|  |  |
| --- | --- |
| **Radiocommunication Study Groups** |  |
|  |  |
|  |  |
| Source: Document 5D/TEMP/737 (Rev.1) | **Document IMT-2020/86-E** |
| **26 October 2022** |
| **English only** |
| Working Party 5D |
| THE OUTCOME FOR THE “NUFRONT PROPONENT” FOR THE EVALUATION, CONSENSUS BUILDING, AND COMPLIANCE WITH MINIMUM REQUIREMENTS FOR RIT QUALIFICATION IN THE IMT-2020 PROCESS (STEPS 4 TO 6) FOR THE ‘REVISION AFTER YEAR 2021’ OF RECommendation itu-r M.2150-1 |
|  |

# 1 Introduction

In the process for the Revision after year 2021 for ITU-R Recommendation M.2150, when a new RIT or SRIT is proposed by an ***RIT/SRIT Proponent***, the proposal will follow the process for IMT-2020 as defined in Document [IMT-2020/57](https://www.itu.int/md/R15-IMT.2020-C-0057/en) specifically:

 The process will begin at Step 3 (“Submission/reception of the RIT and SRIT proposals and acknowledgement of receipt”). Documents [IMT-2020/2(Rev.2)](https://www.itu.int/md/R15-IMT.2020-C-0002/en), and Reports ITU-R [M.2410-0](https://www.itu.int/pub/R-REP-M.2410) (2017), ITU-R [M.2411-0](https://www.itu.int/pub/R-REP-M.2411) (2017), ITU-R [M.2412-0](https://www.itu.int/pub/R-REP-M.2412) (2017), will apply. For timing purposes**[[1]](#footnote-1)**, the meeting at which the new proposal is submitted will be considered “Critical Milestone (1)”, the proposal deadline meeting, as defined in the Schedule of Document [IMT-2020/2(Rev.2)](https://www.itu.int/md/R15-IMT.2020-C-0002) in Figure 1. Within the process as outlined in Figure 1, the specific dates of the schedule will be appropriately decided respecting the steps of the process (approximately four meetings from “Critical Milestone (1)” to the finalization of Step 7 of the process in Document [IMT‑2020/2(Rev.2)](https://www.itu.int/md/R15-IMT.2020-C-0002).

 In Step 8, Document [IMT-2020/20](https://www.itu.int/md/R15-IMT.2020-C-0020/en) (“Process and the use of Global Core Specification (GCS), references and related certifications in conjunction with Recommendation ITU‑R M.2150”) will apply. The completion of Step 8 will be synchronized with the recurring update of Recommendation ITU-R M.2150. *Consequently, only after successful completion of Step 7, the new technology can enter the revision cycle for Recommendation ITU-R M.2150 at Z+2A or as late as Z+2B as outlined in Table 1 or 2 for inclusion in the current planned Revision.*

Addendum 1 to the Circular Letter [5/LCCE/94](http://www.itu.int/md/R00-SG05-CIR-0094/en) was developed to announce the reception by ITU-R of a submission of a new proposal for candidate radio interface technology (RIT) ([IMT-2020/76](https://www.itu.int/md/R15-IMT.2020-C-076/en)).

An ITU-R WP 5D webpage [*“IMT-2020 submission and evaluation process for M.2150 “Revision after Year 2021” planned to complete in 2023”*](https://www.itu.int/en/ITU-R/study-groups/rsg5/rwp5d/imt-2020/Pages/submission-eval-after2021.aspx) was established.

Independent Evaluation Groups (IEGs) participating in the IMT-2020 process were invited to engage in the evaluation Step 4 work for the candidate technology submission, while the schedule and actions of the proponent and WP 5D were also provided in Document IMT-2020/57 & IMT‑2020/58rev.1. There were six IEGs that had registered for evaluation for the candidate technology submission from Nufront.

The work undertaken adhered to the relevant IMT-2020 process guidance documents found in:

– Resolution [ITU-R 65](https://www.itu.int/pub/R-RES-R.65) – *Principles for the process of future development of IMT for 2020 and beyond*,

– Document [IMT-2020/2(Rev.2](https://www.itu.int/md/R15-IMT.2020-C-0002/en)) – *Submission, evaluation process and consensus building* for IMT-2020,

– Report ITU-R [M.2410](https://www.itu.int/pub/R-REP-M.2410) – *Minimum requirements related to technical performance for IMT-2020 radio interface(s)*,

– Report ITU-R [M.2411](https://www.itu.int/pub/R-REP-M.2411) – *Requirements, evaluation criteria and submission templates for the development of IMT-2020*, and particularly

– Report ITU-R [M.2412](https://www.itu.int/pub/R-REP-M.2412) – *Guidelines for evaluation of radio interface technologies for IMT-2020.*

# 2 Scope

The Report is the record of the work performed after receipt of complete proposal for IMT-2020 candidate RIT (IMT-2020/76). These steps correspond to:

– Step 4: Evaluation of candidate RITs or SRITs by Independent Evaluation Groups.

