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RADIO SPECTRUM POLICY GROUP

Opinion

on

Long-term vision for the upper 6 GHz band

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1 Introduction

1.1 Role of the RSPG

The role of the Radio Spectrum Policy Group (RSPG) is to assist and advise the European Commission on radio spectrum policy issues. This includes advice on the coordination of policy approaches, on the preparation of multiannual radio spectrum policy programmes and, where appropriate, on harmonised conditions with regard to the availability and efficient use of radio spectrum necessary for the establishment and functioning of the internal market. In particular, the RSPG "shall assist and advise the Commission […] where appropriate, on harmonised conditions with regard to the availability and efficient use of radio spectrum, necessary for the establishment and functioning of the internal market...".

Furthermore, "the Group shall assist Member States in cooperating with each other and with the Commission […] in support of the strategic planning and coordination of radio spectrum policy approaches in the Union, by: […] coordinating Member States' approaches to the assignment and authorisation of radio spectrum use and publishing reports and opinions on radio spectrum related matters".

1.2 Scope of this Opinion

The upper 6 GHz band (6425-7125 MHz) is subject to the diverse spectrum requirements from different industry stakeholders with interests in MFCN and WAS/RLAN – on the one hand, for high power licensed mobile use (MFCN), and on the other hand, for low power unlicensed WAS/RLAN. The incumbent services and applications in this frequency range, including their future needs, should be taken into account in the development of this opinion.

The incumbent services and applications are:

1) services **with primary status**, fixed service (FS), fixed satellite service (FSS) and mobile service (MS), and
2) those **below primary status**, radio astronomy (RAS) according to footnote RR 5.149 and Earth Exploration-Satellite Service (EESS), according to footnote RR. 5.458.

In the Work Programme for 2024 and beyond, the RSPG agreed on a work item aimed at providing a long-term vision for the upper 6 GHz band. This includes policy recommendations on how to best organise the future use of this band in Europe, with the goal to maximising its contribution to achieving the digital connectivity targets for Europe, as laid down in the Digital Decade Policy Programme 2030 (DDPP). The DDPP highlights the importance of connectivity infrastructure and sets political targets for 2030, including for the deployment of networks with gigabit speed. All end users at a fixed location should be covered by a gigabit network up to the network termination point, and all populated areas should be covered by a next-generation wireless high-speed network with performance at least equivalent to that of 5G.

In the context of technology neutrality, which is a guiding principle for digital connectivity infrastructure of the highest performance, resilience, security and sustainability, all types of communication technologies should be enabled to contribute to achieving gigabit connectivity. This includes current and upcoming advancements in fibre, satellite, MFCN, WAS/RLAN or other

future systems. All technologies and transmission systems capable of contributing to this digital target should be treated fairly and on the basis of their demonstrated capabilities and specific use cases.

Additionally, Article 45, fourth paragraph, of the Directive (EU) 2018/1972 ("European Electronic Communications Code"), provides the possibility to impose proportionate and non-discriminatory restrictions on the types of radio networks or wireless access technologies used for electronic communications services.

This opinion considers and assesses the future use of this band from a strategic and regulatory standpoint, balancing the protection, evolution, and development of incumbent services and applications, including those below primary status, while recognising the demonstrated potential of technologies to contribute to connectivity goals under appropriate sharing conditions. It is noted that scenarios under consideration, even if technically compatible, may not align with the policy objectives of all Member States. To establish a coordinated and uniform approach within the Union, this opinion provides recommendations for the future use of the band in support of Europe's digital connectivity.

Additionally, the opinion outlines the limits of national flexibility regarding the current incumbents' use of the band, taking into account the implications arising from national licensing conditions, non-interference requirements, and issues related to the free circulation of use. Recommendations should also be developed on how to address the protection and future development needs of incumbent services and applications.

1.3 Considerations

1.3.1 World Radiocommunications Conference (WRC)

WRC-23 adopted a new footnote RR 5.457E, according to which the frequency bands 6425 - 7125 MHz in Region 1 and 7025-7125 MHz in Region 3 are identified for use by administrations wishing to implement the terrestrial component of IMT. It is noted that these frequency bands are also used for the implementation of wireless access systems (WAS), including radio local area networks (RLANs). This identification preserves full flexibility for Europe to use IMT, RLAN or shared use. The ITU-R Resolution 220 (WRC-23), which addresses provisions for the protection of the existing services, applies.

Furthermore, the WRC-23 adopted Resolution 674 and Resolution 256, initiating studies for the WRC-27 respectively on:

a) the possible new global primary allocations to the EESS (passive) performing sea surface temperature (SST) measurements within the frequency bands 4.2-4.4 GHz and 8.4-8.5 GHz, without protection from existing services in these bands or in adjacent bands, in order to identify complementary bands to the upper 6 GHz band, where such measurements currently take place, and
b) technical, operational and regulatory issues, including sharing and compatibility with incumbent uses, pertaining to the possible use of the terrestrial component of IMT in the adjacent 7125-7250 MHz frequency band in all ITU Regions. This band offers a potential extension of the upper 6 GHz band for wireless broadband (MFCN) use. The 7750-

8400 MHz frequency band will also be studied for possible IMT identification for the WRC-27.

In this regard, the EU Member States took a negative position at WRC-23 on identifying spectrum for IMT in the 7-8 GHz frequency range due to strategic military use as well as other satellite and scientific usages.

1.3.2 RSPG work on 6G

In 2023 the RSPG has published an Opinion on "5G developments and possible implications for 6G spectrum needs" In the Annex 1 of that document the RSPG recognised that "there is likely to be a need for IMT to offer coverage and capacity in mid-bands. Additional mid-bands have not yet been identified. The upper 6 GHz is under consideration, noting the interest of both IMT and WAS/RLAN on this band.".[1]

In February 2025 the RSPG has published a Report on "6G Strategic vision"[2]. The RSPG studied the spectrum and network implications for the implementation of the six different usage scenarios defined by the ITU-R. The RSPG also indicated the possible frequency bands for 6G in Europe to be further investigated in preparation of the 6G spectrum roadmap.

RSPG recognised that cost-efficient urban coverage and capacity for some usage scenarios of IMT-2030, e.g. 'Immersive Communication' and 'AI and Communication', will require mid band spectrum supporting larger bandwidth and with similar radio properties as 3400-3800 MHz (coverage/capacity performance) enabling reuse of current base stations sites. The inputs from industry indicated that this spectrum need is 200 MHz for each MNO. Based on RSPG's assessment of possible frequency bands to fulfil this need, the 6425-7125 MHz band[3] seems to be the only option in the new mid band spectrum, due to the uncertainties related to the frequency bands studied in WRC-27 for IMT in Region 1.

The RSPG is currently developing a 6G spectrum roadmap, with the final interim Opinion expected to be published in 2026.

1.3.3 EC Mandate

Pursuant to Article 4(2) of the Radio Spectrum Decision[4], the Commission has issued on the 12 of December of 2024 a *Mandate*[5] *to the CEPT to study feasibility of and develop least restrictive harmonised technical conditions for the potential shared use of the 6425-7125 MHz frequency band for the provision of wireless broadband by terrestrial systems capable of providing wireless*

[1] https://radio-spectrum-policy-group.ec.europa.eu/document/download/fa8ec4bd-508c-4c8c-93b9-2ced4c7bedc6_en?filename=RSPG23-040final-RSPG_Opinion_on_5G_developments_and_6G_spectrum_needs.pdf

[2] https://radio-spectrum-policy-group.ec.europa.eu/document/download/89457260-ab6b-495a-9a10-437711cbe831_en?filename=RSPG25-006final-RSPG_Report_on_6G_strategic_vision.pdf

[3] Chapter 10 of RSPG Report on 6G Strategic vision

[4] Decision No 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision) (OJ L 108, 24.4.2002, p. 1).

