



GSMA response to the Draft RSPG Work Programme for 2022 and beyond

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About the GSMA

The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Our vision is to unlock the full power of connectivity so that people, industry, and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions, and Outreach. This activity includes advancing policy, tackling today's biggest societal challenges, underpinning the technology and interoperability that make mobile work, and providing the world's largest platform to convene the mobile ecosystem at the MWC and M360 series of events.

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Introduction

The GSMA welcomes the opportunity to comment on the RSPG's draft work programme for 2022 and beyond. We hope that the following detailed comments can serve as a constructive contribution to the RSPG's deliberations on its draft.

The GSMA generally welcomes and supports the work items planned by the RSPG, in particular those with enabling potential for the delivery of the 2030 Digital Decade targets including the peer review process and upcoming RSPG opinion on WRC-23.

In this context it is important to note the results for 5G coverage in the Commission's 2021 Digital Economy and Society Index (DESI). The underlying Broadband Coverage Europe Report (based on 2020 data) reports a figure of 13.9% for 5G coverage of populated areas across the EU 27. The corresponding figure for rural areas is 1.5%. This indicates that significant work is needed to meet the Commission's objective of 5G coverage of all populated areas by 2030, with large potential for spectrum policymakers to provide mobile operators with the means and incentives not only to expand the reach of 5G to the edges of their networks, but also to increase capacity in densely populated areas in order to better serve society's demands.

We believe that several additions and amendments to the work programme are therefore required to foster a regulatory and policy environment that fully supports the achievement of the EU's ambitious connectivity goals.

The GSMA would like to provide the following detailed comments on each of the specific work items of the draft work programme.

Peer review and Member States cooperation on authorisations and awards

The GSMA welcomes increased cooperation and sharing of experiences among RSPG members to facilitate peer learning and ultimately aid in ensuring that the conditions for spectrum assignment support network deployment.

Since this work item was established in 2017, several relevant spectrum assignments have taken place. While both the peer review process and exchanges based on the pre-existing workshop format, have enabled increased information sharing and cooperation, it does not appear to have been sufficient to ensure that all awards are well designed or achieve optimal outcomes. By way of example, artificial scarcity resulted in inflated prices for the 3.5 GHz band

in Italy (2018) and Germany (2019), while poor design led to a 10-month auction in Portugal that delayed 5G deployments and ended with unsold spectrum in the 700 MHz band. In Poland the awarding of both harmonised 5G pilot bands, namely 700 MHz and 3.4-3.8 GHz, has been delayed by plans for a national 5G wholesale network as part of a new draft Cyber Security Act. In all four cases, the end result is spectrum that is not efficiently put to use, ultimately to the detriment of European citizens and businesses using mobile networks. Such a scenario could have potentially been avoided with a more thorough and critical peer review process taking into account the views of spectrum rights seekers.

In some member states, political involvement and changes in priorities have caused severe delays and uncertainties for awards, e.g. in Estonia the 3.6 GHz award has been delayed for 3 years, while in Sweden both the 700 MHz and 3.6 GHz awards were postponed. Even though the peer review may not be right for to handle such challenges, the RSPG should consider means to prevent arbitrary decisions resulting from the political environment.

We also consider that some further refinement to the process is necessary. This is especially important in the context of achieving ubiquitous 5G coverage by 2030, as envisaged by the Digital Decade. The GSMA therefore welcomes the proposed organisation of stakeholder workshops on awards to facilitate sharing of a broader range of views and experiences and thus ensure that stakeholders and policymakers work together to achieve gigabit speeds across the EU and thereby full digital inclusion. In particular, we consider that it would be valuable to discuss the challenges posed to award processes and efficient assignment by the current desire to allow local users to express their demand for spectrum rights in the primary spectrum market.

We would also encourage the RSPG to ensure that each peer review process addresses the trade-offs between mutually exclusive public objectives such as maximising revenues for the Treasury, market shaping through caps and set-asides, and fostering investments in capacity and coverage.

