



EUROPEAN COMMISSION

DIRECTORATE-GENERAL FOR COMMUNICATIONS NETWORKS, CONTENT AND TECHNOLOGY

Digital Decade and Connectivity
Radio Spectrum Policy Group
RSPG Secretariat

Brussels, 18 June 2024
DG CNECT/B4/RSPG Secretariat

RSPG24-023 FINAL

RADIO SPECTRUM POLICY GROUP

Request for an Opinion

on the EU-level policy approach to satellite Direct-to-Device connectivity and related Single Market issues

RSPG Secretariat, office L-51 05/DCS,

Commission européenne/Europese Commissie, 1049 Bruxelles/Brussel, BELGIQUE/BELGIË

Telephone: direct line (+32-2)29.21.261, switchboard 299.11.11;

E-mail: cnect-rspg@ec.europa.eu Web-site: https://radio-spectrum-policy-group.ec.europa.eu/index_en

Web-site CIRCABC: <https://circabc.europa.eu/w/browse/f5b44016-a8c5-4ef6-a0bf-bc8d357debcb>

Request for an Opinion on the EU-level policy approach to satellite Direct-to-Device (D2D) connectivity and related Single Market issues

Rationale

The satellite communication market is experiencing a substantial growth. Technology progress, improved satellite manufacturing, reduced launch costs, and increasing connectivity needs have paved the way for the entry of new market players, focusing mainly on Low Earth Orbit (LEO) satellite constellations, and innovation in different communication services thus increasing competition in the satellite communications market.

Especially satellite Direct-to-Device (D2D) connectivity has been recently attracting a lot of attention as it has the potential to complement and extend the reach of terrestrial mobile networks to unserved or underserved areas thus bridging the mobile connectivity gaps. Satellite D2D is a concept built around two major solutions of spectrum use by space and terrestrial networks, namely:

1. A frequency band allocated to the mobile service and used for terrestrial systems capable of providing electronic communications services is also used for satellite D2D connectivity without any modification of the mobile terminal, under a partnership model with a holder of rights of use of spectrum within that band in a given country;
2. A frequency band allocated to the satellite service (typically to the mobile satellite service) is used for satellite D2D connectivity to serve modified/adapted mass market mobile terminals.

Various national and cross-border regulatory issues related to operating LEO constellations and providing satellite D2D connectivity need to be considered further. Some aspects are planned for discussion at the WRC-27 (Agenda Items 1.5 and 1.13). However, the fast development of the LEO satellite sector has already been causing regulatory challenges, and certain satellite and mobile network operators are expected to deploy satellite D2D solutions even before the WRC-27.

While the FCC has been establishing a national US framework for Supplemental Coverage from Space¹, regulatory issues related to satellite D2D are being tackled by the CEPT within its FM44 group, and satellite D2D connectivity is addressed at various events like the BEREC workshop on 22 May 2024, the EU has not yet established a common strategy.

¹ [FCC Advances Supplemental Coverage from Space Framework | Federal Communications Commission](#)

Likewise, while outside the EU, many administrations could subject the access to their market by LEO constellations operated by third countries' operators to the compliance with national rules and the ITU Radio Regulations, the EU Member States lack a single market approach.

Scope of RSPG activity

Against this background and without duplicating the work of its sub-group on WRC, the RSPG is invited to assess different policy approaches and the need to establish a common EU policy approach for:

1) Satellite D2D connectivity considering, inter alia:

- the current ITU (especially, but not limited to, Article 4.4 of the ITU Radio Regulations) and EU framework;
- the national authorisations;
- the current/expected use of (potential) frequency bands for satellite D2D connectivity within and outside the EU, and the need for regulatory coordination or technical harmonisation across the EU;
- issues related to the handover between non-terrestrial and terrestrial networks;
- potential interference issues, including across borders, and possible mitigation measures;
- the latest technological developments; and

2) Authorising LEO constellations operated by third countries' operators, considering inter alia:

- the current ITU and national frameworks, existing national authorisations and conditions attached thereto;
- security and sovereignty issues and other challenges related to the operation of LEO constellations.

Following the above assessment, the RSPG should provide recommendations in line with the EU-level policy priorities on the most appropriate EU-level policy approach, considering the efficient and effective use of radio spectrum, safeguarding the EU interests, and promoting the development of the EU single market.

Planned type of deliverable

RSPG opinion

Time schedule

RSPG Questionnaire/workshops as appropriate

Draft opinion for public consultation: February 2025

Final opinion: June 2025