[5] Radio Spectrum Committee issue a CEPT Mandate to the CEPT for the development of technical implementing measures

broadband electronic communications services and by wireless access systems, including radio local area networks.

The Mandate addresses in this context feasibility, sharing, coexistence and compatibility studies for the introduction of terrestrial systems capable of providing Wireless Broadband Electronic Communications Services (WBB ECS) and WAS/RLANs in the 6425-7125 MHz frequency band, while giving due account to existing uses (and their evolution and development) in the 6425-7125 MHz band and in the adjacent bands, including at the EU's external border, and the development of harmonised technical conditions based on a preferred (sharing) scenario.

The CEPT is entrusted with the following tasks.

- Task 1– Study and assessment of coexistence and compatibility of (i) terrestrial systems capable of providing WBB ECS with incumbent spectrum users and (ii) WAS/RLANs with incumbent spectrum users. (final results: March 2026)
- Task 2 – Study of feasibility and scenarios for the potential shared use[6] between terrestrial systems capable of providing WBB ECS and WAS/RLANs. (final results: November 2026)
- Task 3 – Development of harmonised technical conditions. (final results: July 2027)

In determining any preferred scenario(s) under task 2, the CEPT shall take due account of this RSPG Opinion on the upper 6 GHz band.

2 Usage of the upper 6 GHz band in EU

In Chapter 2 of these opinion the RSPG analyses:

- 2.1 Current usage
- 2.2 Possible developments
- 2.3 The overall assessment of the incumbent services and applications.

2.1 Current usage

2.1.1 Fixed Service

The 6425-7125 MHz frequency band is co-primary allocated to the fixed service in the Radio Regulations and is actively used for various fixed service applications.

Resolution 220 of WRC-23 recognises that studies have shown co-channel coexistence between IMT and the fixed service is possible, although it may require cross-border coordination between countries and site-by-site coordination if IMT and the fixed service are deployed in the same or adjacent geographical areas.

[6]The notion of "shared use" for the purpose of the Opinion should at least include the simultaneous use of the upper 6 GHz band, or portions thereof, by both systems in the same geographical area.

According to data provided for the developing of the ECC report 173, approved in June 2023, 20 European countries (including 16 EU Member States) operate a total of 12,554 links within the 6425-7125 MHz frequency range.

Several countries have reported their current links, including Lithuania with approx. 200 links, Sweden with approx. 1000 links, Italy with more than 2000 links, Germany below 5000 links, Czech Republic with approx. 170 links, Norway with approx. 1000 links, Finland with approx. 500 links, France with approx. 1800 links, Spain with approx. 1200 links (including 180 destined for emergency services) and Ireland with approx. 155 links in the upper 6 GHz range.

In contrast, some Member States have a very limited number of fixed links in the upper 6 GHz range, with Hungary reporting a complete lack thereof.

2.1.2 Fixed-Satellite Service

The 6425-7075 MHz frequency band is co-primary allocated to fixed-satellite service (FSS) in the uplink direction.

Resolution 220 (WRC-23) defines an expected e.i.r.p. mask applying to IMT base stations to protect FSS satellite reception. In addition, most satellites and earth stations operating in the satellite “C-band” over Europe use the core uplink FSS band 5925-6425 MHz paired with the downlink band 3700-4200 MHz.

The 6700-7075 MHz frequency band is co-primary allocated to fixed-satellite service (FSS) in the downlink direction for non-GSO MSS feeder links.

2.1.3 Mobile Service

The 6425-7125 MHz frequency band is co-primary allocated to mobile service in the Radio Regulations, but its current use for mobile service applications is very limited. For example, in some Member States, frequencies in the 7-8.5 GHz band are temporary authorised for video Programme Making and Special Events (PMSE) applications).

2.1.4 Radio Astronomy Service

Although there is no frequency allocation to RAS in this band, the RR footnote No. 5.149 urges Member States to take all practical steps to protect the RAS from harmful interference in the frequency band 6650-6675.2 MHz.

The 6650-6675.2 MHz frequency band is used for observations of the methanol spectral line, which is considered a milestone in studying star formation during its nascent phases. Observations of this spectral line are of primary importance to radio astronomers worldwide, with many radio telescopes equipped with receivers dedicated to this purpose.

Observations of the methanol spectral line can be conducted by individual observatories or through interferometer measurements. In Europe, several radio telescopes are linked together to form the

European Very Long Baseline Interferometry (VLBI) Network[7]. In particular the following observatories are part of this network and have receivers capable of operating within the 6650-6675.2 MHz frequency band, enabling them to observe the methanol spectral line:

- in Italy, observatories of Medicina (Emilia Romagna), Noto (Sicily), and SRT (Sardinia);
- in Latvia, observatory of Irbene;
- in The Netherlands, observatory of Westerbork;
- in Spain, observatory of Yebes;
- in Sweden, observatory of Onsala;
- in Germany, observatories of Effelsberg & Wettzell;
- in Finland, observatory of Metsähovi.

2.1.5 Earth Exploration Satellite Service

Although there is no frequency allocation to EESS the Radio Regulations (RR) recognize this usage by EESS in the footnote RR No. **5.458, which states:** "*Administrations should bear in mind the needs of the Earth exploration-satellite (passive) and space research (passive) services in their future planning of the frequency bands 6425-7075 MHz and 7075-7250 MHz.*". However, this recognition of usage does not guarantee rights for international protection.

Passive microwave sensor measurements for sea surface temperature (SST) measurements are carried out over the oceans, including the coastal areas in the frequency ranges 6425-7075 MHz and 7075-7250 MHz.
Several satellites are already in orbit and are carrying out measurements in this band, some other are planned. Measurements around 6 GHz offer the best sensitivity to sea surface temperature, though they include a small contribution from salinity and wind speed, which can be corrected using complementary measurements around 1.4 GHz and 10 GHz.

2.2 Possible developments and future spectrum demand for the band use

2.2.1 Fixed Service

The situation regarding possible developments of fixed service differs between Member States. Some Member States consider the radio links will remain important in the future for applications such as feeding of e.g. FM radio stations, digital terrestrial television stations, and mobile backhaul. Some administrations are particularly concerned when these applications are of importance to the national defence, for example, transmission for national backhauling for Public Protection and Disaster Relief (PPDR) networks; or for important public announcements (i.e., the emergency warning system used to alert the public in case of accidents, serious events, or disruptions of essential services) which are transmitted via national radio and terrestrial TV networks, as well as mobile networks.

[7] The European VLBI Network (EVN) is operated by the JIV-ERIC, an entity with the legal form of a European Research Infrastructure Consortium, pursuant to Council Regulation (EC) No. 723/2009 of June 25, 2009.

For example, the usage of the upper 6 GHz band for radio links in Sweden and Italy is extensive and is unlikely to decline in the near future, as no viable alternatives have been identified to replace the nationwide radio link networks. In fact, the number of links may increase.