– Step 5: Review and coordination of outside evaluation activities.

– Step 6: Review to assess compliance with minimum requirements.

– Step 7: Consideration of evaluation results, consensus building and decision.

The details of these steps are provided in Document IMT-2020/2(Rev.2).

# 3 Related text references

– Recommendation ITU-R M.2150 Detailed specifications of the terrestrial radio interfaces of International Mobile Telecommunications-2020 (IMT-2020)

– Report ITU-R M.2411 Requirements, evaluation criteria and submission templates for the development of IMT-2020

– Report ITU-R M.2410 Requirements related to technical performance for IMT-2020 radio interface(s)

– Report ITU-R M.2412 Guidelines for evaluation of radio interface technologies for IMT-2020

– Report ITU-R M.2483-0 [The outcome of the evaluation, consensus building and decision of the IMT-2020 process (Steps 4 to 7), including characteristics of IMT-2020 radio interfaces](https://www.itu.int/net4/ITU-T/search/api/redirection?dest=http%3A%2F%2Fhandle.itu.int%2F11.1002%2Fpub%2F8164d123-en%3Flocatt%3Did%3A0&position=10&page=1)

– Document IMT-2020/2(Rev.2) Submission and evaluation process and consensus building for IMT-2020

– Document IMT-2020/57 Procedure for the development of draft revisions
of Recommendation ITU-R M.2150-0

– Document IMT-2020/58rev.1 Schedule for ‘Revision after year 2021’ of
Recommendation ITU-R M.2150

– Resolution ITU-R 65 Principles for the process of development of IMT for 2020 and beyond

## 3.1 List of acronyms and abbreviations

IMT International Mobile Telecommunications

RIT Radio interface technology

SRIT Set of radio interface technologies

# 4 Summary of submission

Following the guidelines of the IMT-2020 process, the candidate technology submission accepted by ITU-R under Step 3[[2]](#footnote-2) was reviewed and the following was acknowledged as “complete” **[[3]](#footnote-3)** candidate technology submission as per § 5 of Report ITU-R M.2411:

– [IMT-2020/76](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0076)– ACKNOWLEDGEMENT OF CANDIDATE RIT SUBMISSION FROM NUFRONT UNDER STEP 3 OF THE IMT-2020 PROCESS

For convenience, this submission is attached to Annex 1 of this Report.

# 5 Conclusion for Steps 4 to 6

## 5.1 Results of Steps 4, “Evaluation of candidate RITs or SRITs by Evaluation Groups” and Step 5, “Review and coordination of outside evaluation activities”

Under Step 4 of IMT-2020 process, candidate technology submission from “Nufront Proponent” was evaluated by Independent Evaluation Groups (IEG) that registered with the ITU-R in conformance with the process. In this step, the candidate technology submission was evaluated based on Reports ITU-R [M.2411](https://www.itu.int/pub/R-REP-M.2411) and ITU‑R [M.2412](https://www.itu.int/pub/R-REP-M.2412).

An [Evaluation Group discussion area for “Revision after the year 2021” of M.2150](https://extranet.itu.int/itu-r/imt2020-rev-after-2021-evalgroup/SitePages/Home.aspx) was opened during Step 4 between March 2022 and October 2022 to facilitate activities among IEGs and the proponents, and among IEGs.

Six IEGs engaged in evaluation of the candidate technology submission. The list of those IEGs is as following:

* [5GIF Independent Evaluation Group (5GIF-IEG)](https://www.itu.int/oth/R0A060000B3/en)
* [5GMF IMT-2020 Evaluation Group](https://www.itu.int/oth/R0A060000B1/en)
* [ATIS WTSC IMT-2020 Evaluation Group](https://www.itu.int/oth/R0A060000AF/en)
* [Beijing National Research Center for Information Science and Technology (BNRist EG)](https://www.itu.int/oth/R0A060000B2/en)
* [Canadian Evaluation Group](https://www.itu.int/oth/R0A060000B0/en)
* [Wireless World Research Forum ​](https://www.itu.int/oth/R0A060000AE/en)(WWRF)

The evaluation reports received from four of these registered IEGs were considered by ITU-R under Steps 4 and 5, as appropriate. These evaluation reports are included in Annex 2 of this Report.

