

# Questionnaire on the prospects for the use of the 470-694 MHz band

## Introduction

Spectrum is a scarce public good. In particular, the UHF band below 1 GHz has propagation characteristics that make it valuable for cost-effective implementation of wireless networks with universal indoor and outdoor coverage.

The 470-694 MHz ('sub-700 MHz') spectrum is currently used across the European Union on a primary basis for digital terrestrial television ('DTTB') and on a secondary basis for wireless audio PMSE, as well as for wind profiler radars and radio astronomy service. The dissemination of cultural content, information and ideas, along with the development of media and the creative, cultural and research sectors rely heavily on it for the wireless delivery of content to end users. At the same time, alternative forms of distribution of such content are already available or spreading, albeit at very different rates from one country to another.

Sharing a frequency band between wide-area bidirectional communication services (uplink and downlink) on the one hand, and the unidirectional television broadcasting service combined with the PMSE audio service on the other, is technically problematic when their coverage areas overlap or are close to each other. Any repurposing of the 470-694 MHz band must therefore properly consider the availability of viable alternatives to maintain the typical objectives of national audiovisual policies, such as social cohesion, media pluralism and cultural diversity, which are also protected by the European Union.

Lamy's report<sup>1</sup> to the Commission recommended that in order to achieve the goal of long-term regulatory predictability for DTTB, the 470-694 MHz band should be available for DTTB until 2030, although this recommendation would be subject to review by 2025. The positioning of PMSE requirements should also be carefully considered.

The European Parliament also specifies that the Member States<sup>2</sup> should apply a flexible approach where possible and should be able to allow the introduction of alternative uses such as terrestrial wireless broadband electronic communications services in the 470-694 MHz band according to national needs for distribution of broadcasting services, including for innovative user-driven initiatives. Such alternative uses should guarantee continued access to spectrum for broadcasting as the primary user, subject to national demand. To that end, Member States should promote cooperation between **broadcasters, broadcasting operators** and **mobile operators** in order to facilitate the convergence of audiovisual and Internet platforms and shared spectrum use.

Member States shall ensure availability at least until 2030 of the 470-694 MHz band for the terrestrial provision of broadcasting services, including free television, and for use by wireless audio PMSE on the basis of national needs, while taking into account the principle of technological neutrality. Member States shall ensure that any other use of the 470-694 MHz band on their territory is compatible with the national broadcasting needs in the relevant Member State and does not cause harmful interference to, or claim protection from, the terrestrial provision of broadcasting services in

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<sup>1</sup> P. Lamy, Report to the European Commission "*Results of the work of the high level group on the future use of the UHF band (470-790 MHz)*", [https://ec.europa.eu/newsroom/dae/document.cfm?doc\\_id=8423](https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=8423)

<sup>2</sup> Decision (EU) 2017/899 of the European Parliament and of the Council of 17 May 2017 on the use of the 470-790 MHz frequency band in the Union. <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32017D0899>

a neighbouring Member State. Such use shall be without prejudice to obligations resulting from international agreements, such as cross-border frequency-coordination agreements.

In order to facilitate the use of the 470-694 MHz band for services other than broadcast, in analogy with the Article 1(1) of the Decision (EU) 2017/899, Member States could include in their national roadmaps, where appropriate, information on measures, including any support measures (possible compensation for completing the transition in spectrum use, in particular for **end users**), to limit the impact of any possible transition process on **the public** and on **wireless audio PMSE** use and to facilitate the timely availability of interoperable television **broadcasting network equipment** and **receivers** in the internal market. Additionally, the importance of PMSE extends far beyond the broadcasting sector to include online media, trade shows, live cultural, sport, political, and community events.

According to a recent report from EBU<sup>3</sup> public and private broadcasting create the public space for broad and reliable information for the population and social cohesion, especially in times of crisis. In times of fragmented information landscapes, increasing disinformation and hate speech, quality media make an indispensable contribution to political discourse by producing, verifying and distributing reliable information. They are a central factor in the democratic decision-making process. Public value plays an important role in broadcasting across all genres, in informative as well as entertaining formats, in "classic" news and political information, in special information and entertainment offerings and broadcast coverage of high-profile special events. In this way, high quality content is available to all segments of the population. There is huge public value in broadcast coverage of different events, from small community-based events through to the large national and international occasion. It should also be noted that production of media content underpins not only broadcasting but also online platforms.

As for Article 7 of the Decision (EU) 2017/899, the Commission shall, in cooperation with the Member States, report to the European Parliament and to the Council on developments in the use of the 470-694 MHz band, with a view to ensuring efficient use of spectrum, pursuant to the applicable Union law. The Commission shall take into account the **social, economic, cultural** and **international** aspects affecting the use of the 470-694 MHz band pursuant to Articles 1 and 4, of (EU)2017/899 further technological developments, changes in **consumer** behaviour and the requirements in connectivity to foster **growth** and **innovation** in the Union.

The Commission published in 2022 a study<sup>4</sup> assessing the state and the future trends of the use of the 470-694 MHz band within the European Union, and third countries around the world. The study considers the extent to which Member States are making use of the most recent DTTB and PMSE technologies, and the degree to which there remains room for further improvement. It also documents Member States' opinions on the future use of the band, and the implications foreseen on the ability of DTTB and PMSE to continue operating satisfactorily in the event of any significant changes.

RSPG in its "*Opinion on the strategy on the future use of the frequency band 470-694 MHz beyond 2030*"<sup>5</sup> recognised the possibility that in the next decade, 2030-2040, a single scenario of spectrum usage may not be applicable to all Member States and in that sense that there is added value in exploring how different scenarios can coexist in EU.

