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Europe's Approach to the Upper 6 GHz Band

An overview of developments in the UK and the European Union (EU)

AUGUST 2026

Executive summary

European governments are exploring shared use of the upper 6 GHz band (6425-7125 MHz) between licence-exempt Wi-Fi and licensed mobile networks[1]. This paper outlines the progress of this work across several fronts:

UK regulator Ofcom

For the upper 6 GHz band, Ofcom has adopted a prioritised band split:

- The "Wi-Fi priority portion" in the lower 160 MHz (6425-6585 MHz) should be available by the end of 2026 for use by WAS/RLAN under the same conditions as in the lower 6 GHz band with three different device categories: very low power (VLP), low power indoor (LPI), and standard power (SP). SP operations (both indoors and outdoors) are managed by automated frequency coordination (AFC) systems.

- In the "mobile priority" portion (6585-7125 MHz), Ofcom plans to enable WAS/RLAN access points managed by an AFC to operate, as long as they don't interfere with incumbent services, such as fixed links, and with future IMT services, as and when they are launched.

In July 2026, Ofcom published regulations for AFC systems and AFC-managed devices, which will apply across the entire 6 GHz band. Other European countries, including Germany, are also exploring the potential use of database-controlled access, also known as a DSACF (dynamic spectrum access coordination function), to enable non-priority WAS/RLAN use in the IMT priority portion of the upper 6 GHz band.

The Radio Spectrum Policy Group (RSPG)

The RSPG has also been exploring how to implement a prioritised band split. Unlike the UK, the RSPG recommended waiting for the outcome of WRC-27 before deciding on how to allocate the 6425-6585 MHz portion of the upper 6 GHz band. If WRC-27 identifies the 7125-7250 MHz band for IMT, the RSPG believes there is a strong case for designating the 6425-6585 MHz band for prioritised WAS/RLAN use. Conversely, if WRC-27 does not identify the 7125-7250 MHz band for IMT, the RSPG believes there is a strong case for designating the 6425-6585 MHz band for prioritised mobile use.

The RSPG has issued a consultation proposing that the EU support an IMT identification of the frequency band 7125-7250 MHz at WRC-27 on the basis that:

- Studies confirm the protection of incumbent in-band and adjacent-band services alongside feasible IMT deployment scenarios, and

- Incumbent services are protected.

1 In European regulatory discussions, Wi-Fi networks are referred to as Wireless Access Systems/Radio Local Area Networks (WAS/RLAN) while mobile networks are referred to as International Mobile Telecommunications or Mobile/Fixed Communications Networks (IMT or MFCN).

If 7125-7250 MHz is identified for IMT at WRC-27 the RSPG has recommended splitting the upper 6 GHz band into two portions: 6425-6585 MHz and 6585-7250 MHz. Just as in the UK, IMT would have priority in 6585-7125 MHz, but WAS/RLAN could also use this portion as long as it does not cause interference to IMT.

European Conference of Postal and Telecommunications Administrations (CEPT)

Published in draft form in June 2026, CEPT Report 94 identifies a prioritised band split of upper 6 GHz, supported by a database-assisted coordination framework, as the preferred approach for enabling shared use by mobile networks and WAS/RLAN. The report is due to be finalised in September 2026 and published in October 2026.

This work forms part of a broader European Commission mandate to CEPT. Under the same mandate, CEPT published Report 92 in June 2026, addressing coexistence between IMT/WAS/RLAN and incumbent services, and is due to deliver a third report by July 2027 on the longer-term framework for shared use of the band.

Introduction

While Canada, Saudi Arabia, South Korea, the US and several other countries have made the entire 6 GHz band available for use by Wi-Fi, European governments are looking at how to share the upper portion of this spectrum (6425-7125 MHz) between Wi-Fi and mobile networks[2].

This document outlines:

1. The steps being taken by the European Conference of Postal and Telecommunications Administrations (CEPT) to develop technical conditions for shared use of the upper 6 GHz band;
2. The EU's Radio Spectrum Policy Group (RSPG)'s efforts to develop an efficient and effective means to share;
3. The approach being taken by UK regulator Ofcom to enable Wi-Fi to access the upper 6 GHz, while allowing for future mobile use in a framework compatible with that being considered by the EU.
4. How Ofcom plans to regulate the automated frequency coordination (AFC)[3] systems it will employ to manage shared access to the 6 GHz band.