The list of the final evaluation reports of the IEGs and a summary of the mapping of the candidate technology submission is shown in Table 1.

Table 1

Index of documents related to IEG Final Evaluation Reports
for the Candidate Technology Submission of IMT-2020/76
Under Step 4

|  |  |
| --- | --- |
| [**IMT-2020/85**](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0085) | **Summary of Step 4 of the IMT-2020 Process for Evaluation of IMT-2020 Candidate Technology Submission** [**IMT-2020/76**](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0076) |
|  |
| **RegisteredIndependent Evaluation Group/summary** | **Summary of IEG Evaluation Results** | **Based on or References IEG Contributions Docs. 5D/** | **Evaluation Reports History Documents** |
| [5GIF Independent Evaluation Group (5GIF-IEG)](https://www.itu.int/oth/R0A060000B3/en)  | [IMT-2020/81](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0081) | [5D/1462](https://www.itu.int/md/R19-WP5D-C-1462/en) | [IMT-2020/79](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0079) |
| [5GMF IMT-2020 Evaluation Group](https://www.itu.int/oth/R0A060000B1/en)  | [IMT-2020/82](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0082) | [5D/1412](https://www.itu.int/md/R19-WP5D-C-1412/en) | [IMT-2020/77 Rev1](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0077) |
| [Beijing National Research Center for Information Science and Technology (BNRist EG)](https://www.itu.int/oth/R0A060000B2/en)  | [IMT-2020/83](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0083) | [5D/1529](https://www.itu.int/md/R19-WP5D-C-1529/en) | [IMT-2020/80](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-080) |
| [Wireless World Research Forum](https://www.itu.int/oth/R0A060000AE/en)  | [IMT-2020/84](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0084) | [5D/1492](https://www.itu.int/md/R19-WP5D-C-1492/en) | [IMT-2020/78 Rev1](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0078) |

The IEGs utilized the defined ITU-R evaluation methodology and criteria established in the relevant ITU-R Reports covering IMT-2020. ITU-R concluded that the IEGs had fulfilled their role in the process and that the inclusion of views from organizations external to the ITU‑R had been useful to the work on IMT-2020 and had contributed to the IMT-2020 process.

Considering the requirements, evaluation criteria and submission templates for the development of IMT-2020 included in [Report ITU-R M.2411](https://www.itu.int/pub/R-REP-M.2411), the minimum requirements related to technical performance for IMT‑2020 radio interface(s) included in Report ITU-R [M.2410](https://www.itu.int/pub/R-REP-M.2410), and the guidelines for evaluation of radio interface technologies for IMT‑2020 included in [Report ITU‑R [M.2412](https://www.itu.int/pub/R-REP-M.2412)](https://www.itu.int/pub/R-REP-M.2412), the following conclusions have been reached.

### 5.1.1 Summary of the evaluations received for the candidate RIT submission (Document IMT-2020/76) from Nufront

There were four relevant final evaluation reports received for Nufront in IMT-2020/76, in which the received evaluation reports indicated that,

* + The final evaluation report from 5GIF was of the opinion that the candidate technology does not meet the minimum requirements to satisfy the eMBB, URLLC, as well as mMTC scenarios.
	+ The final evaluation report from 5GMF was of the opinion that the candidate technology does not meet the minimum requirements for Indoor Hotspot-eMBB, Dense Urban-eMBB and Urban Macro – URLLC
	+ The final evaluation report from BNRist was of the opinion that the candidate technology in Document IMT-2020/76 meets the minimum requirements of all required test environments.
	+ The final evaluation report from WWRF was of the opinion that the candidate technology does not meet the minimum requirements for Reliability in Urban-macro URLLC for Uplink & Downlink and Connection density in Urban Macro mMTC for Configuration A.

