

**ITUEvents**

# **2<sup>nd</sup> ITU Inter-regional Workshop on WRC-23 Preparation**

**29 November – 1 December 2022  
Geneva, Switzerland**

[www.itu.int/go/ITU-R/wrc-23-irwsp-22](http://www.itu.int/go/ITU-R/wrc-23-irwsp-22)  
**#ITUWRC**

**Session 2-BS, MS &  
other IMT issues  
WRC-23 agenda item  
9.1, Topic c)**

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# Background

- **Resolution 175 (WRC-19)**

- to *invite the ITU Radiocommunication Sector* to conduct any necessary studies on the use of [International Mobile Telecommunication](#)(IMT) systems for [fixed wireless broadband](#) in the frequency bands allocated to the fixed service on a primary basis, taking into account the relevant ITU-R studies, Handbooks, Recommendations, and Reports

- **Structure**

- **Response Group:** WP 5A and WP 5C
  - Established a Joint ad hoc group, and output documents were approved by joint sessions of WP 5A and 5C
- **Contributing Groups:** WPs 1B, 4A, 4C, 5D, 6A, 7B, 7C, 7D

# ITU-R Studies(1)

## Terms used in the studies

- IMT system or IMT technology
  - this topic concerned the fixed wireless applications that use IMT technologies in the frequency bands allocated to the fixed service on a primary basis
- Fixed Wireless Broadband (FWB)
  - **Fixed wireless broadband:** short form for the term “broadband fixed wireless system”
  - **Different understandings of FWB**
    - Broadband FWA - fixed wireless access applications in which the connection(s) capabilities are higher than the primary rate;
    - FWB comprises Fixed Wireless Access, transport, and backhaul.
  - **Reference:**
    - **Fixed wireless system:** Telecommunication systems operating in the fixed service including, for example, radio-relay systems, HF systems, and systems using high altitude platform stations (HAPS), and which support a range of applications such as access and core transport. (Recommendation [ITU-R F.592](#) )
    - **Fixed wireless access (FWA):** Fixed wireless system application in which the location of the end-user termination and the network access point to be connected to the end-user are fixed. (Recommendation [ITU-R F.1399](#).)



# ITU-R Studies(2)

## Proceed with the studies

- Review and update the existing ITU publications
  - **Questions**
  - (1) [215-4/5 \(WP5A\)](#): Frequency bands, technical characteristics, and operational requirements for fixed wireless access systems in the fixed and/or land mobile services,
  - (2) [247-1/5 \(WP5C\)](#): Radio-frequency arrangements for fixed wireless systems
  - **Related ITU publications**
  - (1) [Guide to the use of ITU-R texts relating to the land mobile service, including wireless access in the fixed service](#), summarized the published Recommendations, Reports and Handbook on Fixed Wireless Access;
  - (2) [ITU-R F.1401-1](#) - Considerations for the identification of possible frequency bands for fixed wireless access and related sharing studies
  - (3) [ITU-R F.1490-1](#) - Generic requirements for fixed wireless access systems
  - (4) [ITU-R F.1763-1](#) - Radio interface standards for broadband wireless access systems in the fixed service operating below 66 GHz
- New ITU-R Recommendation/Report
  - (1) Proposals on draft new ITU-R Report/Recommendation, with regards to the new capabilities of IMT systems and technologies to support various applications of fixed wireless broadband within the fixed service, including access and backhauling capabilities, were considered, however, no consensus was achieved

# Draft CPM Text

## - response to the objectives of Resolution 175 (WRC-19)

- **Alternative 1**

- Revision to Resolution 175 (WRC-19), or draft a new Resolution for WRC-27 for a new agenda item, or draft a new ITU-R Resolution at RA-23, along with a new Question;
- The mandate by WRC-23 agenda item 9.1, topic c), was not achieved nor satisfied, and the scope was not addressed.

- **Alternative 2**

- To continue WP 5A and WP 5C studies, taking into account existing and new Study Questions, revising existing publications, or considering new ITU-R documents, to support the future development of fixed wireless applications including those that use IMT technologies in the frequency bands allocated to the fixed service;
- Not in favor of having any draft new or revised Resolution, and doing so would be outside the scope of the Resolution 175 (WRC-19) resolves and consequently is not compliant with Resolution ITU-R 2-8, Annex 1 (Working methods), § A1.2.8.

# APT Preliminary Views on WRC-23 Agenda Items: **AI 9.1 c)**

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- **APT Preliminary Views:**

- APT Members support the on-going ITU-R studies in accordance with Resolution **175 (WRC-19)** under WRC-23 agenda item 9.1 topic c).
- APT Members support reviewing existing ITU-R Recommendation(s), Report(s) and/or Handbook. If this review identifies any need for their revision to meet the objective of this topic, APT Members support revising them accordingly. Should such a revision still not satisfy the requirements of this topic, the development of new Recommendation(s), Report(s) and/or Handbook is supported.
- APT Members support no change to the Radio Regulations under agenda item 9.1 topic c), except for suppression of Resolution 175 (WRC-19).
- APT Members are of the view that the term “fixed wireless broadband” could include a range of applications.
- APT Members are of the view that there is no need to have any draft new or revised Resolution on this matter in the draft CPM text.