The Czech Telecommunication Office (CTU) foresees the continued operation of fixed links beyond 2030. In a national study (link: https://ctu.gov.cz/en/study-spectrum), CTU explored potential actions in the event of reallocating the band from fixed links to MFCN/5G. The study concludes that migrating fixed links or repurposing the band would be highly challenging. Additionally, CTU examined legal and procedural measures, and issues related to potential economic compensation for existing users. It is estimated that a minimum of EUR 4 million (depending on the scenario) would be necessary to compensate fixed service users for vacating the band. Consequently, CTU does not plan to clear the spectrum from incumbents.

On the other hand, the use of upper 6 GHz frequency band for fixed radio links in Finland decreased from 700 to 500 during 2024 and Slovenia, from 14[8] to 9 (18 licenses)[9] and is expected to continue declining as applications for new links are directed to other frequency bands.

The reallocation of the fixed radio links from upper 6 GHz to the higher frequency band is currently under investigation in Lithuania, and no new links are being allocated in this band.

Furthermore, the ECC Report 173 indicates a total of 21012 active links in the frequency range 5900-7100 MHz with 12554 of them in the 6425-7125 MHz frequency range. Some administrations (Bulgaria, Croatia, Italy, Moldova, Netherlands, and Türkiye) reported an increasing trend in use, while others (Cyprus, France, and Germany) suggest a possible reduction. Stability is reported by several administrations, with Germany also mentioning potential reallocation. Slovenia notes possible coexistence with MFCN, and Sweden highlights of the sub-band strategic importance. Congestion is reported by some administrations (Bulgaria, Croatia, Serbia, Spain, Sweden, and Switzerland).

2.2.2 Fixed-Satellite Service

The Fixed Satellite Service remains important for satellite-based applications such as uplink MSS feeder links and downlink non-GSO MSS feeder links.

2.2.3 Mobile Service

The ITU-R M.2160-0 Recommendation, approved by the Radio Assembly in 2023, sets out the framework and overall objectives of the future development of IMT for 2030 and beyond. According to this Recommendation the motivation for the development of IMT-2030 is to continue to build an inclusive information society and contribute to the United Nations Sustainable Development Goals (SDGs), emphasizing inclusivity, connectivity, sustainability, innovation, security, standardization, and interoperability.

[8] ECC Report 173, version 27-04-2018, *ECCRep173-Band-by-band-analysis.xlsx* - https://docdb.cept.org/download/3971
[9] https://www.akos-rs.si/registri/seznam-registrov/frekvence

To meet capacity and coverage needs, multiple frequency ranges are required, as no single range satisfies all deployment criteria. The upper 6 GHz frequency band offer a balance between coverage and capacity.

In the past, new bands had been identified for each new mobile generation of IMT. Whether this should continue in the future needs further investigation.[10]

Despite challenges such as increased propagation loss compared to the 3.5 GHz band, the upper 6 GHz frequency band could potentially reuse existing cellular grids, supporting the introduction of macro-cellular 6G networks.

The upper 6 GHz band has attracted interest for WAS/RLAN due to its potential to utilize additional spectrum for licence-exempt devices.

2.2.4 Radio Astronomy Service

The measurement of the methanol spectral line is only possible at 6668.518 MHz. Therefore, the 6650-6675.2 MHz frequency band remains crucial for observations, essential for star formation studies.

2.2.5 Earth Exploration Satellite Service

The 6425-7250 MHz band is planned for the global use by the Copernicus Imaging Microwave Radiometer (CIMR), one of the six high-priority candidate missions of the Copernicus programme. This mission would enhance the programme's ability to support the EU Green Deal objectives, particularly in addressing climate change.

WRC-27 will consider a possible co-primary EESS allocation in the 4.2- 4.4 GHz and 8.4-8.5 GHz frequency bands to provide additional possibilities for sea surface temperature (SST) measurements and the necessary regulatory protection.

2.3 The overall assessment of usage of the upper 6 GHz band

2.3.1 Fixed Service

For some Member States, the continued use of the band for radio links remains highly important such as feeding FM radio stations, digital terrestrial television stations, and mobile backhaul. Therefore, any scenario to introduce new services in the upper 6 GHz band should consider that some Member States require long-term access to this band for fixed services, whether nationwide or in specific geographic areas.

Where feasible, Member States may consider refarming the band for mobile service applications by migrating fixed service applications to other frequency bands. Alternatively, where practicable, Member States may consider reducing fixed service use by limiting fixed service applications to specific geographic areas or to certain frequency ranges within the upper 6 GHz.

[10] https://radio-spectrum-policy-group.ec.europa.RSPG25-006final-RSPG_Report_on_6G_strategic_vision.pdf

Fibre connections may also reduce the need for point-to-point (P-P) links, potentially leading to decreased use of the band for fixed links in some countries.

Given these considerations and further taking into account Member States where refarming of the band for mobile service applications is anticipated, bi- or multi-lateral agreements would likely be necessary to ensure the protection of fixed links in neighbouring States where their continued deployments and operation remain essential.

2.3.2 Fixed-Satellite Service

Any sharing scenario proposing the introduction of new services in the upper 6 GHz band need to ensure long term access to this band for fixed satellite services, as invited by Resolution 220 (WRC-23). This is crucial to maintain the integrity and functionality of fixed satellite services.

2.3.3 Mobile Service

The introduction of new mobile service applications in the upper 6 GHz frequency band should be consistent with potential future decisions by the European Commission. A clear framework should be established to guide the introduction of these services, ensuring compliance with regulatory requirements.

2.3.4 Radio Astronomy Service

Any sharing scenario proposing the introduction of new mobile services applications (WAS/RLAN or MFCN) in the upper 6 GHz band need to ensure the protection of the radio astronomy observations, taking into account that, (1) due to the intrinsic physical properties of the phenomenon, emissions from the methanol spectral line can occur only within the 6650-6675.2 MHz frequency band, and (2) there is also a need to protect this core RAS band from unwanted emission of users in adjacent bands.

The WRC-23 studies from CRAF on the use of IMT indicate an in-band separation distance of 400-500 km and appr. 200 km in the adjacent bands. These studies did not consider terrain factors and assumed different power levels. Therefore, CEPT is studying further the coexistence between MFCN and RAS under Task 1 of the EC Mandate, and reviewing the issue of adequate separation distance including requirement to WAS/RLAN and MFCN for their respective operation in the band.

2.3.5 Earth Exploration Satellite Service

Studies submitted to ITU-R indicated that SST measurements by satellite in the frequency range 6425-7125 MHz could be significantly degraded in the coming years, depending upon the application, due to the amount of interference from the foreseen increased usage, high power licensed mobile use (MFCN) or low power unlicensed WAS/RLAN use, under the existing mobile allocation.

SST is a vital component of climate system, as it exerts a major influence on the exchange of energy, momentum and gases between the ocean and the atmosphere. SST largely controls the

atmospheric response of the ocean to meteorological and climatic time scales. Continuous measurements are crucial to ensure the protection of populations from major climatic events.

SST measurement by satellite, in the microwave domain, remains the only method enabling daily and global SST observations, independent of meteorological conditions (i.e. the presence of clouds). Although the 6425-7250 MHz band remains the most sensitive for these measurements, they could be achieved using additional frequency bands that offer a similar response to SST and a favorable interference environment.