National authorities should take a long-term view regarding spectrum prices, rather than imposing prohibitive fees, thereby prioritising 5G investment. Assignment processes designed to maximise state revenues risk serious harm to consumers. The top priority for spectrum auctions should be to support affordable, high quality mobile services and while auctions are a tried and tested award mechanism they can and do fail when poorly designed.

In addition, licence durations, access conditions and coverage obligations should not inhibit the speed and scale of investment in network rollout. Licence obligations and conditions should be designed to minimise the cost of covering non-profitable areas and avoid distorting the award

of spectrum, following the best practices identified in the 5G connectivity toolbox. We also encourage the prolongation of licences for legacy spectrum following article 50 of the European Electronic Communications Code (EECC), without the need for auctions as was the case in France and as is currently being discussed in Germany.

WRC-23

The GSMA welcomes the RSPG's ongoing work to prepare recommendations, including on European Union position(s), on items which are of particular importance for Union policies as early as possible in the preparation process for WRC-23.

WRC-23 can support expansion of 5G into all areas and enable affordable connectivity for all citizens. We note that Agenda Items 1.1, 1.2, 1.3 and 1.5 address essential spectrum for 5G expansion. Additional low and mid-band spectrum will be critical to satisfy future demand for mobile broadband and meet the EU's ambitious 2030 connectivity goals.

The GSMA therefore has the following detailed comments on specific bands to be addressed under these Agenda Items:

- 6425-7125 MHz: identification for IMT is of paramount importance to realise universal 5G connectivity. Of the spectrum bands in the WRC-23 agenda, this is the only spectrum range enabling additional mid-band opportunity for IMT in the EU. 6425-7125 MHz is a priority band for mobile network operators as they look to increase capacity and lower costs. It will allow mobile network operators to provide not only enhanced affordable connectivity for greater social inclusion, but also to deliver the data speeds and capacity needed for smart cities, transport, and factories.
- 3.6-3.8 GHz: primary mobile allocation in Region 1 offers an opportunity to achieve greater harmonisation and improved access to spectrum. The payoff will be more affordable 5G services for everyone. This spectrum is at a balancing point between coverage and capacity that has provided the perfect environment for much of the earliest 5G connectivity. It is important to note that this spectrum band is already part of the key "5G pioneer band" in the EU (3.4-3.8 GHz). However, it is currently subject to severe restrictions in a subset of Member States. Primary mobile allocation in Region 1 for 3.6-3.8 GHz would make the coordination situation clearer in Member States that have borders with non-EU countries.
- 470-694 MHz: the GSMA supports a co-primary allocation of 470-694 MHz for mobile services in Region 1 as a way to ensure that Europe keeps its options open beyond 2030, without unnecessary delays if scope is found for the introduction of mobile services at

least in countries with low DTT usage. In this respect, we encourage the RSPG to ensure proper coordination between the WRC-23 and the 470-694 MHz work items. Additional spectrum below 1 GHz can be used to provide increased capacity and performance in rural areas that higher frequencies cannot cover in a cost-effective manner. In-building coverage will also be enhanced. The characteristics of low-band spectrum allow it to propagate more deeply into buildings and provide a consistent user experience across urban and rural areas at less cost. Increased sub-1 GHz IMT spectrum can therefore provide users in rural areas with comparable IMT access to those in urban areas and help lower broadband prices, making access to communications services more inclusive and thereby decreasing the digital divide. Availability of sub 1GHz spectrum resources also decreases the number of macro sites required, leading to lower energy consumption. In addition to mobile allocation in this band, the GSMA also supports IMT identification for this band.

The GSMA recognises that mid- and low-band spectrum is a scarce resource and making sufficient bandwidth available is a complex balancing act for regulators. However, we believe that finding solutions can bring affordable 5G for all.