# APT Preliminary Views on WRC-23 Agenda Items: **AI 9.1 c)**

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- **Issues in APG-23:**

- **The meaning of term “Fixed wireless broadband”** was discussed whether to mention this point in the APT Preliminary Views. There was a proposal to include specific examples of fixed wireless broadband applications, such as “access and core network transport”. After the discussion, it was decided not to include such details.

DG Chair: Dr. Yongseok SEO (Republic of Korea)



# ASMG

9.1) c Study the use of International Mobile Telecommunication system for fixed wireless broadband in the frequency bands allocated to the fixed services on primary basis

- To consider the use of IMT systems and technologies in the frequency bands allocated on a primary basis to the fixed service and to consider the bands that can be used for IMT systems for fixed wireless broadband in the frequency bands allocated on a primary basis to the fixed service with an emphasis on the protection of existing services.



# ATU

- **APM23-3 agreed to:**
- Part 1: Common position:
  - 1. **Decide** that, as a matter of principle, there is no need to change the Radio Regulations to use the frequency bands allocated to the fixed services on primary basis for use of International Mobile Telecommunication systems for fixed wireless broadband applications. Also, the protection of incumbent services operating in the same or in adjacent frequency bands need to be ensured.
  - 2. **Decide** that, the development of any new ITU-R Recommendations should not be undertaken, unless modifying existing ITU-R Recommendations does not address the matter.
- Part 2: Way forward
  - 1. **Ensure** that, the Report to the BR Director is fully in line with the Resolution **175** of WRC-19.
  - 2. **Consider** that, the ITU-R may continue studies, taking into account existing and new Study Questions, or revising existing publications, or considering new ITU-R documents, to support the future development of fixed wireless applications including those that use IMT technology in the frequency bands allocated to the fixed service. This activity is already in progress in WP 5A and WP 5C and can continue through the course of work.
  - 3. **Actively** participate to pursue this issue in case of any futures studies would be triggered among WPs 5A/5C activities as the draft CPM study has been concluded.



# WRC-23 Agenda item 9.1, topic c

*Study the use of International Mobile Telecommunication system for fixed wireless broadband in the frequency bands allocated to the fixed services on primary basis, in accordance with Resolution **175 (WRC-19)***

## Preliminary CEPT position

CEPT supports suppression of Resolution **175 (WRC-19)** and opposes any other changes to the Radio Regulations in response to WRC-23 Agenda item 9.1, topic c including any draft new or revised Resolution on this topic, aligned with Alternative 2 of the draft CPM text.

CEPT is of the view that:

- the usage of IMT systems in the fixed service is not compliant with the Radio Regulations;
- the work under this topic should focus on consideration of broadband fixed wireless access (BFWA) that use IMT technologies under the existing regulatory framework of the FS;
- given the existing provisions of the Radio Regulations and taking a technology neutral approach there is no need to consider/study specific frequency bands under this topic;
- BFWA that use IMT technologies as well as other technologies in the frequency bands allocated to the fixed service can be adequately addressed, if necessary, through an update of appropriate existing ITU-R Recommendations/Reports/Handbooks aligned with Approach 2 of the draft CPM text;
- the development of new ITU-R Recommendations/Reports should only be considered, if necessary, based on the outcome of a review of existing ITU-R Deliverables;
- discussions on fixed wireless broadband applications that use IMT technologies, as any other technologies, should take place in ITU-R WPs 5A and 5C (not other ITU-R WPs) to avoid fragmentation of work and to ensure efficient working within ITU-R.

## SGT1 - MOBILE, FIXED & BROADCASTING AGENDA ITEM 9.1 – TOPIC C



### Inter-American Proposals:

- Proposals: **NOC to the RR except for the suppression of Resolution 175 (WRC-19).**

**Reasons:** Changes to the Radio Regulations are outside the scope of agenda item 9.1 topics. No changes to Article 5, including any identification for IMT of existing bands allocated for fixed service should be made under this topic of the 9.1 agenda item.

Suppression of Resolution **175 (WRC-19)** is a consequential change as no further action is required by a WRC to address this topic. The ITU-R, through the course of its normal Study Group activities, may continue studies towards the revision of existing Reports and Recommendations, to consider the use of IMT for fixed wireless broadband within the fixed service on a primary basis.



## 9.1c – FWA & IMT

### How to address convergence of fixed and mobile technologies



Zinaida Paharzhelskaya

- The RCC Administrations oppose modifications of the Radio Regulations in response to WRC-23 agenda item 9.1 c) other than the suppression of Resolution 175 (WRC-19). (Alternative 2)
- IMT systems are designed to work in motion and do not meet the definitions of the FS. Studies on this topic should focus not on "IMT systems", but on "IMT technologies" used for FWA.
- FS stations using IMT technologies should be considered as fixed stations only and should not cause more interference and require more protection than existing FS stations.
- Aspects of the use of IMT technologies for FWA in the frequency bands allocated to the FS can be taken into account through the updating of existing ITU-R Recommendations/Reports/Handbooks, which is part of the routine activities of ITU-R WPs 5A and 5C. (Approach 2)