Therefore, in order to achieve this continuous SST measurement on a long-term basis, WRC-23, under the WRC-27 Agenda item 1.19, resolved to invite the ITU Radiocommunication Sector to complete in time for the 2027 World Radiocommunication Conference sharing and compatibility studies to determine the possibility of a future allocation to the EESS (passive) of complementary frequency bands in the frequency ranges 4200-4400 MHz and 8400-8500 MHz without protection from existing services in these frequency bands and in adjacent bands and invites administrations to participate actively in the studies and provide the information required for WRC-27 EESS (passive) allocation, in accordance with Resolution 674 (WRC-23).

3 Questionnaire and the public consultation on the Long-term vision for the upper 6 GHz band

Questionnaire:

Between 8 July 2024 and 20 August 2024, the RSPG conducted a questionnaire on the long-term vision for the upper 6 GHz band[11]. Stakeholders were invited to outline the expected demand for MFCN or WAS/RLAN in this band before and beyond 2030, along with an evaluation of its environmental and socio-economic sustainability.

The RSPG welcomed the 49 responses received from a broad and diverse range of stakeholders representing the majority of services with an interest in the upper 6 GHz band. All non-confidential responses are published on the RSPG website:

https://radio-spectrum-policy-group.ec.europa.eu/document/download/58f40db3-ce1a-4a22-bdfb-1bbccb21b2bc_en?filename=responses_questionnaire-U6GHz-rev1.zip

Public consultation on the draft opinion:

The draft Opinion has been subject to a public consultation in order to increase transparency and allow participation of all stakeholders. The public consultation on the draft opinion on the long-term vision for the upper 6 GHz band was held from 20 June 2025 and 31 August 2025. The RSPG welcomed the 50 responses received from a broad and diverse range of stakeholders representing the majority of services with an interest in the upper 6 GHz band. Three responses were submitted as confidential. The RSPG appreciates all the valuable contributions and comments which were considered when finalising this Opinion. For more information on the public consultation responses see the RSPG website, https://radio-spectrum-policy-group.ec.europa.eu/consultations-0_en.

[11] Questionnaire on the Long-term vision for the upper 6 GHz band

4 RSPG evaluation of spectrum demand

Based on information collected from various stakeholders[12], RSPG has identified several aspects.

4.1 Key factors driving spectrum demand for MFCN

The RSPG expect that with 6G, advanced usage scenarios will emerge[13], enabled by technologies such as artificial intelligence, integrated sensing and communication (ISAC), and capabilities that go beyond those of 5G. Potential 6G application areas range from supporting extremely high data rates for immersive virtual reality (VR) and augmented reality (AR) to advanced applications in fields such as the Internet of Things (IoT), autonomous driving, and telemedicine. The increasing adoption of, digital twins, and real-time industrial automation, will further drive demand for reliable, high-capacity and high-mobility wireless connectivity, ultra-low latency supported by e.g. edge computing. Smart city infrastructures, enhanced public safety networks, and next-generation satellite-terrestrial integration will also require additional spectrum resources.

Furthermore, future networks will need to accommodate new forms of massive machine-type communications (mMTC). All these new use cases will intensify the need for spectrum.

MNOs have outlined the future spectrum demand driven by the continuously increasing data transmission volumes.

4.2 Options to fulfil that future capacity and coverage demand for MFCN

The RSPG is of the opinion that to meet the growing MFCN demand the following main options could be considered:

1. **Spectrum Refarming, Determination and Harmonisation**
    - **Refarming Existing Bands:** Transitioning currently used MFCN bands to support newer mobile generations.
    - **The increased usage of already harmonised mmWave spectrum:**
        1. 26 GHz
        2. 42 GHz
        3. 57-71 GHz (unlicensed)
    - **Determining and harmonising new spectrum:**
        1. UHF band, such as 600 MHz
        2. Upper 6 GHz band
        3. Possible THz bands
2. **Technological Advancements to improve spectrum efficiency**

[12] All information can be found in A (Annex - Summary of responses to the questionnaire)

[13] RSPG Report "6G Strategic vision" section 4 "Drivers and enablers for 6G", Rec. ITU-R M.2160, Framework and overall objectives of the future development of IMT for 2030.

- **Advanced Modulation Techniques:** Implementing more efficient modulation schemes to maximize the use of available spectrum.
- **MIMO:** Utilizing massive/advanced multiple-input multiple-output (MIMO) technology to increase capacity and coverage.
- **AI and Machine Learning:** Leveraging artificial intelligence and machine learning for dynamic spectrum management and network optimisation.

3. **Infrastructure Enhancements**
   - **Dense Network Deployment:** Increasing the density of small cells and base stations where feasible, to enhance network capacity and coverage.
   - **Fibre Backhaul:** Expanding fibre optic networks to support the high data throughput required by 6G.
4. **Regulatory and Policy Measures**
   - **Incentives for Innovation**: Providing incentives for Innovation
     1. Upgrade to newer mobile generations
     2. A fast 6G roll-out
     3. Promoting implementation of interworking solutions
5. **Spectrum Sharing:**
   - **Implementing Spectrum Sharing Techniques:** Allow multiple mobile applications to coexist in the same frequency band by using
     1. Sensing and avoiding mechanism
     2. Indoor-Outdoor separation
     3. Geographical separation
   - **Spectrum sharing to improve coexistence with the incumbents:** To protect existing radio services and applications
     1. Geographical separation
     2. Frequency separation
     3. Time separation
     4. Other mitigation techniques
6. **Solutions for interworking between MFCN and WAS/RLAN:**
   - Offloading the indoor mobile traffic to WAS/RLAN by leverage MFCN Core functionalities[14]:
     1. Non-3GPP Interworking Function (N3IWF)
     2. Trusted Non-3GPP Gateway Function (TNGF)
     3. Evolved Packet Data Gateway (ePDG) to support Voice over Wi-Fi (VoWiFi)
   - Improve seamless authentication between MFCN and WAS/RLAN by implementing frameworks and standards such as:
     1. Passpoint[15] & Hotspot 2.0
     2. OpenRoaming[16]

[14] ETSI TS 123 501 V16.6.0 (2020-10) 5G; System architecture for the 5G System (5GS) (3GPP TS 23.501)
[15] https://www.wi-fi.org/discover-wi-fi/passpoint
[16] https://wballiance.com/openroaming

4.3 Role of the upper 6 GHz band to fulfil future capacity and coverage demand for MFCN

The Digital Decade Policy Programme 2030 supports the development of Europe's future data infrastructures which is required to support the digital sovereignty, competitiveness and sustainability of the Union's industry and economy.

In this respect the RSPG considers that the upper 6 GHz band (6425-7125 MHz) potentially plays an important role to fulfil the future MFCN demand. This band offers several benefits, in particularly for urban suburban coverage using the 3600 MHz grid and other high traffic areas.

1. **Spectrum Availability:**
    - The upper 6 GHz band provides a significant amount of contiguous spectrum that can be utilized for high-capacity services.
    - The upper 6 GHz band is the only new mid-band to support the introduction of 6G in Europe, offering wider channels.
2. **Balance between Coverage and Capacity:**
    - The propagation characteristics of the upper 6 GHz band strike a balance between coverage and capacity, making it suitable for both urban and suburban deployments.
3. **Support for Advanced Use Cases:**
    - The band can support advanced use cases such as high-definition video streaming, AR/VR applications, and real-time industrial automation.