1. CEPT is developing the technical conditions for shared use

The European Commission (EC) directed CEPT to assess the feasibility of shared use of the upper 6 GHz band, as well as coexistence scenarios with incumbent spectrum users. When there is at least one feasible sharing option that also protects incumbents and adjacent users, the mandate requires harmonised technical conditions to be developed for implementation. If the studies show that sharing the full upper 6 GHz band between WAS/RLAN and IMT is not feasible, the mandate requires the development of harmonised technical conditions for alternative approaches for the use of the upper 6 GHz band by one or both systems without prior constraints or order of preference.
The mandate requested a final report by July 2027 with interim tasks due periodically.

2 According to the European Commission mandate issued in December 2024. https://ec.europa.eu/newsroom/dae/redirection/document/111010

3 Known as automated frequency coordination (AFC) systems in the UK, this technology is referred to as dynamic spectrum access coordination function (DSACF) elsewhere in the EU.

To deliver on the EC mandate, CEPT is undertaking three key tasks:

Task 1 – Studying coexistence with incumbents

- In June 2026, CEPT published Report 92, which outlines the technical conditions under which Wi-Fi and IMT services can share the upper 6 GHz band with incumbents, such as fixed services (FS), fixed satellite services (FSS), radio astronomy services (RAS) and special events (PMSE).
- To share channels with incumbent FS, for example, the CEPT report says IMT systems may need to maintain geographical separation distances of between 42 km and 321 km in the main beam of FS receiver antenna.
- The report concludes that co-channel sharing between FS and WAS/RLAN is feasible, if the latter is restricted to use indoors and at low power.

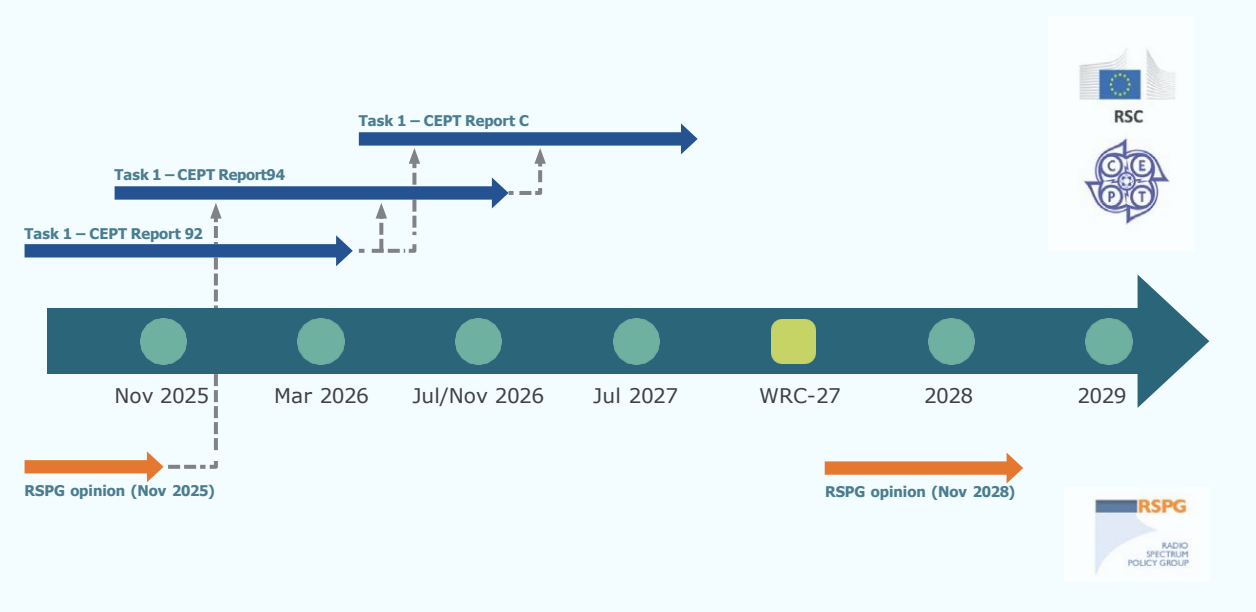
Task 2 – Studying shared use of the upper 6 GHz band by MFCN and WAS/RLAN