“Good offices” to assist in bilateral negotiations between Member States

The GSMA appreciates the RSPG’s efforts to support cross-border coordination. Monitoring and reporting on coordination status and sharing best practises for coordination is important for the timely availability of spectrum and efficient spectrum use in border areas. We note that many EU member states have coordination challenges with non-EU countries and propose efforts to intensify good offices support for such bilateral negotiations where needed.

Mobile technology evolution – experiences and strategies

Mobile operators are exploring opportunities to deploy 4G and 5G technologies by re-using spectrum currently supporting 2G and 3G services.

For mobile operators, network rationalisation should be a voluntary opportunity to progressively reduce the extra cost of running multiple networks, which in turn benefits consumers and businesses with potential for improved capacity, data speeds and broadband coverage. In addition, the retirement of expiring network technologies helps operators to reduce energy consumption and thus combat climate change. Obligations to keep networks

based on outdated technologies running or to support legacy end user equipment should be avoided as they could delay network rationalisation.

We look forward to engaging further with the RSPG on this issue during the stakeholder workshops and fact-finding process, but in general the GSMA encourages RSPG members to favourably consider incentives for end users to migrate to the latest technologies, as an alternative to imposing obligations that ultimately result in inefficient networks and spectrum use.

Digital Decade 2030

The GSMA welcomes and supports the Digital Decade goals for 2030 and is fully committed to helping the EU achieve its digital ambitions. In the context of the ongoing COVID-19 pandemic, the essential nature of connectivity has been repeatedly demonstrated. Our vision is to unlock the full power of connectivity so that people, industry and society thrive.

However, if nothing changes, the Digital Decade connectivity targets will not be met. The regulatory status quo is no longer sufficient. Significant work remains in order to meet the Commission's objective of 5G coverage of all populated areas by 2030 and ensure ubiquitous gigabit connectivity. We therefore believe that the Digital Decade should be considered as a priority work item and that any policy recommendations should be aligned with its goals.

In particular, additional spectrum in mid-bands is critical to address 5G consumer take up and usage. Policymakers should plan to make an average of 2 GHz of mid-band spectrum available in the 2025-2030 timeframe, which is required to meet the International Telecommunications Union (ITU) data speed requirements by 2030 according to a recent study by the GSMA.¹ Without this additional spectrum, it will not be possible to realise the full potential of 5G.

Mid-band frequencies can help ensure that operators roll out 5G in optimised blocks of contiguous bandwidth at 5G launch. Doing so will boost 5G performance, decrease handset complexity, lower network density and make 5G connectivity more affordable for everyone thus ensuring full digital inclusion.

In this regard, we note that the two main mid-bands with potential for increased availability of spectrum for mobile services are the upper 6 GHz band and the 3.8-4.2 GHz band. While the upper 6 GHz will be discussed under the WRC-23 work item, there is no work item related to 3.8-4.2 GHz included in the draft RSPG work programme. The GSMA considers that given the

¹ [Vision 2030 Insights for Mid-band Spectrum Needs](#), GSMA, July 2021

current status of 5G connectivity in the EU and the work that remains to be done to achieve good quality 5G coverage of all populated areas by 2030, further discussions are required. It would therefore be appropriate to discuss this topic under the Digital Decade 2030 work item, ensuring coordination with the opinion of RSPG on WRC 23 agenda items 1.2 (on the upper 6 GHz) and 1.3 (on 3.6-3.8 GHz).

The GSMA recognises that the RSPG has previously highlighted the importance of additional spectrum for verticals and local networks. In its Opinion² of 16 June 2021, the RSPG recommended that “MS investigate the possible use of the band 3.8-4.2 GHz for local vertical applications (i.e. low/medium power) while protecting receiving satellite earth stations and other existing applications and services.” We fail to understand or agree that 400 MHz of extremely valuable spectrum in the 3.8-4.2 GHz band will be efficiently used if only allocated for vertical and local networks, noting that many member states have already set-aside spectrum or otherwise enabled local licenses in harmonised mobile bands. We request that the RSPG reconsider this recommendation and provide justification as to how local and vertical networks contribute to the European digital targets for 2030. Such networks typically only serve a very dedicated purpose, while obligations to serve society as a whole are imposed on nationwide operators. It is very important to ensure that valuable spectrum is not fragmented for dedicated uses in such a way that the demands of society can no longer be met in the future.