In conclusion, the future demand for MFCN can be met through a combination of additional spectrum, spectrum refarming, technological advancements, infrastructure enhancements, and regulatory measures. The upper 6 GHz band can play an important role in this ecosystem, providing the necessary spectrum resources to support the next generation of mobile communications.

4.4 Key factors driving spectrum demand for WAS/RLAN

The RSPG is of the opinion that the demand for Wireless Access Systems, including Radio Local Area Networks (WAS/RLAN), is expected to grow significantly in the coming years. This growth is driven by the increasing reliance on wireless connectivity for various applications, including home and enterprise networking, public Wi-Fi, and the Internet of Things (IoT) and the proliferation of data-intensive applications, such as high-definition video streaming, online gaming, and cloud-based services.

4.5 Options to fulfil the WAS/RLAN Demand

To meet the WAS/RLAN demand, the following options can be considered:

1. **Spectrum refarming and determination:**
    - **Determining and harmonising new spectrum**
        - Upper 6 GHz band

- IEEE 802.11bq project[17] was approved by IEEE in Dec. 2024 targeting non-standalone Wi-Fi within the 42-57 GHz.
- **Use of already harmonised spectrum**
  - 2.4 GHz, 5 GHz and lower 6 GHz
  - 57-71 GHz harmonised band for wideband data transmission devices according Decision (EU) 2025/105[18]. IEEE 802.11bq is targeting non-standalone Wi-Fi within the 57-71 GHz range, which may further enhance the performance and usability of the band.

2. **Technological Advancements:**
   - **Advanced Modulation Techniques**: Implementing more efficient modulation schemes to maximize the use of available spectrum.
   - **Multi-Link Operation (MLO)**: Simultaneous use of 2.4 GHz, 5 GHz, 6 GHz frequency bands to increase reliability of the connection between AP and terminals, and lower latency.
   - **Enhanced Multi-User MIMO:** Enabling simultaneous communication with multiple devices
   - **Multi-Access Point Coordination (MAPC)**: Which will build upon the network management improvements of previous generations of Wi-Fi to avoid interference and ensure efficient communication between the client devices and the network removing current quality of service limitations, particularly around latency, related to inter AP interference.
3. **Infrastructure Enhancements:**
   - **Dense Network Deployment**: Increasing the density of access points
   - **Fibre-to-the-room**: Expanding fibre optic networks.
4. **Regulatory and Policy Measures:**
   - **Incentives for Innovation**: Providing incentives for Innovation
     - Upgrade Access Points to latest technologies
5. **Spectrum Sharing:**
   - **Implementing Spectrum Sharing Techniques:** Allow multiple services to coexist in the same frequency band by using
     - Sensing and avoiding mechanisms
     - Indoor-Outdoor separation
     - Geographical separation
     - Location-aware mechanisms, including database solutions
   - **Preamble Puncturing:** Exclusion of sub-channels to protect other services (e.g. for RAS in the absence of location awareness or geographical separation)
6. **Interworking:**
   - MNO implementation of a seamless secured roaming between Wi-Fi and mobile networks.

[17] https:/standards.ieee.org/ieee/802.11bq/11872/
[18] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202500105

It is important to note that most measures will inevitably require the replacement of Wi-Fi access points and routers, which will incur some costs.

4.6 Role of upper 6 GHz Band to fulfil future WAS/RLAN demand

The RSPG is of the opinion that the upper 6 GHz band potentially plays an important role to fulfil the future WAS/RLAN demand and meeting Europe's future goals for connectivity and competitiveness. as it offers a large contiguous block of spectrum that can support high-capacity, low-latency wireless local access. It also supports Europe's future connectivity and competitiveness goals as outlined in the Digital Decade Policy Programme 2030[19]. This band is well suited, for handling the increasing data traffic and using additional channels with larger bandwidths.

The upper 6 GHz band (6425-7125 MHz) can play an important role to fulfil the demand for WAS/RLAN. This band offers several advantages:

1. **Spectrum Availability**:
    - The upper 6 GHz band provides a significant amount of contiguous spectrum that can be utilized for high-capacity WAS/RLAN and can be combined with the lower 6 GHz band (5945-6425 MHz) to provide additional wider channels.
2. **Balance of Coverage and Capacity**:
    - The propagation characteristics of the upper 6 GHz band allow coverage within buildings even through walls.
    - The upper 6 GHz would provide additional non-overlapping 80 MHz and 160 MHz channels, facilitating WAS/RLAN access point planning in environments such as schools and hospitals and reduce the channel occupancy time. It would also enable additional 320 MHz channels, which can enhance capabilities such as sub-meter positioning[20].
3. **Support for Advanced Use Cases**:
    - The larger bandwidth 320 MHz can support advanced WAS/RLAN use cases such as Holographic Applications, AR/VR and online gaming for AR/VR application.

In conclusion, the future demand for WAS/RLAN can be met through a combination of spectrum identification, technological advancements, infrastructure enhancements, and regulatory measures. The upper 6 GHz band can play an important role in this ecosystem, providing the necessary spectrum resources to support the next generation of wireless access systems and can use existing chipset of the market.

[19] Digital Decade Policy Programme - Article 4 (2) (a) all end users at a fixed location are covered by a gigabit network up to the network termination point, and all populated areas are covered by next-generation wireless high-speed networks with performance at least equivalent to that of 5G

[20] https://standards.ieee.org/ieee/802.11bk/11117/

4.7 Possible MFCN and WAS/RLAN shared use

CEPT has developed ECC Report 366 *on the feasibility of a potential shared use of the 6425-7125 MHz frequency band between MFCN (5G/6G) and WAS/RLAN*.

One of the main conclusions of this ECC report is that shared use between full power MFCN and WAS/RLAN LPI operating on the same channel is not possible without negative consequences for WAS/RLAN and MFCN spectrum access and user experience. A reduction of MFCN BS e.i.r.p. by about 25 dB (57 dBm) was studied in order to enable indoor WAS/RLAN operations and outdoor MFCN base stations in the same geographical area. Several studies and trials indicate that reduced MFCN BS e.i.r.p. levels will negatively impact the MFCN coverage and capacity when using the existing outdoor macro base station grids, leading to limited indoor coverage. Some studies indicated little to no impact on outdoor coverage/capacity, while others indicated significant reduction in outdoor capacity/coverage in the upper 6 GHz band.

A number of studies specifically examined the probability of WAS/RLANs successfully detecting the presence of MFCN signals using the existing WAS/RLAN energy detection mechanism based on Wi-Fi technical standards. None of these studies indicated that WAS/RLANs would be able to detect MFCN signals in all indoor locations, to implement a functionality fully sufficient to avoid interference.

In addition to the current energy detection mechanism, three new detection techniques to improve the detection of MFCN signals by WAS/RLAN equipment have been explored in order to reduce interference from MFCN to WAS/RLAN and implement the MFCN priority mechanism in scenarios where WAS/RLAN is not the prioritised user. The ECC Report 366 highlights the complexity of practical implementation of such detection techniques.

All potential detection techniques would require further work with development, standardisation, harmonisation and compliance testing.

4.8 Summing-up

Mobile/Fixed Communications Networks (MFCN)

There is a rapid increase in the absolute data traffic over mobile networks over the past two decades. However, the percentage increase rate has been declining. Data traffic continues to grow strongly in absolute incremental terms[21]. The RSPG expect that the demand for more MFCN spectrum is likely to occur around 2030 with the launch of new application in the 6G MFCN networks. The upper 6 GHz band could help address some of the expected future capacity needs as outlined by the Mobile Network operators.

