



## Radiocommunication Bureau (BR)

Addendum 7 to Circular Letter  
5/LCCE/59

15 July 2020

**To Administrations of Member States of the ITU, Radiocommunication Sector Members,  
ITU-R Associates participating in the work of Radiocommunication Study Group 5  
and ITU Academia**

**Subject:           Announcement of the IMT-2020 radio interface technologies resulting from the  
completion of Steps 5 to 7 of the IMT-2020 process for the evaluation of IMT-2020  
candidate technology submissions and decision on the qualifying RIT/SRIT  
technologies for IMT-2020 that advance to Step 8**

### **1           Introduction**

The first invitation for submission of proposals for candidate radio interface technologies (RITs) or a set of RITs (SRITs) for the terrestrial components of IMT-2020 was issued in Circular Letter [5/LCCE/59](#) on 22 March 2016. This Circular Letter also initiated an ongoing process to evaluate the candidate RITs or SRITs for the terrestrial components of IMT-2020 and invited the formation of independent evaluation groups (IEGs) and the subsequent submission of evaluation reports on these candidate RITs or SRITs.

On 4 July 2016, Addendum 1 to the Circular Letter announced the availability of further relevant information including the availability of Document IMT-2020/2 – *Submission and evaluation process and consensus building for IMT-2020*.

On 28 February 2017, Addendum 2 to the Circular Letter announced the availability of Report [ITU-R M.2410](#) – *Minimum requirements related to technical performance for IMT-2020 radio interface(s)* and revision to Document IMT-2020/2(Rev.1), as well as preliminary information on the IMT-2020 workshop.

On 5 July 2017, Addendum 3 to the Circular Letter announced the availability of two new Reports [ITU-R M.2411](#) – *Requirements, evaluation criteria and submission templates for the development of IMT-2020* and [ITU-R M.2412](#) – *Guidelines for evaluation of radio interface technologies for IMT-2020*. The Addendum 3 also provided the updated information on the IMT-2020 workshop that was held during the 28<sup>th</sup> meeting of Working Party (WP) 5D in October 2017.

On 24 July 2019, Addendum 4 to the Circular Letter announced the acknowledgment of the four proposed candidate technologies received by ITU-R during the Step 3 of the IMT-2020 submission and evaluation process, the information of the Workshop on IMT-2020 Terrestrial Radio Interfaces Evaluation during the 33<sup>rd</sup> meeting of WP 5D in December 2019, and availability of Document [IMT-2020/2\(Rev.2\)](#).

On 18 December 2019, Addendum 5 to the Circular Letter provided further information on the successful closure of Step 3 for all IMT-2020 candidate technology submissions.

On 6 March 2020, Addendum 6 of the Circular Letter provided information on the completion of Step 4 of IMT-2020 process and announced the availability of the final evaluation reports from registered IEGs as well as a consolidated summary.

## **2 Announcement of the final decision on IMT-2020 technologies for Step 8 and completion of Steps 5 to 7 of the IMT-2020 process.**

This Addendum 7 of the Circular Letter [5/LCCE/59](#) provides information on the results of the 35<sup>th</sup> meeting of Working Party 5D (WP 5D meeting #35e<sup>1</sup>) and the overall completion of Steps 5 to 7 of IMT-2020 process and announces the decision on the candidate technology submissions assessed by ITU-R to be accepted as qualifying IMT-2020 technologies that have now moved forward to Step 8 of the process. The details and results of the decisions are provided in Annex 1.

## **3 Next Step of the Process (Step 8 and the draft new Recommendation)**

In accordance with Resolution ITU-R 65, the relevant ITU Recommendations and ITU Reports for the development of IMT-2020, and to assist further activities, the following are announced:

ITU-R is undertaking the standardization phase of IMT-2020 to be completed in Step 8 of the process. In Step 8, a (set of) IMT-2020 terrestrial component radio interface Recommendation(s) is developed on the basis of the results of Step 7, sufficiently detailed to enable worldwide compatibility of operation and equipment, including roaming. These detailed technical specifications for the terrestrial radio interface technologies, comprising the first release of IMT-2020, will be provided in the draft new Recommendation ITU-R M.[IMT-2020.SPECS] – *Detailed specifications of the radio interfaces of IMT-2020*, currently in development.

The draft new Recommendation is planned for first stage completion in October 2020 at ITU-R 36<sup>th</sup> meeting of Working Party 5D (WP 5D meeting #36), and final completion at ITU-R WP 5D meeting #36bis in November 2020, where it will then be submitted to ITU-R Study Group 5.

Upon ITU-R approval of the draft new Recommendation ITU-R M.[IMT-2020.SPECS], the IMT-2020 process for the first release for the radio interface(s) of IMT-2020 will be completed.

## **4 Future plans for the IMT process**

IMT is an on-going process of development and updates. In 2021, ITU-R will define the schedule for future revisions of the Recommendation ITU-R M.[IMT-2020.SPECS], to accommodate any future new, improved, or updated IMT-2020 candidate technology proposals beyond the first release, utilizing the same baseline IMT revision and update process currently in place as applied to IMT-2020.

## **5 Updates to the ITU-R web page for the IMT-2020**

Any changes will be announced or updated dynamically on the IMT-2020 web page as appropriate. Members and Sector members interested in the IMT-2020 development process are kindly requested to periodically check the [WP 5D website](#).