TABLE 2

Summary of the evaluations received for the candidate RIT submission (Document IMT-2020/76) from Nufront

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test environment** | **Does the evaluation report indicate that the minimum technical performance requirements are met in the test environment?**Yes: all technical performance requirements are met.No: at least one technical performance requirement is not met. | **5GIF** | **5GMF** | **BNRist** | **WWRF** |
| Indoor Hotspot – eMBB | No | No | Yes |  |
| Dense Urban – eMBB | No | No | Yes |  |
| Rural – eMBB | No |  | Yes |  |
| Urban Macro – mMTC | No |  | Yes | No |
| Urban Macro – URLLC | No | No | Yes | No |

#### 5.1.1.1 References to evaluation reports for the candidate RIT submission (Document IMT-2020/76) from Nufront

The ITU-R views of the relevant evaluation reports from the IEGs and the individual IEG analyses for the Nufront technology, are included in Annex 2 of this Report, are as follows:

**–** [**IMT-2020/81**](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0081) **-** Evaluation by [5GIF Independent Evaluation Group (5GIF-IEG)​](https://www.itu.int/oth/R0A060000B3/en)  of IMT-2020 candidate technology submission in Document(s) IMT-2020/76

**–** [**IMT-2020/82**](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0082)**-** Evaluation by [5GMF IMT-2020 Evaluation Group​](https://www.itu.int/oth/R0A060000B1/en) of IMT-2020 candidate technology submission in Document(s) IMT-2020/76

**–** [**IMT-2020/83**](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-083) **-** Evaluation by Beijing National Research Center for Information Science and Technology (BNRist EG) of IMT-2020 candidate technology submission in Document(s) IMT-2020/76

**–** [**IMT-2020/84**](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0084) **-** Evaluation by Wireless World Research Forum of IMT-2020 candidate technology submission in Document(s) IMT-2020/76

Also, the document IMT-2020/85 provides composite summary tables of the detailed information based on the above final evaluation reports.

**–** [**IMT-2020/85**](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0085) - Summary of Step 4 of the IMT-2020 Process for Evaluation of IMT-2020 Candidate Technology Submission IMT-2020/76

### 5.1.2 Summary of Step 5 (Review and coordination of outside evaluation activities) for the candidate RIT submission (Document IMT-2020/76) from Nufront

In step 5 of the IMT-2020 process, WP 5D acts as the focal point for coordination between the various independent evaluation groups and monitors the progress of the evaluation activities, and provides appropriate responses to problems or requests for guidance to facilitate consensus building. In this step, coordination activities included that:

**5D/1078 Chapter 5 ( February-March 2022)**

* Working Party 5D received a new technology proposal from Nufront ([5D/979](https://www.itu.int/md/R19-WP5D-C-0979/en)). SWG IMT Specifications reviewed the proposal and confirmed that it was a “complete” submission per Section 5 of Report [ITU-R M.2411](https://www.itu.int/pub/R-REP-M.2411). The meeting agreed that this candidate technology proposal had accomplished Step 3 of the submission and evaluation process for New Technology Proposals for the revision ‘after year 2021’.
* Sub-Working Group Evaluation started to review the technology proposal under Step 4 of the process. **The Proponent Nufront was invited to introduce its technology proposal with some details, in particular on the key changes when comparing to the detailed technical specifications of an earlier submission of candidate technology proposal by Nufront.** To facilitate evaluation of this proposal, the meeting discussed and agreed to a number of arrangements, such as provision of further supplementary information of key changes, evaluation discussion area on designed webpage, workshop, etc. Potential Independent Evaluation Groups (IEGs) were requested to register with ITU-R no later than 19 April 2022.

**5D/1078 Chapter 5 Annex 5.2 ( February-March 2022)**

“To facilitate understanding of the current submission, the meeting also invited the Proponent introducing some details of the new candidate technology, particularly on the changes and improvements from its prior detailed technical specification. There were also discussions on how such information can be reached by Independent Evaluation Groups and interested parties. The conclusion from the meeting was that the initial materials provided by the Proponent in the meeting are included in the ‘submission history’ Document, IMT-2020/75. **Also, the meeting requested the Proponent to provide further ‘supplementary information’ indicating the key changes (i.e., ‘change record’) on the new detailed EUHT-5G technical specifications aligned with the current submission from the prior detailed technical specifications for the earlier version of EUHT-5G to assist the following evaluation activities, by 15th March 2022**. It was confirmed with WP 5D counsellor that Evaluation Discussion area on the WP 5D webpage is designated to post such advanced version, which will also be an input contribution to the WP 5D meeting #41. **Furthermore, the meeting suggested the Proponent to have a workshop with arrangement available on the designated webpage no later than 15th March.** The designated webpage and Evaluation Group discussion area towards the new candidate technology submission ‘after 2021’on the WP 5D webpage will be available/open after the meeting. “