Mobile stakeholders indicated in the upper 6 GHz questionnaire and in the input to the RSPG 6G strategic vision that the upper 6 GHz band is essential for the deployment of 6G services using macro-base stations with the same macro base station deployment grid (e.g. the 3.6 GHz band) and that 200 MHz for each operator with conditions that allow deployment with standard macro base station power levels are needed in this band. Furthermore, according to mobile stakeholders, citizens and industrial users would benefit from more competitive offers resulting from cost

[21] Ericsson Mobility Report

effective deployments if operators will have the possibility to deploy the upper 6 GHz band using the same infrastructure already established for the 3.6 GHz band.

MFCN coverage in the upper 6 GHz band is not expected to be continuous in rural areas. Base stations in rural areas are expected to be few in number and will be isolated installations at specific locations. Additionally, future capacity needs for MFCN in localised areas could also be partially accommodated by other frequency bands like mmW-bands, through mobile network densification or interworking[22] (e.g. offloading of indoor traffic) with WAS/RLAN.

Band 7125–7250 MHz as part WRC-27 Agenda Item 1.7

Studies are foreseen under Agenda item 1.7 on the potential IMT identification in the frequency range 7125-7250 MHz. For the time being, it remains undecided whether and to what extent this band could serve as a possible extension of the 6 GHz for MFCN usage, given the need to protect EESS (E-s) and SRS (E-s) which have characteristics substantially different from GSO FSS satellite in the 6 GHz band.

Wireless Access Systems and Radio Local Area Networks (WAS/RLAN)

The vast majority of indoor data traffic today is carried by WAS/RLAN to the end-user equipment. Data traffic continues to grow strongly in absolute incremental terms[23]. The upper 6 GHz band could help address some of the expected future capacity needs as outlined by the WAS/RLAN industry by providing additional non-overlapping 80 MHz and 160 MHz channels, facilitating WAS/RLAN access point planning in in environments such as schools and hospitals. It would also enable more 320 MHz channels, which can enhance capabilities such as sub-meter positioning.

The additional capacity requirements for WAS/RLAN could also be partially addressed through densification of access points or by leveraging mmWave bands with the next generation of Wi-Fi. The WAS/RLAN industry indicated in the upper 6 GHz questionnaire that additional spectrum for WAS/RLAN would strengthen investments in multigigabit infrastructure and provide capacity for potential access to the evolution of fibre networks such as XGS-PON[24].

4.9 Impact of spectrum sharing with incumbent users

Sharing studies with incumbent users are being conducted by CEPT under EC Mandate Task 1.

Fixed Service (FS)

The fixed service remains an essential technology in several Member States for communications infrastructure, such as provision of services in rural areas and for specific applications such as broadcasting and mobile backhaul. In addition, in some Member States, fixed links belong to critical infrastructure.

[22] See chapter 4.2 Solutions for interworking between MFCN and WAS/RLAN
[23] https://www.analysysmason.com/research/content/regional-forecasts-/fixed-network-data-rdfi0-rdmb0/
[24] ITU-T G.9807.1: 10-Gigabit-capable symmetric passive optical network (https://www.itu.int/rec/T-REC-G.9807.1/en)

Low-power indoor WAS/RLANs appear to pose fewer constraints for Fixed Service than outdoor mobile use (MFCN) for which further studies are currently being conducted by CEPT under EC Mandate Task 1.

A flexible, shared use of the band could be pursued, subject to coordination measures to be studied under EC Mandate Task 1. This would allow countries to support both the fixed service and mobile applications (MFCN and WAS/RLAN) as needed. At the same time, the transition from radio links to alternative technologies such as fibre, or migration of FS links to other bands when possible, could be considered.

Fixed-Satellite Service (FSS)

The fixed-satellite service in the upper 6 GHz band is essential, especially for mobile-satellite-based uplink and downlink feeder links. The protection and safeguarding of uplink FSS operations is ensured by adherence to the expected e.i.r.p. mask defined by WRC-23, which is obligatory in accordance with RR5.457E Resolution 220 (WRC-23)[25].

In areas with potential interference to FSS downlink earth stations, MFCN operations should be carefully regulated and limited to exclude specific geographical areas.

Radio Astronomy (RAS)

The methanol spectral line is unique for studying star formation and is crucial for the European VLBI [26]Network. Given the fixed nature of the Radio Astronomy Service sites in the frequency band 6650- 6675.2 MHz adequate protection should be maintained when introducing new MFCN or WAS/RLAN. An accurate coexistence analysis based on mutually agreed methodologies is required that provides the basis for deriving adequate and sustainable co-existence conditions. A European coordination framework including these elements is essential to support scientific progress in radio astronomy while enabling balanced spectrum use.

Earth Exploration Satellite Service (EESS)

The Earth Exploration Satellite Service, especially the measurement of sea surface temperature in the upper 6 GHz band, is vital for climate monitoring and protection against extreme weather events. It is also crucial for the Copernicus Imaging Microwave Radiometer (CIMR), one of the six high-priority candidate missions of the Copernicus programme. However, the introduction of high-density mobile service application (MFCN) and WAS/RLAN in the in the frequency range 6425-7125 MHz could progressively increase interference with these observations, depending on the specific application. To ensure continuous long-term sea surface temperature (SST) measurements, studies are being conducted under WRC-27 Agenda Item 1.19 to consider new primary EESS (passive) allocations in the 4.2-4.4 GHz and 8.4-8.5 GHz frequency bands, complementing the 6425-7250 MHz band. The 6425-7250 MHz band offers the highest sensitivity

[25] **5.457E** The frequency bands 6 425-7 125 MHz in Region 1 and 7 025-7 125 MHz in Region 3 are identified for use by administrations wishing to implement the terrestrial component of International Mobile Telecommunications (IMT). This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. Resolution **220 (WRC-23) a**pplies.

[26] Very-long-baseline interferometry

for these observations and will continue to be used, operating as an application of non-primary service, for SST measurements despite the possible allocation of new frequency bands to EESS and the global interference from IMT and WAS/RLAN.

Ultra-Wideband (UWB)

UWB applications operate on a non-interference and non-protected basis[27].

WAS/RLAN below 6425 MHz

The continuous operation of WAS/RLANs in the adjacent lower 6 GHz band (5945-6425 MHz) needs to be ensured, in accordance with the harmonised technical conditions defined in Commission Decision (EU) 2021/1067.

[27] COMMISSION IMPLEMENTING DECISION (EU) 2024/1467

5 RSPG recommendation on the upper 6 GHz band

As outlined in this opinion, the current usage and future spectrum needs in the upper 6 GHz band vary across Member States. This divergence is expected to persist beyond 2030 within the EU. Consequently, establishing a unified approach for all Member States in the near future appears challenging, primarily due to differing national spectrum requirements.

Given these circumstances and the increasing spectrum demands in the upper 6 GHz band, the RSPG has explored the following options for the additional introduction of MFCN and WAS/RLAN in this band.

Full band options:

1. Entire upper 6 GHz band for WAS/RLAN.
2. Entire upper 6 GHz band for MFCN.

Band split options:

3. Band split:

   Each application has access only to its designated portion of the upper 6 GHz band.