- In June 2026, CEPT published a draft of Report 94 on the feasibility of shared use of the upper 6 GHz band by MFCN (mobile/fixed communications networks, also known as IMT) and WAS/RLAN.
- The draft identifies a prioritised band split approach as the preferred option. Under this framework, non-prioritised WAS/RLAN systems could access the portion of the band designated for prioritised IMT use, provided they do not cause harmful interference.
- After assessing mechanisms to enable non-prioritised WAS/RLAN use within the portion of the band prioritised for IMT, the draft identifies a database assisted framework as the most viable approach.
- Meetings are scheduled in late August and September 2026 to reconcile comments received for final publication of the report at the end of October.
- Following on from Report 94, ECC has tasked FM-61 with a new work item to study VLP use in the IMT prioritised portion of the upper 6 GHz.

Task 3 – Developing harmonised conditions

- Building on the previous two reports, CEPT has started to work on a third report to develop the frequency arrangement and the least restrictive harmonised technical conditions for the prioritised band split scenario. Given the dependency on the WRC-27 outcome introduced by the RSPG and endorsed by CEPT, this report will only be able to provide specific conditions for IMT operation in the 6585-7125 MHz band. CEPT plans to address other aspects of the prioritised band split scenario through further activities which are likely to conclude by early 2029.

The graphic below shows the timeline for the CEPT process.



2. RSPG considers EU approach to the upper 6 GHz band

The EU asked the RSPG to provide an opinion with policy recommendations on the best use of the upper 6 GHz band to achieve the EU's digital connectivity objectives.

Some 50 organisations responded to the RSPG consultation requesting input on the best use of the upper 6 GHz band. Those responses revealed strong cross-sector support, including from technology companies, fibre operators, academia, retailers and incumbent users of the band, for licence-exempt access to the upper 6 GHz band. Many respondents highlighted a clear need for wide contiguous channels for Wi-Fi 7 and most respondents (29 of the 50) backed the allocation of at least 320 MHz of the upper 6 GHz band for WAS/RLAN.

In its final opinion, issued in November 2025, the RSPG recommended a prioritised band split, in which the spectrum is divided into two parts. In each part, one application has priority, but the other application can also use that spectrum, as long as it does not cause interference to the primary application. Despite the strong support for prioritising at least 320 MHz for WAS/RLAN, the RSPG proposed the prioritised use of the 6585-7125 MHz band for IMT. However, the RSPG also recommended that CEPT investigate non-prioritised WAS/RLAN usage within this full power IMT portion, ensuring that such operation does not cause harmful interference to IMT.

The RSPG further recommended waiting for the outcome of WRC-27 before deciding on the future of the remaining 160 MHz (6425-6585 MHz). If WRC-27 identifies the 7125-7250 MHz band for IMT, the RSPG believes there is a strong case for designating the 6425-6585 MHz band for prioritised WAS/RLAN use. Conversely, if WRC-27 does not identify the 7125-7250 MHz band for IMT, the RSPG believes there is a strong case for designating the 6425-6585 MHz band for prioritised mobile use.

In 2028, the RSPG will issue its final opinion (and recommendation to the EU) regarding the future use of the upper 6 GHz band in which it will stipulate whether 6425-6585 MHz will be use for WAS/RLAN or for prioritised MFCN use.

Within this shared use framework, the RSPG seeks to ensure that EU Member States have the flexibility to maintain existing fixed service usage, while supporting additional applications (IMT and WAS/RLAN) as needed. It also recommends that Member States should have the flexibility not to award spectrum where no demand arises for IMT in the band and also to determine whether non-prioritised WAS/RLAN usage is allowed.

Crucially, the RSPG suggested that CEPT should, within the scope of the EC Mandate (Tasks 1 and 2), study the technical conditions to make sure that IMT use in the upper 6 GHz band does not impact the continued operation of WAS/RLAN in the lower 6 GHz band (5945-6425 MHz).

