locally licenced spectrum for local/vertical use cases would be needed, for 6G, or even before 6G is deployed. It is preferable to take stock of the situation, given that many Member States have reserved spectrum for local/vertical use, and that usage is modest at best, and certainly is limited to specific small geographic areas. A case-by-case assessment is needed of the objective needs of industry, including the geographic locations at which local/vertical spectrum usage is happening and the extent to which industry needs are served by mobile network operators or using spectrum assigned to mobile network operators but made available for specific industrial use. Certainly, reserving >100 MHz for local/vertical use cases across the EU is unnecessary and is unduly wasteful of mid-band spectrum. Similarly, the argument for reserving large quantities of 26 GHz or higher spectrum for local/vertical use cases needs to be tested against objective reality.

13. EMF: The theme of Electromagnetic Field Emissions is absent from the draft RSPG Opinion, except for the reference at page 10, paragraph 2, and the reference to [ecta](#)'s input during the workshop on 6G development (referenced in Annex 2, page 35). Nevertheless, [ecta](#) appreciates previous actions by RSPG regarding the issue of heterogeneous EMF limits across the EU, and notes that such restrictions already impair the assignment and usage of mmWave bands (e.g. 26 GHz restrictions in the Walloon Region of Belgium). Lower EMF limits in some Member States (or sub-national areas of Member States) create a two speed Europe, disadvantaging Member States with lower EMF limits in terms of 5G deployment, and the same could happen with 6G in the future. In order to promote the EU Single Market, [ecta](#) calls on the RSPG to recommend that the EU institutions adopt a Regulation on EMF to put an end to the distortion of the market resulting from certain Member States (e.g., Bulgaria, parts of Belgium, Italy) adopting stricter measures than others. This is also needed to ensure that late entrant operators are not discriminated against,

as in some cases it prevents them from making use of multi-operator antenna sites. [ecta](#) has provided comments on the SHEER Opinion in September 2022, covering this matter⁶.

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In case of questions or requests for clarification regarding this contribution, the Radio Spectrum Policy Group is welcome to contact Mr Luc Hindryckx, [ecta](#) Director General, or Ms Pinar Serdengeçti, [ecta](#) Regulation and Competition Affairs Director.

⁶ ecta position available here: <https://www.ectaportal.com/members-area/consultations/60-ec-consultations>
