

Radio spectrum policy programme

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The Commission presents a report on the **Radio Spectrum Inventory**.

The EU spectrum inventory - created as part of the radio spectrum policy programme- aims to allow identification of frequency bands where efficiency of existing spectrum use could be improved in order to accommodate spectrum demand in support of Union policies, to promote innovation and to enhance competition.

The report highlights **the progress made and difficulties encountered** in implementing the spectrum inventory. It analyses **technology trends, and future needs regarding spectrum** and examines whether there is a need for additional frequency bands to be harmonised for wireless broadband.

In spite of the difficulties encountered in collecting data, the initial inventory analysis has provided significant insights into the situation with regard to spectrum availability and use in the EU. These are as follows.

Analysis of supply and demand: a number of frequency bands which are currently not used or are substantially under-utilised in most Member States have been identified, though there may be variations across Member States. The analysis of technology trends, future needs and demand for spectrum suggests that **many of the different types of applications, categorised in 14 application groupings** are and will be in need of more spectrum. The report suggests a quantitative assessment of the short, medium and long-term growth in demand that can be expected for each grouping.

On the basis of the preliminary results the report notes that **unused spectrum in the 400 MHz-6GHz range is rare but there are examples**. On the demand side, future spectrum usage is expected to increase significantly for many applications over the next 10 years. This situation makes re-assignment increasingly difficult and costly.

The Commission considers that a sustainable way to satisfy spectrum demand in the medium and long term is to **invest more time and resources in identifying and developing more sophisticated spectrum sharing concepts as detailed below**, subject to the protection of effective competition:

- licensed Shared Access (LSA) assignment;
- geographical spectrum sharing with devices linked to geo-location databases (once available); and
- making more effective use of existing networks and spectrum assignments through densification, increase in spectrum re-use, and spectrum sharing between operators.

Based on the inventory analysis performed by the Commission and more detailed supply and demand information, the report sets out certain aspects as inventory output: (i) wireless broadband spectrum; (ii) additional harmonised frequency bands for wireless broadband; (iii) sharing of radar bands; (iv) wireless microphones; (v) satellite communications; (vi) short range devices.

Data collection: it is also apparent that some of the data, collection of which was envisaged will remain unavailable for the foreseeable future in some Member States which do not themselves collect this data and which consider it impossible to increase their data availability. The Commission will **continue to**

cooperate with the Member States both in collecting data that are already available at Member State level and in obtaining additional data on a targeted basis. In particular frequency bands relevant to the implementation of the RSPP will be targeted.

In addition, the Commission will seek relevant data from Member States that request derogations from harmonisation measures on the basis of particular national situations. The data analysis tool will be complemented through other sources, e.g. through studies, inputs from RSPG or direct information from spectrum users.

The Commission will continue to build up the inventory with the aim of fulfilling its main purpose – achieving more efficient use of spectrum. The importance of evidence-based spectrum policy-making remains high on the agenda as demands for more spectrum from many sectors have been documented in the report. Discussions will continue with the Radio Spectrum Committee members on how to pursue the collection of data for the inventory.