Further, in its Draft Opinion on WRC-27 published in June 2026, the RSPG recommends that the European Commission proposes an EU position to the Council to support an IMT identification of the frequency band 7125-7250 MHz, on the basis that:

- Studies confirm the protection of incumbent in-band and adjacent-band services alongside feasible IMT deployment scenarios,
- The protection of incumbent services through relevant RR provisions is ensured.

Finally, in its opinion on a 6G spectrum roadmap published in June 2026, the RSPG expresses the view that, while 6G can be implemented in all frequency bands already harmonised, the upper 6 GHz band will be the primary band suitable for the introduction of 6G in Europe by 2030. It contends that this band can enable implementation of 6G use cases that require more capacity than 5G services.

Overall, once CEPT has refined and recommended harmonised technical conditions for the upper 6 GHz, the EU will then decide on a harmonised approach, which national administrations can use to define their policies.

3. The UK plans to harness the upper 6 GHz for Wi-Fi

While CEPT's work on the upper 6 GHz band continues, UK regulator Ofcom has taken a pragmatic approach to harnessing the 6 GHz band, while remaining aligned with the EU by maintaining that the spectrum should be employed by both technologies on a shared basis. Ofcom's 6 GHz plan can be summarised as follows:

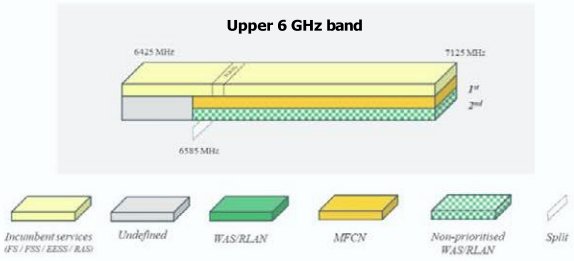
Lower 6 GHz. In the lower 6 GHz band, where licence-exempt use is already allowed for low power indoor and very low power indoor and outdoor usage, a new class of standard power licence-exempt devices (able to transmit at up to 4W) will be allowed to operate indoors and outdoors. Incumbent services, such as FS and RAS, will be protected by the use of automated frequency coordination systems that are already extensively used in markets such as the US and Canada.

Upper 6 GHz. For the upper 6 GHz band, Ofcom adopted the same prioritised band split as that proposed by the RSPG, but with an important difference: the lower 160 MHz will be made available for use by WAS/RLAN by the end of 2026 with the same conditions as in the lower 6 GHz band (i.e. VLP, LPI and the newly-introduced SP). In the remaining 540 MHz, which will be prioritised for mobile use, WAS/RLAN devices may operate, but only under the control of an AFC.

In July 2026, Ofcom announced the adoption of regulations related to "Expanding access to the 6 GHz band for commercial mobile and Wi-Fi services," permitting Wi-Fi use of the upper 6 GHz band through a prioritised spectrum sharing framework. Ofcom simultaneously published regulations for AFC systems and AFC-managed devices, which will apply across the 6 GHz band (see box below). These regulations are designed to protect incumbent services, such as fixed links, across the band and to protect IMT services, if and when they are launched in 6585-7125 MHz. While the regulations for AFC systems differ slightly from those adopted in other countries, Ofcom has built on international experience in certification and AFC service deployment in an effort to expedite adoption in the UK.

Ofcom has also consulted on plans for a "sub-national licensing" approach for mobile services in the mobile priority portion of the band. This involves awarding mobile licences in "high density areas" (such as urban centres) while implementing localised licensing arrangements, such as first-come-first-served, in other areas. Ofcom has yet to finalise its regulations for introducing mobile services. However, it has proposed to clear fixed link incumbents from the mobile prioritised portion over a five-year period and to license mobile services in 88 high-density areas, starting in 2031. Once mobile services in those areas are deployed, Wi-Fi deployments in these locations will need to cease operations, which the AFC will enable.

RSPG opinion



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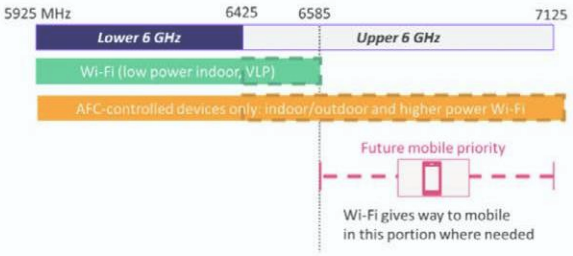

How AFC/DSACF will work in the UK

To make use of the 6 GHz band, standard power RLAN access points and fixed client devices must have a geolocation capability (internal or external) and operate in accordance with parameters overseen by an AFC system run by registered service providers.