Mario Maniewicz  
Director

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<sup>1</sup> Meeting #35 was converted to a virtual (e-meeting) designated as #35e in response to the COVID-19 pandemic situation.

## ANNEX 1

### **Completion of Steps 5 to 7 of the IMT-2020 Process and the Final Decision on IMT-2020 technologies for the first release of the specifications to be included draft new Recommendation ITU-R M.[IMT-2020.SPECS]**

#### **1) Completion of Steps 5 to 7**

ITU-R, following the guidelines of the IMT-2020 process, has concluded these important Steps of the process. The result of these Steps has determined for each candidate technology RIT/SRIT submissions, whether the technology candidate technology submissions will be accepted for inclusion in the standardization phase under Step 8 of the IMT-2020 process.

In Step 5, ITU-R monitored the progress of the evaluation activities and provided appropriate responses to problems or requests for guidance to facilitate evaluation and/or consensus building.

In Step 6, ITU-R completed, *for each evaluated candidate technology submission*, an assessment to determine whether the RIT/SRIT technology is a “qualifying technology” having met or exceeded the defined published criteria for satisfactorily fulfilling the minimum requirements of IMT-2020. The “qualifying technologies” thus will move forward to Step 7.

In Step 7, ITU-R makes *the final decision* for each of the candidate technology submission proposals that satisfactorily fulfilled Step 6, as to whether the technology (and their respective SRIT or RITs) has satisfied the requirements of Resolution ITU-R-65, *resolves* 6 e) and f) fulfilling the minimum requirements for the five test environments comprising the three usage scenarios<sup>2</sup>.

Additionally, “Consensus Building” has been performed for those technologies successfully completing Steps 6 & 7, with the objective of achieving global harmonization and having the potential for wide industry support for the radio interfaces that are developed for IMT-2020. In Step 8, the results of consensus building amongst the candidate technology submission will be incorporated in the context and structure of draft new Recommendation ITU-R M.[IMT-2020.SPECS].

Steps 5 to 7 are hereby concluded for the candidate technologies listed in Section 2.

#### **2) Final decision on IMT-2020 technologies for Step 8 and the first release of the specifications to be included in draft new Recommendation ITU-R M.[IMT-2020.SPECS]**

ITU-R has determined that the IMT-2020 candidate technology submission proposals listed below have successfully completed Step 7 and all preceding Steps, and thus are accepted for inclusion as IMT-2020 technologies in the standardization phase for IMT-2020 as described in Step 8.

Candidate technology submissions accepted for Step 8 for first release of Recommendation ITU-R M.[IMT-2020.SPECS]:

- **Candidate SRIT submission from 3GPP proponent** (Acknowledgement of submission under Step 3 of the IMT-2020 process in [IMT-2020/13](#)).
- **Candidate RIT submission from 3GPP proponent** (Acknowledgement of submission under Step 3 of the IMT-2020 process in [IMT-2020/14](#)).
- **Candidate RIT submission from China (People’s Republic of)** (Acknowledgement of submission under Step 3 of the IMT-2020 process in [IMT-2020/15](#)).

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<sup>2</sup> In order to reach Step 7, each component RIT of the SRIT additionally needed to still fulfil the minimum requirements of at least two test environments to be assessed as a ‘qualifying SRIT’ in Step 6.

- **Candidate RIT submission from Korea (Republic of)** (Acknowledgement of submission under Step 3 of the IMT-2020 process in [IMT-2020/16](#)).
- **Candidate RIT submission from TSDSI** (Acknowledgement of submission under Step 3 of the IMT-2020 process in [IMT-2020/19\(Rev.1\)](#)).

### **3) IMT-2020 candidate technology submissions requiring additional evaluation**

ITU-R has determined that the IMT-2020 candidate technology submission proposals listed below will require additional evaluation to conclude their respective final assessment through Steps 6 and 7 of the current process. They will, therefore, on an exceptional basis continue in the process, rewinding to Step 4 in order to consider additional material<sup>3</sup>. Should each of these technology submissions individually and separately successfully navigate the rewind to Step 4 and the subsequent Steps 5-8 of the current IMT-2020 process extension, they would consequentially be included in a timely revision to the published first release of Recommendation ITU-R M.[IMT-2020.SPECS].

Candidate technology submissions granted an extension in the IMT-2020 process:

- **Candidate SRIT submission from ETSI (TC DECT) and DECT Forum** (Acknowledgement of submission under Step 3 of the IMT-2020 process in [IMT-2020/17\(Rev.1\)](#)).
- **Candidate RIT submission from Nufront** (Acknowledgement of submission under Step 3 of the IMT-2020 process in [IMT-2020/18\(Rev.1\)](#)).

This process extension for these specific candidate technology submissions will not impact the schedule for the first release of Recommendation ITU-R M.[IMT-2020.SPECS] and the inclusion of the identified Proponent submissions identified in Section 2 above that will proceed into Step 8.

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<sup>3</sup> See Document IMT-2020/52 “Agreed ‘Way Forward’ Option 2 for “ETSI (TC DECT) and DECT Forum Proponent” and “Nufront Proponent” candidate technology submissions for IMT-2020” for the specific details of this extension.