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| **Radiocommunication Study Groups** |  |
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| Attachment 7.4 to Document 5D/360(Source: Document 5D/TEMP/219(Rev.2)) |  |
| **27 October 2020** |
| **English only** |
| Working Party 5D |
| LIAISON STATEMENT TO EXTERNAL ORGANIZATIONS**[[1]](#footnote-1)** |
| Future Technology Trends for the evolution of IMT towards 2030 and beyond |

Considering the successful accomplishments by ITU for the evolution of IMT-2000, IMT‑Advanced and IMT-2020, similar actions are proposed for the evolution of IMT towards 2030 and beyond. The approach taken for IMT‑Advanced evolution towards IMT-2020 was to start with the work on the Report [ITU-R M.2320](https://www.itu.int/pub/R-REP-M.2320-2014) entitled “Future technology trends of terrestrial IMT systems” (approved in 2014) to develop the evolution for IMT-Advanced. At its 34th meeting (19-26 February 2020), ITU‑R Working Party (WP) 5D decided to start study on future technology trends for the future evolution of IMT. It is planned for WP 5D to complete this study at the 41st WP 5D meeting in June 2022. A preliminary draft new Report ITU-R M.[IMT.FUTURE TECHNOLOGY TRENDS] will be developed and will consider related information from various external organizations and country/regional research programmes.

The scope of the new Report ITU-R M.[IMT.FUTURE TECHNOLOGY TRENDS] focuses on the following aspects:

*“This Report provides a broad view of future technical aspects of terrestrial IMT systems considering the time frame up to 2030 and beyond. It includes information on technical and operational characteristics of terrestrial IMT systems, including the evolution of IMT through advances in technology and spectrally-efficient techniques, and their deployment.”*

For the development of this report, WP 5D invites the views of External Organizations on future technology trends for terrestrial IMT systems, including but not limited to the motivation on driving factors such as new use cases, applications, capabilities, technology trends and enablers. These technical inputs are intended for the timeframe towards 2030 and beyond and are proposed to be significantly advanced and different from that of IMT-2020.

The draft structure of new Report ITU-R M.[IMT.FUTURE TECHNOLOGY TRENDS] is in Annex 1.

Working Party 5D kindly requests the External Organizations to share their information prior to the 38th meeting of WP 5D, 6-18 June 2021. The deadline for input contributions to the 38th meeting is 31 May 2021. It is noted that the 39th meeting of WP 5D is scheduled for 4-15 October 2021, and additional inputs will also be recognised during this meeting as well.

WP 5D looks forward to collaborating productively with External Organizations on this matter.

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| **Status:** For information and action |  |
| **Contact:** Mr. Uwe Lowenstein | **E-mail:** uwe.loewenstein@itu.int |

 Counsellor ITU-R SG5

ATTACHMENT 1

High Level Structure of the Working Document

Note: This structure is subject to adjustment going forward pending input from External Organizations and future contributions to ITU-R WP 5D

Introduction

Scope

Motivation on driving factors for future technology trends towards 2030 and beyond

Driving factors in the design of future IMT technology

Technology Trends and Enablers

Technologies to enhance the radio interface

Technologies to enhance radio network performance and precision

Technologies for native AI based communication

Technologies to enhance service coverage

Technologies to enhance privacy and security

Technologies for integrated sensing and communication

Technologies for integrated terrestrial and non-terrestrial communications

Technologies for integrated access and super sidelink communications

Technologies to enhance adaptability and sustainability

Technologies for efficient spectrum utilization

Terminal technologies

Technologies to support a wide range of new use cases and applications

Summary and Conclusion

Acronyms, Terminology, Abbreviations

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1. 3GPP, 5G Automotive Association, 79 GHz Project, ARIB, ATIS, AWG, C2C‑CC, CCSA, CEPT ECC, C-Roads, ETSI ISG MEC, ETSI TC ERM, ETSI TC ITS, ETSI TC MSG, GSA, IEEE, IETF ITS, ISO TC 204, ITRI, MFA, SAE C-V2X TC, TEC, TIA, TSDSI, TTA, Wi-Fi Alliance [↑](#footnote-ref-1)