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**RSPG
Radio Spectrum Policy Group**

**GSA Response to the draft RSPG Opinion on
the EU-level policy approach to satellite Direct-to-Device
connectivity and related Single Market issues**

Global mobile Suppliers Association

The GSA (Global mobile Suppliers Association¹) is the leading industry supplier association, whose Members and Associates include most of the leading mobile suppliers. GSA develops strategies and plans, and contributes studies and technical analysis to international, regional and individual country policymakers and regulators to facilitate the timely availability of spectrum for use by mobile network operators. GSA has a focus group for spectrum topics for technical and regulatory matters of radio spectrum pertaining to the successful evolution of International Mobile Telecommunication (IMT) and associated radiocommunication systems. GSA comprises a team of spectrum and regulatory affairs specialists from GSA Executive Member and GSA Member companies. In addition, GSA reports regularly on global spectrum developments.

If any additional clarifications are required for this response, please do not hesitate to contact: Rauno Ruismaki, rauno.ruismaki@nokia.com, Chair GSA CEPT spectrum group.

Scope of GSA's response

GSA would like to thank RSPG for the opportunity to provide comments on the draft RSPG opinion on the EU-level policy approach to satellite Direct-to-Device connectivity and related Single Market issues.

Whereas the draft RSPG opinion discusses specificities of four distinct types of D2D services; D2D-IMT, D2D-MES, D2D-IoT SRD and D2D-IoT MSS, the GSA response provides views on D2D-IMT.

GSA is aware of the recent global developments of D2D-IMT, in particular for countries with large underserved geographical areas, outside Europe, developing regulatory frameworks that facilitate the deployment of such a service. We should emphasize that the extent of terrestrial network coverage across Europe is significantly better compared to many other regions of the world, where the development of D2D-IMT regulatory frameworks are currently considered or already established. As per GSMA's Report² on the state of mobile internet connectivity in 2024, in Europe and Central Asia the population coverage gap, as shown in Figure 1, is approximately 1%, which is lower than the global 4% shown in Figure 2. This is likely to contribute to why, no application for providing commercial D2D-IMT services has been requested in EU Member States yet, as highlighted in the RSPG draft opinion.

¹ <https://gsacom.com>

² [GSMA | The State of Mobile Internet Connectivity Report 2024 - Mobile for Development](#)

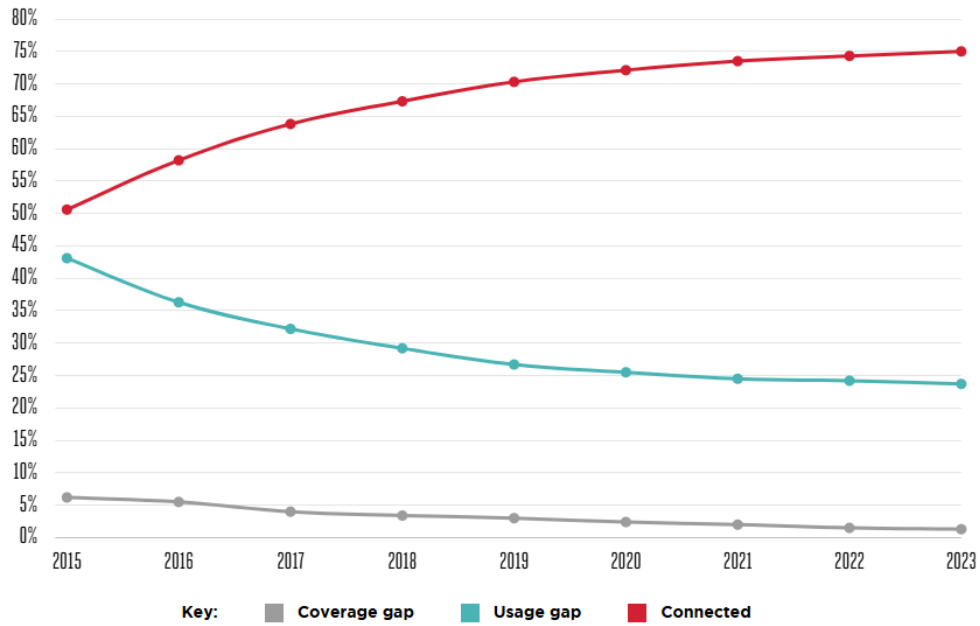


Figure 1: State of mobile internet connectivity in Europe and Central Asia
 (Coverage gap refers to the percentage of population living in areas without terrestrial coverage. Usage gap refers to the percentage of population living within terrestrial mobile coverage but not using it)