4. Segmented band split:

   Each application has access to its designated portion of the upper 6 GHz band and, with specific restrictions, to a third shared portion within the upper 6 GHz band. In the shared segment, neither WAS/RLAN nor low power MFCN have priority, and both could potentially operate concurrently.

5. Prioritised band split:

   Each application would have non-prioritised access to the portion of the band assigned to the other application, if it does not cause harmful interference to the other application.

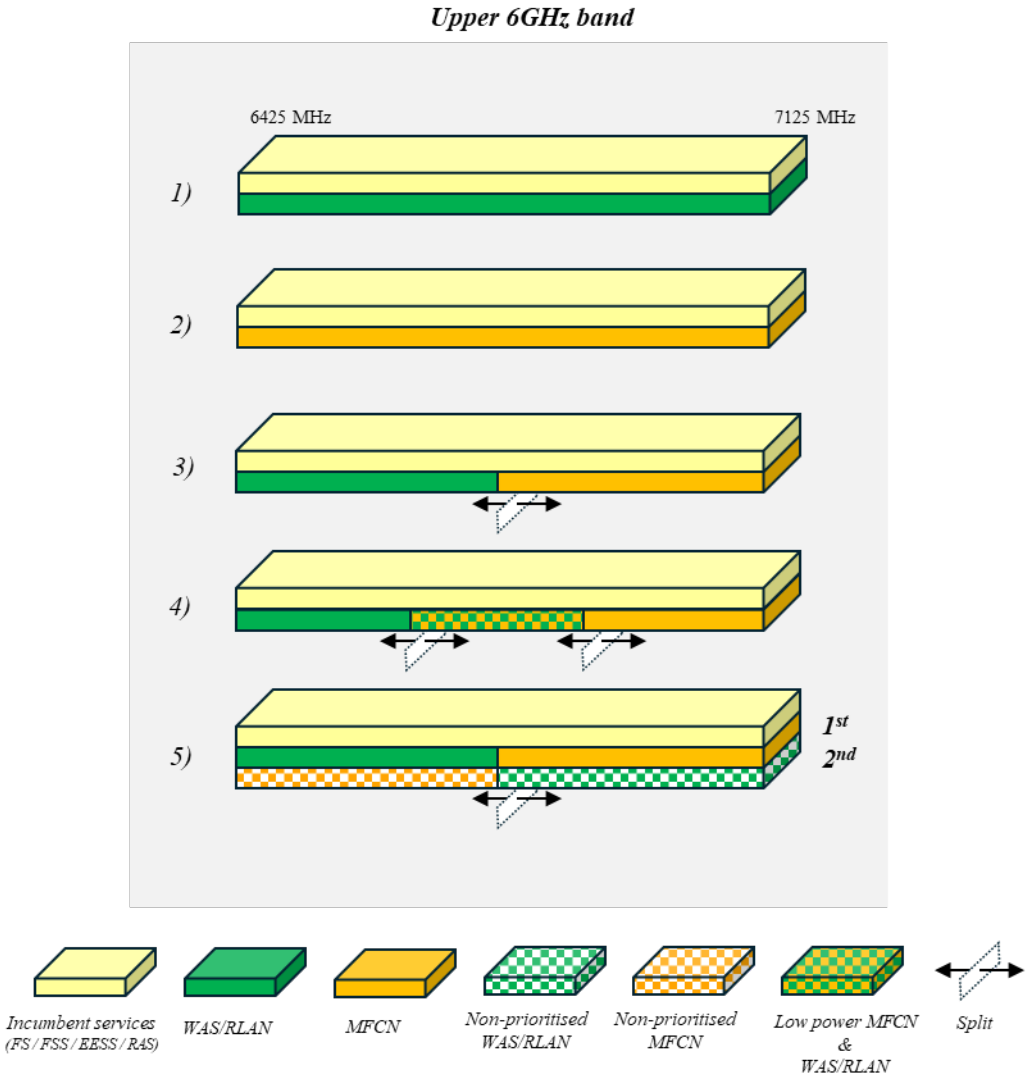

Figure 1 - Possible long-term usage scenarios between MFCN and WAS/RLAN

The RSPG has formulated the following recommendations to provide strategic guidance for Member States, contribute to ongoing efforts within CEPT and ETSI with the goal to develop harmonised technical conditions for the future usage and support the development of the European 6G spectrum roadmap. The recommendations hereafter have been carefully developed after assessing the above different approaches to utilizing the upper 6 GHz band alongside existing incumbent services (FS, FSS, EESS, and RAS):

5.1 Considerations on the current usage

1. RSPG notes the diverse spectrum requirements for both new and existing services across Member States. It also recognises the importance for certain Member States to address the spectrum needs of current users[28] in the upper 6 GHz band, including FS, FSS and RAS, beyond 2030.
2. RSPG emphasises that achieving harmonised technical conditions for the use of MFCN and WAS/RLAN in the upper 6 GHz band across Europe is a key objective. Member States should seek ways to support this goal while considering incumbent needs.
3. RSPG notes the competing interest for access to the upper 6 GHz band from different industry stakeholders, particularly those focused on MFCN and WAS/RLAN.
4. RSPG recommends a flexible use of the band in terms of allowing countries to maintain existing fixed service usage while supporting additional mobile applications (MFCN and WAS/RLAN) as needed.
5. RSPG notes that the protection and safeguarding of uplink FSS operations shall be ensured by a compliance of MFCN BS to the expected e.i.r.p. mask which has been adopted by WRC-23. Noting that there is a limited number of FSS downlink earth stations, the RSPG is of the view that Member states should protect them.
6. RSPG is of the view that an adequate protection should be ensured to the Radio Astronomy Service sites in the frequency band 6650- 6675.2 MHz.
7. RSPG underscores the importance of primary allocations in all Regions to the Earth exploration-satellite service (passive) in the frequency bands 4200-4400 MHz and 8400-8500 MHz, in accordance with Resolution 674 (WRC-23) for measuring the sea surface temperature to complement the upper 6 GHz band measurements.

5.2 Recommendations on development of use

1. RSPG sees no immediate significant spectrum needs for MFCN or WAS/RLAN in Europe, as the lower 6 GHz band for WAS/RLAN and the mobile spectrum in other MFCN bands are not yet fully utilized.
2. RSPG notes the mid to long term demand from different industries to access the upper 6 GHz band, on the one hand for WAS/RLAN and, on the other hand for MFCN.
3. RSPG is of the opinion, that, although the spectrum needs for MFCN and WAS/RLAN in the upper 6 GHz band are not evidentially immediate, a clear direction of the future use of this band should be indicated well before 2030 in order to give certainty to industries.
4. RSPG recommends that future EU regulatory actions should facilitate, to the greatest and most expedient extent feasible, the envisaged shared usage of the upper 6 GHz band in providing maximum long-term societal benefits.
5. RSPG recommends that Member States be afforded flexibility not to award spectrum where no demand arises for MFCN in the band.

