

RESOLUTION 62 (Rev. Baku, 2025)

Assessment and measurement of human exposure to electromagnetic fields

The World Telecommunication Development Conference (Baku, 2025),

recalling

a) Resolution 176 (Rev. Bucharest, 2022) of the Plenipotentiary Conference, on measurement and assessment concerns related to human exposure to electromagnetic fields (EMF);

b) Resolution 72 (Rev. New Delhi, 2024) of the World Telecommunication Standardization Assembly, on measurement and assessment concerns related to human exposure to EMF, which calls for close cooperation among the Directors of the three Bureaux to implement the resolution within the available financial resources in view of its importance to developing countries¹,

considering

that the World Health Organization (WHO) has issued fact sheets on EMF based on the work of the International Commission on Non-Ionizing Radiation Protection (ICNIRP),

recognizing

a) that some publications and information about EMF effects on health address questions to the ITU Telecommunication Standardization Sector (ITU-T), the ITU Radiocommunication Sector (ITU-R) and the ITU Telecommunication Development Sector (ITU-D), in particular for developing countries;

¹ These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

- b) that the effect on humans of EMF from handheld devices and other radio-frequency devices used in close proximity to the human body, such as wearables, continues to receive public attention, and use of such devices may expose the user to stronger EMF levels than to those radiated by a base station;
- c) that the cost of the advanced equipment used for measuring, assessing and monitoring human exposure to EMF is very high and difficult for many developing countries to afford;
- d) that implementing such assessment is essential for many regulatory authorities in developing countries, in order to monitor the limits for human exposure to radio-frequency energy, and that they are called upon to ensure that those limits are met in order to license different services;
- e) the work of ITU-T Study Group 5 on this issue under Question 3/5 (Assessment of human exposure to EMF), including the updating of practical and affordable guidelines to help developing countries deal with this issue effectively;
- f) the work of ITU-R Study Group 1 under Question 239/1 and Report ITU-R SM.2452, on measurement techniques to assess human exposure from wireless installations and presenting the measurement results;
- g) the creation of the new EMF guide and mobile application launched by ITU, which provides information and education resources on EMF suitable for all communities, stakeholders and governments, especially in developing countries;
- h) a lack of public understanding and widespread misconceptions about the impact of EMF exposure,

resolves to instruct the Director of the Telecommunication Development Bureau

in response to the needs of the developing countries and consistent with the substance of Resolution 72 (Rev. New Delhi, 2024), and in recognition of the complementary relationship between ongoing work on EMF studies in ITU-T and ITU-R:

- 1 to give the necessary priority to this subject and, within the available resources, allocate the necessary funds for expediting execution of this resolution;
- 2 to conduct international and regional seminars and workshops to identify the needs of developing countries and to build human capacity in regard to EMF exposure assessment expertise, including EMF absorption metrics such as the specific absorption rate (SAR);
- 3 to ensure that those responsible for ITU-D outcomes under the thematic priority of inclusive, safe and secure telecommunication/ICT infrastructure and services in the strategic plan for the Union for 2024–2027 determine the requirements of developing countries and their regulatory authorities (at regional level) in relation to this resolution, contribute to studies on this subject, take an active part in the work of the relevant ITU-R and ITU-T study groups, and submit written contributions on the results of their work in this regard, plus any proposals they deem necessary, to ITU-D Study Group 2;
- 4 to provide the necessary assistance to Member States, in particular developing countries, by supplying them with measurement methods for assessing human electromagnetic exposure, including methods to manage the risk perception by the public;
- 5 to foster the exchange of experiences and best practices in connection with the challenges and opportunities of developing technical regulations on the adoption of limits for reference levels of non-ionizing electromagnetic radiation from radio-frequency stations, as well as SAR levels;
- 6 to establish and maintain dialogue among all interested parties, such as civil society, authorities, industry, the scientific community, associations and the media, in order to provide support for measuring human exposure to EMF, and to adopt a regulatory framework on the reference levels for persons on the basis of the technical specifications drawn up by the international bodies specializing in human health and protection against non-ionizing radiation;

7 to promote the EMF Estimator software that implements the methodology described in Recommendation ITU-T K.70, in particular the calculation of the cumulative radio-frequency exposure levels in the vicinity of transmitting antennas;

8 to implement projects under the United Nations development systems or arrangements funded by international financial institutions and donor agencies to facilitate assessment of non-ionizing radiations and investigations/research in developing countries;

9 to continue to collaborate with ITU-T and ITU-R in developing guidelines on the assessment of human exposure to EMF from all kinds of telecommunication/ICT sources, especially emerging technologies,

invites Study Group 2 of the ITU Telecommunication Development Sector

within the framework of its study Questions, to cooperate with ITU-T Study Group 5 and ITU-R Study Groups 1, 4, 5 and 6, as concerned, in order to achieve the following goals:

- i) to update the ITU EMF guide and mobile application, including information on various wireless equipment/sources of EMF, and the guidance on its implementation, as a matter of high priority;
- ii) contribute to the organization of seminars, workshops or training on the subject of EMF;
- iii) ensure wide dissemination of ITU publications and literature on EMF issues in cooperation with ITU-R and ITU-T;
- iv) continue to cooperate with WHO, ICNIRP, the Institute of Electrical and Electronics Engineers and other relevant international organizations on guidelines and limits of human exposure to EMF, and to raise awareness and disseminate information to the membership and the public with regard to human exposure to EMF,

invites Member States

- 1 to conduct a periodic review concerning the performance of the operators and mobile equipment and other wearable radio-frequency/Internet-of-Things device manufacturers in this field to verify that they are following the national specifications or ITU recommendations, in order to ensure the safe use of EMF;
- 2 to address public awareness on EMF exposures below the recommended limits with a view to mitigating concerns about the effects of EMF;
- 3 to take appropriate measures, referencing international standards for assessing exposure to EMF, and deploy successful solutions, including regulations;
- 4 to continue to cooperate through the exchange of experts and the organization of seminars, specialized workshops and meetings;
- 5 to adopt international standards for measuring and assessing EMF levels, and use effective methods for verifying compliance,

encourages members from academia and ITU Academy training centres

to participate actively in the work under this resolution through the submission of contributions and proposals.