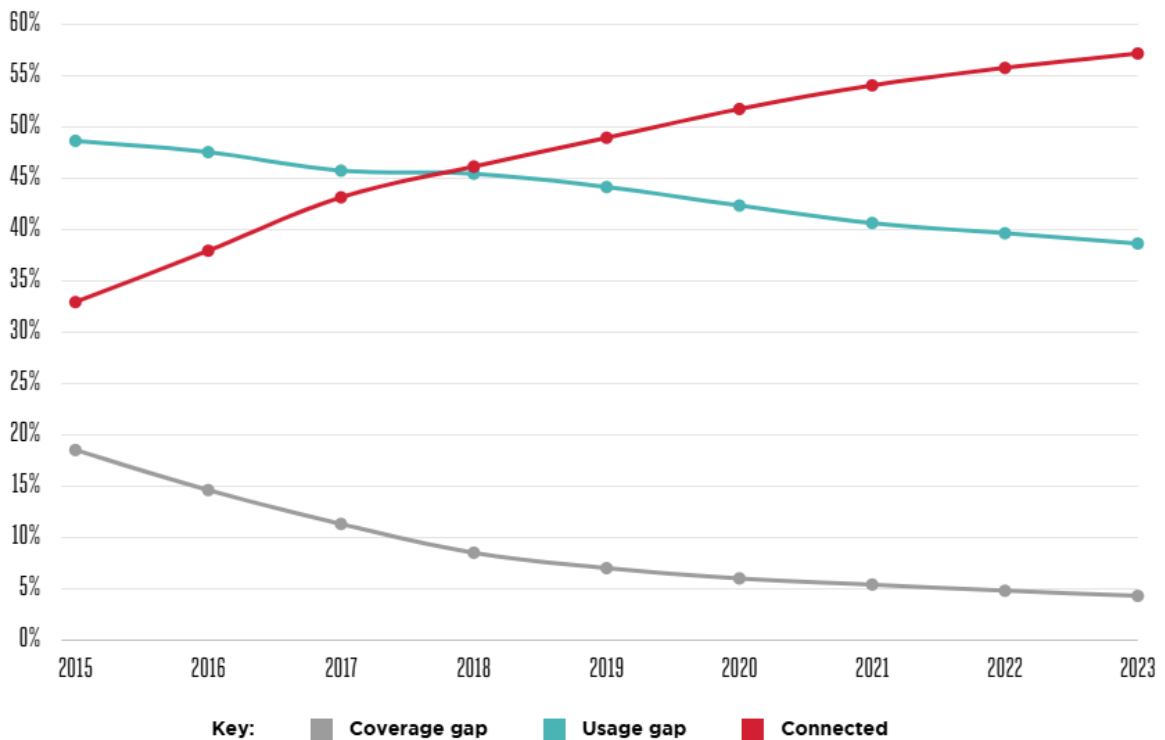


Figure 2: State of mobile internet connectivity globally
 (Coverage gap refers to the percentage of population living in areas without terrestrial coverage. Usage gap refers to the percentage of population living within terrestrial mobile coverage but not using it)

Echoing RSPG's perspective

GSA shares the view of RSPG with respect to the nature and the perceived benefits of the D2D-IMT service.

GSA also shares RSPG's view that the benefits of D2D-IMT would result from the use of the service to provide complementary coverage in remote areas or when terrestrial mobile (ECS) networks are temporarily unavailable due to natural disasters or network failures. Thus, the D2D-IMT service should complement and not compete with terrestrial mobile networks.

Moreover, from the three options presented by RSPG on how to introduce D2D-IMT at national level, we agree that D2D-IMT being an integral part of the terrestrial ECS licence is the most suitable and the least complex approach.

