

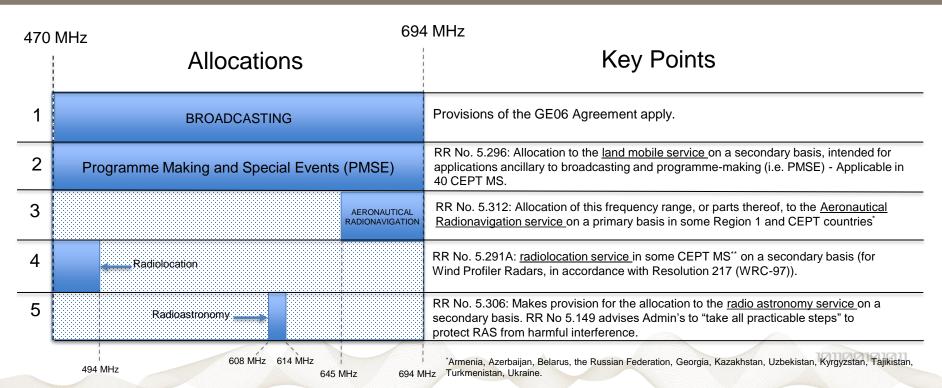


WRC-23 Agenda Item 1.5: UHF Band Review

- Agenda Item 1.5: to review the spectrum use and spectrum needs of existing services in the frequency band 470-960 MHz in Region 1 and consider possible regulatory actions in the frequency band 470-694 MHz in Region 1 on the basis of the review in accordance with **Resolution 235** (WRC-15).
- Agenda Item 1.5 has been considered:
 - At CEPT level, under CPG Project Team D (PTD) 8 Meetings have so far been held;
 - > 2 further meetings of PTD due to be held in May and July of this year
 - At ITU-R level, under Task Group 6/1 (TG 6/1) at ITU-R level 5 meetings held in total, the last of which was in September 2022.
 - TG 6/1 work has now concluded, and draft text for inclusion in the draft Conference Preparatory Meeting (CPM) Report has been submitted for further consideration at the upcoming ITU-R CPM meeting (CPM23-2, scheduled to begin on March 27th).
- · Key goals of PTD:
 - Develop CEPT Brief on WRC-23 Agenda Item 1.5 consisting of the preliminary CEPT Position and background information/rationale for this position.
 - Develop a European Common Proposal on WRC-23 Agenda Item 1.5 agreed CEPT proposal to the WRC with the aim of gaining WRC approval.
 - Active representation and coordination of CEPT views/positions at TG 6/1, other relevant ITU-R Meetings and WRC-23.



Allocations as per ITU-R Radio Regulations





Future-focused considerations specific to Broadcasting and PMSE

- Decision (EU) 2017/899 states that "Member States shall ensure availability at least until 2030 of the 470-694 MHz ('sub-700 MHz') frequency 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".
- The ECC Strategic plan for the period 2020 2025, explicitly states that any review of the UHF band should take into account the current use by PMSE in the band, and consider future spectrum needs to support audio-visual media distribution over the longer term, taking into account anticipated developments in broadcast distribution technologies.
- The 470-694 MHz band is now the only remaining spectrum available in many CEPT countries for DTT and PMSE uses in the UHF band.



Preliminary CEPT Position

General Views (470 – 690 MHz)

- Existing Usage: Rigorous overview required.
- Existing Services: Rigorous evaluation of Spectrum needs required.
- Possible regulatory actions? Results & Impact of Sharing Studies – full account & analysis required.
- Seek long-term balance between meeting various national requirements and effective cross-border coordination between the existing services and various services/applications wishing to access spectrum, including applications of the mobile service.

Broadcasting

- CEPT View: Primary allocation shall remain.
- CEPT View:
 Any potential
 regulatory action
 must align with
 provisions of GE06
 Agreement.

PMSE (SAP/SAB)

 <u>CEPT support</u> the continuation and development of incumbent usage by PMSE (in accordance with RR No. 5.296).

Radioastronomy

- CEPT support the protection of the RAS in the range 606 – 614 MHz to ensure its continued operation.
- CEPT View:
 Any decision on regulatory action(s) at WRC-23 shall also, if required, consider regulatory action to protect RAS (taking RR 5.149 into account).