**5D/1361 Chapter 5 (June -July 2022)**

* **The proponent Nufront provided supplementary information of the EUHT-5G candidate technology submission, which indicates the key changes (change record) in the new detailed technical specifications** comparing to the specifications submitted to the previous IMT-2020 candidate technology evaluation process ended in October 2021. It was decided to update the Doc. [IMT‑2020/75](https://www.itu.int/md/R15-IMT.2020-C-0075/en) to include the information.
* The registered Independent Evaluation Groups (IEGs) provided contributions and information on their evaluation progresses and status. **Among them, 5GMF and WWRF provided interim evaluation reports to this meeting.** Two IMT-2020 documents were created to record the respective reports (Docs [IMT-2020/77](https://www.itu.int/md/R15-IMT.2020-C-0077/en) and [IMT-2020/78](https://www.itu.int/md/R15-IMT.2020-C-0078/en)).
* ITU-R WP 5D also discussed next steps and future activities of the evaluation process. A draft liaison statement to all the registered IEGs and the proponent was developed with information of work progress at this WP 5D meeting and future activities, **including a proposal of “Step 5 Consultation Event” that could be organized outside of WP 5D to further facilitate the evaluation work**.

**5D/1441 (September 2022)**

* **Following the discussions held during the 41st meeting of Working Party (WP) 5D and as stated in the Liaison Statement To Independent Evaluation Groups And “Nufront Proponent”** (Document 5D/TEMP/700-E)**[[4]](#footnote-4), the six IEGs engaged** in the ‘After Year 2021’ evaluation of the new candidate technology submission [IMT-2020/76](https://www.itu.int/md/R15-IMT.2020-C-0076/en) from “Nufront Proponent” (namely, 5G India Forum (5GIF); The Fifth Generation Mobile Communications Promotion Forum, Japan; ATIS WTSC; Beijing National Research Center for Information Science and Technology (Bnrist EG); Canadian Evaluation Group; Wireless World Research Forum) **continued their interactions with the Proponent Nufront.**

## 5.2 Results of Step 6, “Review to assess compliance with minimum requirements”

Under Step 6 of the IMT-2020 process and guidelines, an assessment of each proposal was made as to whether it met a version of the minimum technical requirements and evaluation criteria of the IMT‑2020 process in force as described in Report ITU-R [M.2411](https://www.itu.int/pub/R-REP-M.2411). The evaluation methodology is described in Report ITU-R [M.2412](https://www.itu.int/pub/R-REP-M.2412). The version of the minimum technical requirements used is described in Report ITU-R [M.2410](https://www.itu.int/pub/R-REP-M.2410).

In this step, the evaluated proposal for a RIT/SRIT is assessed as a qualifying RIT/SRIT, if a RIT/SRIT fulfils the minimum requirements for the five test environments comprising the three usage scenarios.

Such a qualified RIT/SRIT will go forward for further consideration in Step 7.

Based on a review of the evaluations carried out by the IEGs as well as the self-evaluations from the proponents, the conclusions of the ITU-R for Step 6 are presented in the following sub-sections. Thus, the summary view of the evaluations indicated in § 5.1 are directly relevant to this assessment.

### 5.2.1 Results of assessment in Step 6 for the candidate RIT submission (Document IMT‑2020/76) from Nufront Proponent

1. The evaluations from IEGs and proponents represent the different results (Yes or No) for each test environment(Indoor Hotspot-eMBB, Dense Urban-eMBB, Rual-eMBB, Urban Macro-mMTC, Urban Macro-URLLC), that leads to different views whether this candidate technology from IMT-2020/76 meets or does not meet the minimum requirements for the five test environments comprising the three usage scenarios

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test environment** | **Does the evaluation report indicate that the minimum technical performance requirements are met in the test environment?**Yes: all technical performance requirements are met.No: at least one technical performance requirement is not met. | **5GIF** | **5GMF** | **BNrist** | **WWRF** |
| Indoor Hotspot – eMBB | No | No | Yes |  |
| Dense Urban – eMBB | No | No | Yes |  |
| Rural – eMBB | No |  | Yes |  |
| Urban Macro – mMTC | No |  | Yes | No |
| Urban Macro – URLLC | No | No | Yes | No |

1. These evaluation results when taken together, demonstrates the candidate technology from IMT-2020/76 does not meet the minimum requirements for all the five test environments comprising the three usage scenarios.
2. This candidate technology from IMT-2020/76 cannot be declared as a qualified RIT.
3. Consequently, the candidate technology from IMT-2020/76 cannot go forward for further consideration in Step 7 of the IMT-2020 process.