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<sup>3</sup> EBU Tech Report 075, "*Broadcasters' spectrum needs for audio PMSE applications*", <https://tech.ebu.ch/publications/tr075>

<sup>4</sup> <https://op.europa.eu/en/publication-detail/-/publication/8c6755a1-4f55-11ed-92ed-01aa75ed71a1/language-en>

<sup>5</sup> [https://radio-spectrum-policy-group.ec.europa.eu/document/download/6cb17632-9aba-4a15-ae9-28b9d272d9ed\\_en?filename=RSPG23-035final-RSPG Opinion on UHF beyond 2030.pdf](https://radio-spectrum-policy-group.ec.europa.eu/document/download/6cb17632-9aba-4a15-ae9-28b9d272d9ed_en?filename=RSPG23-035final-RSPG%20Opinion%20on%20UHF%20beyond%202030.pdf)

In that context RSPG formed the mandate of the work of the «Assessment of future usage of the frequency band 470-694 MHz within the EU» group as follows:

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1. *The RSPG should carry out an assessment of the prospects for the use of the sub-700 MHz band in the decade 2030-2040 by the different Member States, seeking information from **relevant institutional stakeholders**.*
2. *RSPG should also collect lessons from early initiatives from Member States introducing other usages than broadcasting to address audio PMSE long term developments in order to preserve sufficient spectrum for audio PMSE needs, taking also into account the transition of audio PMSE towards new spectrum efficient technologies.*

*The RSPG also should gather information from **industry stakeholders** on expected technological developments in both mobile and broadcasting platforms. »*

The objective of the aforementioned group is to prepare a Report on the future use of the 470-694 MHz band in the EU, based on the observation that the current regulatory framework, focused on DTTB, still seems adequate in the longer term (i.e. beyond 2030) in some EU countries while it no longer reflects the needs for use in other countries.

In order to gather relevant information and collect the experience of relevant initiatives, as a first step the group prepared the present Questionnaire that is addressed to five main stakeholder groups:

1. Regulators
2. Network providers
3. Contents providers
4. End-users of Spectrum
5. Other Interested Parties (e.g. Consumers, Manufactures, Installers, Retailers)

The purpose of the Questionnaire is to gather their views on established spectrum and service rights, the effects of possible spectrum refarming in industry, networks, content creators and distributors, consumers, society, culture, political and social life, innovation and growth within the European Union and, if possible, in neighbouring countries.

## Glossary

*The present glossary is provided, among other things, for the purpose of resolving any ambiguities in the use of certain terms.*

- Audio-Visual Service Provider:** The subject that holds a right to provide a tv channel/content stream, awarded by some State entity, and consequently decides the schedule of linear TV
- Digital divide:** the economic, educational, and social inequalities between those who have computers and online access and those who do not
- DTTB:** Digital Terrestrial TV Broadcasting
- DVB-T, DVB-T2:** Digital Video Broadcasting – Terrestrial, is the DVB European-based consortium standard for the broadcast transmission of digital terrestrial television
- HEVC:** High Efficiency Video Coding, also known as H.265 and MPEG-H Part 2, is a video compression standard
- IMT:** International Mobile Telecommunications,
- MPEG 4:** a group of international standards for the compression of digital audio and visual data, multimedia systems, and file storage formats
- MUX:** abbreviation for multiplex. A grouping of program services arranged as interlaced data packets, transmitted together as part of a single broadcast and split at the end of reception.
- MFN:** Multi Frequency Network
- Original Content Provider:** The subject that makes the programme and try to sell it (possibly through a broker) or that is commissioned by the Programme Service Provider to make a certain programme.
- OTT:** *Over-The-Top*, delivery method of film and TV content over the internet on-demand, across many different devices, without the need for traditional broadcast, cable, or satellite pay-TV providers
- PBS:** Public Broadcast Services
- PMSE:** Programme-making and special events
- PMS:** Public Media Service
- PPDR:** Public Protection and Disaster Relief
- SFN:** Single Frequency Network
- Topology of Network:** refers to the arrangement of different elements in a network, such as transmission sites, links, nodes, and the interconnections between them
- TV tax:** a tax that people are required by law to pay to the government if they own a television (the rules for this tax may vary from country to country)
- UHF:** Ultra High Frequency band (300 MHz to 3 GHz)

## Guidelines for responding

Responses to the questionnaire must be submitted using the Excel file that can be downloaded from the [RSPG Consultations webpage](#).

Follow the instructions below:

1. Download the Excel file from the RSPG website. The Excel file does not contain any macros or executable code and is safe to edit.
2. Enable changes to the Excel file and save it locally with a meaningful name (e.g. containing the respondent's name).
3. Enter answers only and exclusively in the boxes highlighted in yellow.
4. Do not modify the structure of the Excel file, in particular do not insert or delete rows or columns (it is essential that the layout is not altered to allow the automatic extraction of responses).
5. **Send only the compiled Excel file** in response, by e-mail to [cnect-RSPG@ec.europa.eu](mailto:cnect-RSPG@ec.europa.eu).

If the respondent wishes to provide comments in free text, please note that the last question on each sheet of the questionnaire can be used for this purpose.

The questionnaire is structured in **five parts**, each dedicated to a specific stakeholder group.

Respondents are first invited to answer question Q0, indicating the stakeholder group most relevant to their area of interest. Next, respondents are asked to answer the questions in the sheet addressed to their chosen stakeholder group; however, they are free to answer any other questions in the other sheets if they consider them relevant to their interests.

The more extensive and accurate the information gathered, the more effective the RSPG report will be in outlining the picture of interests and providing useful input in shaping the future use of the band. We thank you in advance on behalf of the RSPG for your time and attention in completing the questionnaire.

**Deadline for responses:** 5 November 2024.

**Please send responses to:** [cnect-RSPG@ec.europa.eu](mailto:cnect-RSPG@ec.europa.eu)