GSA also shares the view that technical harmonisation of the conditions and the use of D2D-IMT services at European level would support ensuring the protection of terrestrial ECS networks across the Union. For this, technical studies on sharing and compatibility of D2D-IMT with terrestrial mobile ECS networks are needed, addressing cross border interference issues and suitable quantification of acceptable operating conditions.

Furthermore, GSA also echoes RSPG's view that for operations under RR No. 4.4, at this stage, there is no definition and no quantification of an acceptable interference level towards other spectrum users (including mobile ECS networks), hence an impact assessment is needed.

We should emphasize that for decades, the deployment of terrestrial ECS networks has enabled reliable and high-speed mobile broadband connectivity with enhanced QoS to European consumers and businesses, transforming the way people communicate, work and act together. Therefore, enabling D2D-IMT services across Europe should be made in a way that does not undermine the long-lasting benefits that terrestrial ECS networks have delivered for European citizens and businesses.

Need to understand further D2D-IMT service quality

To allocate spectrum efficiently and ensure D2D-IMT services meet user expectations, it is crucial to understand the performance (spectral efficiency, throughput, latency, etc.), and evaluate D2D-IMT service quality. Unlike terrestrial networks, D2D-IMT is delivered within strict capacity constraints due to technical and regulatory requirements (e.g. satellite emission power) and high propagation losses over the long-distance service links. Therefore, it is important in Europe to study and assess the expected performance of the D2D-IMT service evaluating the service that can be

delivered to end-users, for instance bit-rates and the total capacity that the D2D-IMT networks can deliver.

Cross border interference issues

Some countries, such as the United States, Australia, and Canada, have already developed their national regulatory frameworks for D2D-IMT. The geographical specificities of those countries make the cross-border interference issue less critical. This has allowed them to focus on the development of an interim framework highlighting that future arrangements are needed for the coordination with neighbouring countries.

Given Europe's densely populated and diverse geography, each EU Member States has its own national coverage requirements. Therefore, establishing a harmonised framework in Europe requires addressing the challenges of cross-border interference.

The development of harmonised technical conditions for D2D-IMT should consider technical studies, coordination mechanisms and interoperability requirements that assess cross-border interference. As a result, appropriate regulatory limits and measures to protect terrestrial ECS networks at the borders of neighbouring countries should be determined.

Aspects of the suggested Mandate to CEPT

Regarding RSPG's suggestion for a Mandate to CEPT, GSA is generally supportive of the development of a framework with harmonised technical conditions for D2D-IMT in the European Union. The harmonisation of technical conditions, and in particular the development of a coexistence framework with existing terrestrial ECS networks including interference mitigation measures, is essential for the use of D2D-IMT across the Union.

However, we would like to raise some concerns:

D2D-IMT frequencies

We note that RSPG describes the D2D-IMT service as one that uses in bands that have been harmonised within the EU for terrestrial ECS, meaning 700, 800, 900 MHz, 1400 MHz, 1800 MHz, 2 GHz, 2.6 GHz, 3.4-3.8 GHz, 26 GHz and 42 GHz (footnote 4 of the RSPG opinion). In our view, limiting the scope of the possible Mandate to the consideration of frequency bands discussed under WRC-27 AI 1.13 (i.e. bands between 694/8 MHz and 2.7 GHz) would be a more appropriate approach. It will reduce the likelihood of extended fragmentation of D2D-IMT use across EU member states, the

ecosystem complexity and cost as well as the complexity of technical and regulatory evaluation that needs to be undertaken to develop appropriate harmonised frameworks.

Timelines and relevance to WRC-27 AI 1.13

We note that a possible EC Mandate on developing harmonised technical conditions for the use of D2D-IMT will likely overlap with the existing CEPT work on WRC-27 AI 1.13. Therefore, if the EC Mandate targets the development of harmonised technical conditions for D2D-IMT prior to WRC-27, it would be appropriate that these conditions are based on conservative assumptions, avoiding the risk of the EU concluding on conditions for D2D-IMT that offer less protection to terrestrial ECS networks, compared to those offered by ITU-R Radio Regulations.