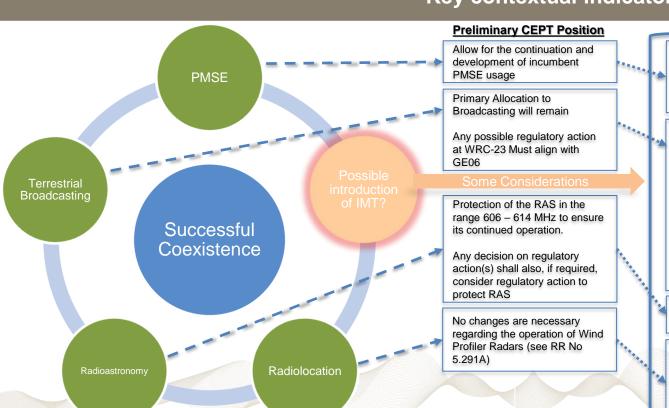
Radiolocation (WPR)

 CEPT View: No changes are necessary regarding the operation of Wind Profiler Radars (see RR No 5.291A)

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Key contextual indicators from the work of PTD



Introduction of IMT

Studies submitted to TG 6/1 indicate that cochannel operation with IMT is not viable.

Adequate spatial separation may be required for PMSE Op's adjacent to IMT

Co-channel operation of DTTB transmitter and IMT uplink receiver require separation distances ranging from around 100 – 300 km.

Co-channel operation of IMT BS to DTTB reception require separation distances of the order of 40 -50 km

Possible future mitigation measures: Mandate significantly improved ACLR of the IMT BS; use of band-reject filters for DTTB receiving installations, implement suitable national coordination procedures before IMT deployment.

separation distances of up to 1000 km (BS) / 450 km (UE) or more may be required

a decoupling distance of some kilometres needs to be established.

Decoupling distance can be reduced by protective measures such as lateral earth walls or clutter fences around WPR.



ECP Options being considered - WIP

ECP Option 1

Co-primary allocation to the Mobile service

Sub-options

- Later date of entry into force (e.g. 01/01/2031);
- Upgrade of the RAS allocation from Secondary to Primary;
- Make available a sufficient part of the 470 – 694 MHz band for the use of PMSE (SAP/SAB) according to national needs.
- Where border field strengths exceed GE06 trigger thresholds or either service is to be protected, Bilateral or Multilateral agreements will be required.

ECP Option 2

No change (NOC) to the Radio Regulations

Sub-options

- Possibility for regulatory action either at WRC-27 or WRC-31;
- opportunity to further review situation in preparation for either WRC-27 or WRC-31 (e.g., in 2026 or 2030);
- •Technical and regulatory studies carried out in preparation for WRC-23 – no need to update these except in cases of significantly changed characteristics.

ECP Option 3

Secondary allocation to the Mobile Service ¹

Sub-options

- Post WRC-27 (and in time for WRC-31), review spectrum use of Broadcasting and Mobile Services, incl. applications covered by RR 5.296;
- Identify cases (if any) where there may be a need to update Sharing and Compatibility studies in light of significantly changed technical characteristics of Mobile and Broadcasting applications, and further develop these studies if required.

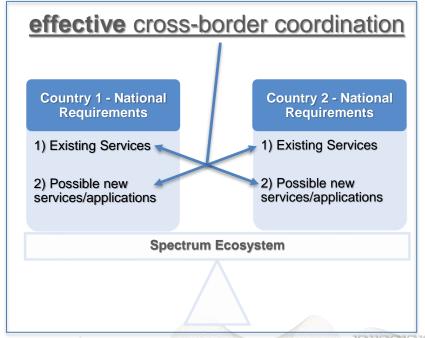
¹ possible alternative for consideration alongside the existing draft ECP Options 1 & 2



PTD: Remaining Key Goals

- Represent & Support the Preliminary CEPT position during CPM23-2;
- Use the remaining 2 PTD meetings to finalise the draft CEPT Brief on AI 1.5, and fully develop ECP;
- 3. During WRC-23, promulgate and advance the finalised ECP on Al 1.5 towards adoption;

A key overarching principle to keep in mind: **seek long-term balance**



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Final Remarks

- 1. PTD is only working towards outcomes from WRC-23, and although considering possibilities to enable regulatory changes thereafter, is not currently focused on supporting specific new developments post-2030.
- 2. Only 2 meetings remain within which an ECP may be agreed.
- 3. Regulatory measures and guidance already in place to protect existing services should continue to be respected.
- 4. The promoted final recommendations of the work of PTD² (i.e. a formal ECP) will, if successfully incorporated into WRC-23 outcomes, inform future possibilities regarding use of the 470 694 MHz band.

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Thank You.





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