[28] The band 6425-7250 MHz will also continue to be used beyond 2030 for EESS measurements, in spite of the lack of regulatory protection, because this is the band where the most accurate measurements are obtained

5.3 Policy recommendations on a band split with prioritisation within the upper 6 GHz.

1. RSPG is of the view that, as a scarce resource, the available spectrum should be utilized as efficiently as possible. Consequently, sharing options need to be explored and implemented provided they are practical and offer adequate planning security.
2. RSPG emphasises that consideration of spectrum sharing is of key importance in this band in the sense that incumbents, MFCN and WAS/RLAN could all potentially access the upper 6 GHz band, on the basis that technical studies or national decisions support this possibility, thus maximising the benefits for European society.
3. Considering different interests for spectrum access to the upper 6 GHz band RSPG took into account the following key elements:
   a. fostering exploitation of sharing potential;
   b. protection of RAS and other incumbent services as appropriate.
4. Before the public consultation the RSPG has considered several options (0 MHz, 80 MHz, 160 MHz or 320 MHz) for the prioritised band split.
5. Having considered the responses to the public consultation and the preferences expressed by Member states, the RSPG has agreed a prioritised use of the band 6585-7125 MHz for MFCN.
6. For the 6425-6585 MHz the RSPG has agreed to use this as a guard band (together with a BEM applicable to MFCN in the 6585-7125 MHz) to protect WAS/RLAN in the lower 6 GHz band (5945-6425 MHz) until the WRC-27 which may identify the additional band 7125-7250 MHz for IMT. Member States will not release the band neither for MFCN nor for WAS/RLAN.
7. Following the WRC-27, RSPG intends to decide on the exact use of the 160 MHz (6425-6585 MHz).
8. If WRC-27 identifies the 7125–7250 MHz band for IMT and no significant new developments or insights suggest otherwise, there is a strong case for designating the 6425–6585 MHz band for primary WAS/RLAN use.
9. If WRC27 does not identify the 7125–7250 MHz band for IMT and no significant new developments or insights suggest otherwise, there is a strong case for designating the 6425–6585 MHz band for primary MFCN use.

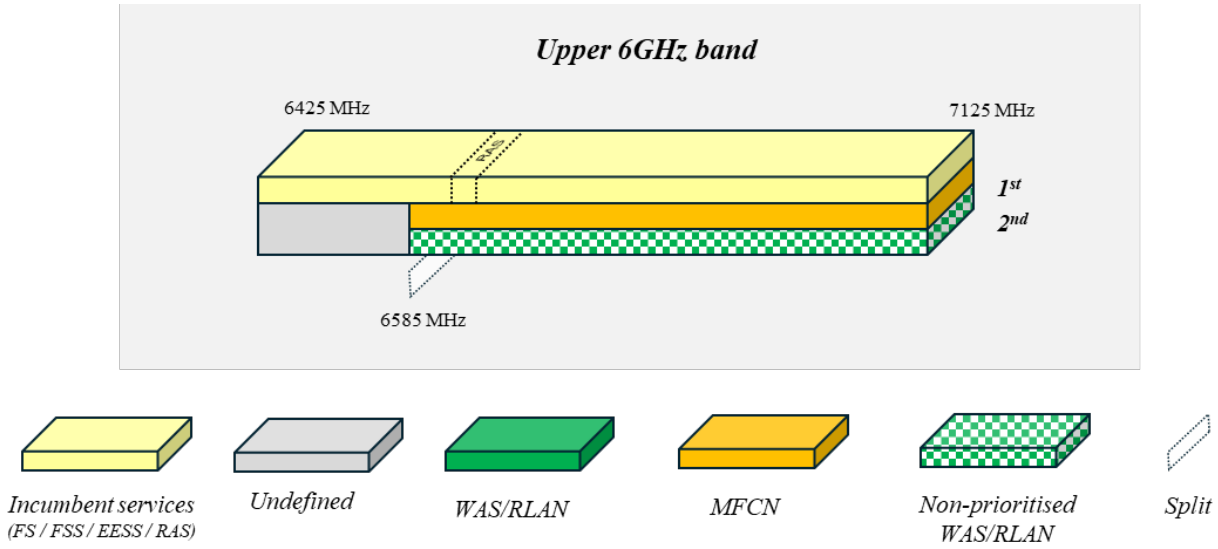

Figure 2: Prioritised band split 6585-7125 MHz for the MFCN

6585-7125 MHz

- RSPG recommends a prioritised use for full power MFCN.
- RSPG recommends that CEPT investigates the non-prioritised WAS/RLAN usage within this full power MFCN segment, ensuring that such operation does not cause harmful interference to MFCN.
- CEPT should, within the scope of the EC Mandate (Task 1 and Task 2), study protection of WAS/RLAN in the frequency band 5945-6425 MHz.

10. RSPG recommends that, in countries with radio astronomy (6650- 6675.2 MHz) or with MFCN stations operating within the coordination zone, there will be a need to ensure protection of RAS by coordinating MFCN usage in this and in adjacent bands.
11. The RSPG is of the view that this scenario could be the basis for an EC implementing decision following the mandate from EC to CEPT limited to the frequency band 6585-7125 MHz. CEPT has not yet completed its assessment of the technical possibilities and limitations related to sharing and coexistence, therefore the non-prioritised operation is dependent on the feasibility of such mechanisms.

5.4 Further on the upper 6 GHz band

1. RSPG recognises the need to ensure continuous operation of WAS/RLANs in the adjacent lower 6 GHz band (5945-6425 MHz) in accordance with the harmonised technical conditions defined in Commission Decision (EU) 2021/1067.
2. RSPG encourages the mobile industry to develop products for the entire upper 6 GHz band.
3. RSPG acknowledges that CEPT should assess and further develop solutions based on the recommendations given in this Opinion regarding, among others:
   a) provisions for the protection of RAS from MFCN and WAS/RLAN use;

b) the necessary technical conditions to enable coexistence between MFCN in the 6585-7125 MHz and WAS/RLAN within the lower 6 GHz band;
c) detailed mechanisms for WAS/RLAN to operate as a non-prioritised user;
d) a detailed analysis of the possibility of WAS/RLAN VLP[29] to operate as a non-prioritised user in the upper 6 GHz band;

4. RSPG acknowledges the strategic role of seamless interworking between MFCNs and WAS/RLAN in the future and invites CEPT and BEREC and other relevant European entities to take appropriate actions.

5.5 Study the possibility of operation as a non-prioritised user

1. The RSPG recommends to study the possible WAS/RLAN operation as a non-prioritised user in areas where MFCN coverage is unavailable, such considerations should address among others:

a) the merit of enabling WAS/RLAN deployment in specific cases where WAS/RLAN capacity needs would benefit from using the full upper 6 GHz and where no MFCN is expected to be deployed, e.g. a large factory in rural areas;
b) the risk of WAS/RLAN installations using the upper 6 GHz band being disrupted when a new MFCN base station is switched on, particularly in locations such as hospitals, stadiums, schools, universities and factories in urban or sub-urban areas;
c) the adequate protection of MFCN in its prioritised portion of the upper 6 GHz band;
d) the wish of some administration to allow access of WAS/RLAN to the non-prioritised portion of the band only on a licensed basis.

2. Member States should maintain the authority to determine whether WAS/RLAN, non-prioritised usage is allowed.
3. If sufficient evidence confirms the technical and regulatory feasibility of such non-prioritised usage, supported by CEPT studies, the next step will be to refine the details and develop solutions to enable the non-prioritised access to the band. This follow-up work could be part of a follow-up Opinion of the RSPG.

5.6 Consideration on the 7125-7250 MHz band

RSPG is of the view that, if this frequency band is identified for IMT, this frequency band may be considered for extending the MFCN band in the upper 6 GHz range, as part of a follow-up opinion of the RSPG after WRC-27.

[29] Very Low Power