- To register with Ofcom, AFC service providers will need to comply with requirements relating to technical calculations and the secure acquisition and maintenance of licence data, and will need to manage and respond to interference effectively.
- AFC service providers will need to obtain independent assurance that their AFC systems support security, integrity and availability. In addition, prospective AFC service providers will be required to enter into a non-disclosure agreement with Ofcom.
- Ofcom set out the following technical conditions for AFC systems to apply to RLAN access points and client devices operating in the 6 GHz band.
  - To protect fixed links, Ofcom has set a long-term I/N protection criterion of -10 dB I/N, not to be exceeded for more than 20% of the time. This criterion is designed to provide additional protection against aggregate interference in those locations where Wi-Fi is densely deployed, such as sports venues and university campuses.
  - Ofcom said it will keep protection criterion under review as AFC systems evolve and it gains real world data from system deployments.
  - It will permit AFC systems to apply a building entry loss (BEL) value of 14 dB for devices that are confirmed to be operating indoors.
  - To support a broad range of use cases, including licence-exempt fixed wireless access, Ofcom will not require the implementation of a contention-based protocol.
  - With a view to enhancing coverage and enabling new use cases, Ofcom has set a maximum EIRP for mobile client devices of 30 dBm.

Conclusions

In the UK, Ofcom has adopted a pragmatic and innovative way forward within the envelope envisioned by the RSPG Opinion. Given the need for coordination with, or migration of, incumbent services, which will take several years, the introduction of IMT in the upper 6 GHz band is unlikely to happen before the end of 2031 in the UK. In light of that, Ofcom's decision to allow Wi-Fi to operate across the entire 6 GHz band is particularly forward-looking and will ensure valuable spectrum does not sit fallow.

While broadly aligned with the RSPG opinion, Ofcom's approach means the UK can increase the spectrum available for Wi-Fi in the near future, rather than waiting for the outcome of WRC-27. Under the proposed timetable, Wi-Fi could have access to the upper 6 GHz band before the end of 2026.

At the same time, its plans to leverage the introduction of AFC for SP operation in the lower 6 GHz and to enable carefully-controlled Wi-Fi usage of the mobile-prioritised portion of the upper 6 GHz band will help meet enterprise demand for more licence-exempt spectrum, without hindering other future usage of the band.

As a result, the UK should be able to benefit from more performant Wi-Fi sooner, while still ultimately benefitting from the economies of scale and interoperability arising from alignment with the approach being taken elsewhere in Europe.

The need for protection of WAS/RLAN from high power IMT is recognised by both the RSPG and by Ofcom, which has said that the 160 MHz (6425-6585 MHz) prioritised for WAS/RLAN will be subject to the same conditions as the lower 6 GHz.

CEPT is currently evaluating the feasibility of enabling SP WAS/RLAN (up to 4 W) in the lower 6 GHz band via database systems[5]. As planned by Ofcom, this approach can also be used to enable Wi-Fi to operate in the mobile-prioritised portion of the upper 6 GHz band.

Several EU administrations have expressed interest in the UK approach and are closely following this process. In particular, there is growing interest in the potential of a DSACF to effectively manage the sharing of the upper 6 GHz band by Wi-Fi and IMT services. For example, in September 2026, Germany's Federal Network Agency, in cooperation with the Federal Ministry for Digital Transformation and Government Modernisation (BMDS), is holding an industry dialogue on the potential use of DSACF for non-priority WLAN use in the 6 GHz band. Referencing CEPT Working Group FM61, the agency said the discussion would focus on the conditions under which DSACF could potentially be implemented in the future.

This dialogue reflects the growing willingness to explore practical solutions in Europe, such as the approach adopted by Ofcom, following the RSPG Opinion.

4 Draft ECC Report 377 "Sharing and compatibility studies related to Wireless Access Systems including Radio Local Area Networks (WAS/RLAN) up to 4 W e.i.r.p. in the frequency band 5945-6425 MHz".