In addition, we consider that the RSPG should address the availability of the lower UHF band for mobile after 2030, at least in countries with low DTT usage. By preparing this work ahead of time, it will be possible to ensure that new uses are not unnecessarily delayed and can contribute to the achievement of the 2030 Digital Decade goals. We therefore welcome the RSPG’s proposed work item on the future use of the frequency band and encourage coordination with the Digital Decade 2030 work item. We have provided some further specific comments in the context of the envisaged work item on a strategy for UHF beyond 2030.

Finally, we would like to note the links between a possible new Radio Spectrum Policy Programme (RSPP) and the RSPG work item on the 2030 Digital Decade goals. Spectrum policy is one of the key levers in the hands of policymakers to achieve the 2030 Digital connectivity goals, as the Commission has rightly pointed out in the proposed “Path to the Digital Decade”. We take this opportunity to note that in our view the two instruments are fully complementary, and the Digital Decade policy programme should not be a substitute for an RSPP. Rather, we envisage EU harmonisation needs being addressed in a RSPP, with a follow up of its implementation at both the EU and Member State level subsequently integrated in the reporting and monitoring provisions of the Digital Decade policy programme.

² RSPG Opinion on Additional spectrum needs and guidance on the fast rollout of future wireless broadband networks ([RSPG21-024](#)), 16 June 2021

The development of 6G and possible implications for spectrum needs and guidance on the rollout of future wireless broadband networks

The GSMA welcomes the RSPG's anticipated work in this regard, in particular the evaluation of 5G in Europe including auction design, deployment progress, etc. with the aim of establishing successes and issues to be addressed to input to future 6G strategies.

The GSMA also welcomes the RSPG's recognition of the pivotal role of wireless broadband and its intention to consider the necessity of making a certain amount of harmonised spectrum available in a timely manner including in spectrum bands targeted for 5G including low and mid bands.

We look forward to engaging further with the RSPG in this regard during the high-level workshops and consider that it may be useful to provide some indicative timing for such workshops in the final work programme.

Strategy on the future use of the frequency band 470-694 MHz beyond 2030 in the EU

The UHF 470-960 MHz band is key for the growth of mobile services, not just due to its coverage capacity, but also for its 5G-ready capabilities. We therefore welcome the RSPG's proposal for a deliverable in this regard.

As previously discussed, the band can be used to provide increased capacity and performance in rural areas that higher frequencies cannot cover cost-effectively and is therefore necessary to create greater equality between urban and rural broadband connectivity and address the digital divide. Availability of sub 1GHz spectrum resources also decreases the number of macro sites needed, leading to lower energy consumption.

An opportunity to achieve this goal could be the possible co-primary mobile allocation of 470-694 MHz for mobile at WRC-23. The GSMA therefore considers that this work item should also provide for a deliverable assessing the benefits of co-primary allocation before the RSPG finalises its opinion on WRC-23 in November 2022.

Role of Radio Spectrum Policy to help combat Climate Change

In general, efficient spectrum policy supports climate goals. Through the availability of sufficient spectrum resources and avoiding unnecessary deployment limitations and requirements, spectrum regulators can reduce climate impacts.

The GSMA agrees that a stakeholder workshop would be required in the context of identifying methodologies to assess the energy efficiency of wireless technologies and considers that this should be included as one of the deliverables in the final work programme. However, we would like to reiterate that any proposed measure should take into account not only the sector's direct impact on energy use and emissions of wireless networks, but also its indirect impact on other sectors through the enablement effect.