## 5.3 Result of Step 7, “Consideration of evaluation results, consensus building and decision”

### 5.3.1 Consideration of evaluation results

“NOT APPLICABLE” - Candidate technology does not move forward to this Step

### 5.3.2 Consensus building and decision

“NOT APPLICABLE” - Candidate technology does not move forward to this Step

# 6 Characteristics of the technologies and basis of the specifications for Step 8

In Step 8, a (set of) IMT-2020 terrestrial component radio interface Recommendation(s) is (are) developed within the ITU-R based on the results of Step 7, sufficiently detailed to enable worldwide compatibility of operation and equipment, including roaming.

## 6.1 Detailed specifications for the radio interface technologies for IMT‑2020 in Step 8

“NOT APPLICABLE” - Candidate technology does not move forward to this Step

### 6.1.1 Characteristics of radio interface technologies for IMT-2020 in Step 8 for the candidate RIT submission (Document IMT‑2020/76) from Nufront

“NOT APPLICABLE” - Candidate technology does not move forward to this Step

Annex 1

Index of IMT-2020 documents for the RIT submission

|  |  |  |
| --- | --- | --- |
| **RIT/SRIT Proponent** | **Acknowledgement of submission(IMT-2020/YYY)** | **Submission history** |
| **Nufront** | Document [IMT‑2020/76](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0076) | ACKNOWLEDGEMENT OF CANDIDATE RIT SUBMISSION FROM NUFRONT UNDER STEP 3 OF THE IMT-2020 PROCESS | Document [IMT‑2020/75](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0075) rev.1 | SUBMISSION RECEIVED FOR PROPOSALS OF CANDIDATE RADIO INTERFACE TECHNOLOGIES FROM PROPONENT ‘NUFRONT’ UNDER STEP 3 OF THE IMT-2020 PROCESS |

Annex 2

Summary and details of Evaluation Reports from
Independent Evaluation Groups

[**IMT-2020/81**](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0081)

Evaluation by [5GIF Independent Evaluation Group (5GIF-IEG)​](https://www.itu.int/oth/R0A060000B3/en)  of IMT-2020 candidate technology submission in Document(s) IMT-2020/76

[**IMT-2020/82**](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0082)

Evaluation by [5GMF IMT-2020 Evaluation Group​](https://www.itu.int/oth/R0A060000B1/en) of IMT-2020 candidate technology submission in Document(s) IMT-2020/76

[**IMT-2020/83**](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0083)

Evaluation by Beijing National Research Center for Information Science and Technology (BNRist EG) of IMT-2020 candidate technology submission in Document(s) IMT-2020/76

[**IMT-2020/84**](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0084)

Evaluation by Wireless World Research Forum of IMT-2020 candidate technology submission in Document(s) IMT-2020/76

[**IMT-2020/85**](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-IMT.2020-C-0085)

Summary of Step 4 of the IMT-2020 Process for Evaluation of IMT-2020 Candidate Technology Submission IMT-2020/76

\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The dates established for this revision of Rec. ITU-R M.2150 shall be applied to the process/procedures referenced in Document IMT-2020/57 and shall also be applied for Document IMT-2020/2 (Rev 2), in lieu of specific dates previously indicated in the text of the document, as those dates were only applicable to the first release of IMT-2020. [↑](#footnote-ref-1)
2. As announced in Circular Letter [5/LCCE/94](https://www.itu.int/md/R00-SG05-CIR-0094/en) Addendum 1. [↑](#footnote-ref-2)
3. In the IMT-2020 process, an acknowledgement of a “complete” submission under Step 3 does not imply any conclusions on the results of the formal evaluation under Step 4 to 7. A submission is acknowledged as “complete” if it fulfilled, for that candidate technology submission, supplying all requested information in the format specified following the guidance of Report ITU-R M.2411 – Requirements, evaluation criteria and submission templates for the development of IMT-2020. [↑](#footnote-ref-3)
4. See Document [5D/1361 Chapter 7](https://www.itu.int/dms_ties/itu-r/md/19/wp5d/c/R19-WP5D-C-1361%21H7%21MSW-E.docx) Attachment 7.4 **Document 5D/TEMP/700.** [↑](#footnote-ref-4)