**3GPP TSG RAN Meeting #106 (DRAFT) RP-243272**

**Madrid, Spain, 9th – 12th December, 2024**

**Title:** DRAFT LTI Response to LS on Minimum requirements related to technical performance for IMT-2030 radio interface(s) (ITUR\_WP5D\_TEMP\_167

**Response to:**  LS on Minimum requirements related to technical performance for IMT-2030 radio interface(s) (ITUR\_WP5D\_TEMP\_167)

**To:**  ITU-R WP5D

**Cc:**

**Source:** Nokia

**Contact Person:**

#### Name: Matthew Baker

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**This ITU input will become part of ITU deliverable(s): no**

**Responsible 3GPP group for final output to ITU: 3GPP PCG**

**deadline for the final output to ITU: January 23rd, 2025 (16:00 hours UTC)**

**way to make this document available for ITU (see Art.51 of 3GPP working procedures):**

**[√] a. via OPs as a deliverable from their organizations (for PCG review only)**

**[ ]** **b.** **via Individual Members (for PCG or TSG review) coordinated by ITU sector convener**

**[.] c. via 3GPP LS coordinator (for TSG or WG review)**

**Attachments:** KPI definition

*------------ [remove upper part before submission to ITU in case a. and b. (Art.51)] -----------------*

**For 3GPP review:**

**in:** 3GPP TSG RAN **feedback LS before:** December 12, 2024 **to:** 3GPP SA

**in:** 3GPP TSG SA **feedback LS before:** December 13, 2024 **to:** 3GPP PCG

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**Overall description:**

<additional text to highlight aspects of the review, e.g. some specific actions>

*----------------- [remove 3GPP review part before submission to ITU] -----------------*

**[Alliance for Telecommunications Industry Solutions][[1]](#footnote-2)**

LS response on Minimum requirements related to technical performance for IMT-2030 radio interface(s)

3GPP TSG RAN would like to thank ITU-R WP5D for LS (5D/TEMP/167) on Minimum Requirements Related to Technical Performance for IMT-2030 Radio Interface(s), and for the chance to contribute to the discussion of candidate items for the Minimum Technical Performance Requirements (TPR).

3GPP TSG RAN is glad to inform ITU-R WP5D of their intent to initiate study into 6G scenarios, use cases and requirements [at its meeting #107 10th – 14th March 2025]/[and has approved a formal Study Item to that end, which is planned to be completed by their meeting #108 9th – 13th June 2025].

3GPP TSG RAN would hereby like to provide some initial input on aspects related to technical performance and evaluation for IMT-2030.

3GPP TSG RAN believes that the following would be essential candidate TPRs for IMT-2030:

1. Peak Data Rate
2. Peak Spectral Efficiency
3. User Experienced Data Rate
4. Average Spectral Efficiency
5. 5th percentile Spectral Efficiency
6. Area Traffic Capacity
7. User Plane Latency
8. Control Plane Latency
9. Connection Density
10. Energy Efficiency
11. Reliability
12. Mobility
13. Mobility Interruption Time
14. Bandwidth
15. Support of wide range of services
16. Supported spectrum band(s)/range(s)
17. Resilience (New)
18. Positioning (New)
19. Sensing (New)

3GPP TSG RAN would also like to mention that the TPRs will clearly be closely related to the evaluation scenarios. While the exact evaluation assumptions will of course require more discussion, 3GPP TSG RAN believes it is helpful to identify some of the elementary aspects early, to facilitate work on detailed TPRs and associated values.

The single most important evaluation assumption is carrier frequency. As many of the new frequency bands considered for IMT-2030 are located around 7 GHz (e.g. frequency ranges 6.425-7.125 and 7.125-8.4 GHz), a 7 GHz carrier frequency would be valuable to include in the set of evaluation assumptions for IMT-2030. A closely associated evaluation assumption is the bandwidth, for which 3GPP TSG RAN believes that 400 MHz and 200 MHz channel bandwidths should be considered in at least some evaluation scenarios, to align with a minimum bandwidth of 400 MHz.

3GPP TSG RAN will keep ITU-R WP5D proactively apprised of further developments, including the outcomes of 3GPP TSG RAN’s study, and very much looks forward to future co-operation with ITU-R WP5D on the TPRs and evaluation assumptions for IMT-2030.

1. Submitted on behalf of the 3GPP 5G-SRIT GCS Proponent (The *GCS Proponent* is collectively the 3GPP Organizational Partners (OPs) [http://www.3gpp.org/partners](http://www.3gpp.org/partners))). (Source PCG54\_yy) [↑](#footnote-ref-2)