

RESOLUTION 43 (Rev. Buenos Aires, 2017)

Assistance in implementing International Mobile Telecommunications and future networks

The World Telecommunication Development Conference (Buenos Aires, 2017),

recalling

- a) Resolution 15 (Rev. Buenos Aires, 2017) of this conference, on applied research and transfer of technology;
- b) Resolution 200 (Busan, 2014) of the Plenipotentiary Conference, on the Connect 2020 Agenda for global telecommunication/information and communication technology (ICT) development;
- c) Resolution 59 (Rev. Buenos Aires, 2017) of this conference, on strengthening coordination and cooperation among the three ITU Sectors on matters of mutual interest;
- d) Resolution 135 (Rev. Busan, 2014) of the Plenipotentiary Conference, on ITU's role in the development of telecommunications/ICTs, in providing technical assistance and advice to developing countries¹ and in implementing relevant national, regional and interregional projects;
- e) Resolution 178 (Guadalajara, 2010) of the Plenipotentiary Conference, on ITU's role in organizing the work on technical aspects of telecommunication networks to support the Internet;
- f) Resolution ITU-R 23 (Rev. Geneva, 2015) of the Radiocommunication Assembly (RA), on extension of the international monitoring system to a worldwide scale;
- g) Resolution ITU-R 50 (Rev. Geneva, 2015) of RA, on the role of the Radiocommunication Sector (ITU-R) in the ongoing development of International Mobile Telecommunications (IMT);
- h) Resolution ITU-R 56 (Rev. Geneva, 2015) of RA, on naming for IMT;

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

- i)* Resolution ITU-R 57 (Rev. Geneva, 2015) of RA, on principles for the process of development of IMT-Advanced;
- j)* Resolution ITU-R 65 (Rev. Geneva, 2015) of RA, on principles for the process of future development of IMT for 2020 and beyond;
- k)* Resolution 238 (WRC-15) of the World Radiocommunication Conference (WRC), on studies on frequency-related matters for IMT identification, including possible additional allocations to the mobile services on a primary basis in portion(s) of the frequency range between 24.25 and 86 GHz for the future development of IMT for 2020 and beyond;
- l)* Recommendation 207 (Rev.WRC-15) of WRC, on future IMT systems;
- m)* Resolution 92 (Hammamet, 2016) of the World Telecommunication Standardization Assembly (WTSA), on enhancing the standardization activities in the ITU Telecommunication Standardization Sector (ITU-T) related to non-radio aspects of IMT;
- n)* Resolution 93 (Hammamet, 2016) of WTSA, on interconnection of 4G, IMT-2020 networks and beyond,

considering

- a)* the tremendous growth of data traffic and expansion of IMT networks, and the continuous need to promote the use of IMT throughout the world, particularly in developing countries;
- b)* the important role of ITU in contributing to the standardization and harmonized use of IMT, which will promote global broadband connectivity and accelerate the uptake of advanced mobile applications and services;
- c)* that IMT systems have contributed to global economic and social development, and are intended to provide telecommunication services on a worldwide scale, regardless of location, network or terminal used;
- d)* that IMT-2020 will be utilized widely in the near future to build a connected smart society and information ecosystem, and will make a positive and important contribution to the United Nations Sustainable Development Goals (SDGs);
- e)* that ITU-R and ITU-T are actively continuing their studies on standardization and development of mobile communication systems, overall network aspects of IMT and future networks;

- f)* that the ITU-T and ITU-R study groups have had, and continue to have, effective informal coordination via liaison activity with respect to the development of Recommendations relating to IMT and future networks;
- g)* that the ITU-R Handbook on Global Trends in International Mobile Telecommunications defines IMT and provides general guidance to relevant parties on issues related to the deployment of IMT systems and for the introduction of their IMT-2000 and IMT-Advanced networks;
- h)* that the ITU Telecommunication Development Sector (ITU-D) study groups of the are currently involved in activities closely coordinated with ITU-T Study Groups 11 and 13 and ITU-R Study Group 5 in order to identify the factors influencing the effective development of broadband, including IMT and future networks, for developing countries;
- i)* that IMT systems are now being evolved to provide diverse usage scenarios and applications such as enhanced mobile broadband, massive machine-type communications and ultra-reliable and low-latency communications, and a substantial number of countries have started implementing these;
- j)* that ITU-T Study Group 13 initiated the study of non-radio aspects of IMT-2020 and future networks;
- k)* that many aspects of the research and development of designs for IMT and future networks are linked to big data, cloud computing and fog computing;
- l)* the need to develop relevant documents on the smooth transition of existing mobile networks to IMT-2020 and a handbook on deployment of IMT-2020 systems;
- m)* the increasing global reliance on the use of IMT to support the achievement of, among other objectives, the 17 SDGs adopted in Resolution 70/1 of the United Nations General Assembly, particularly in key sectors such as health, agriculture, finance and education;
- n)* the positive impact of IMT and future networks on economic development and improvement of communication as well as social inclusion;
- o)* the very important role of IMT and future networks in broadband services and the crucial role of IMT-2020 for new services;

p) that IMT-2020 will provide many very important benefits to developing countries (such as smart transportation systems to prevent traffic accidents, remote surgery with e-health, augmented/virtual reality-based e-learning, smart energy, smart water management, smart agriculture, new innovative applications for persons with disabilities and persons with specific needs, etc.), and successful planning and deployment of IMT-2020 is very important;

q) that ITU has successfully focused on the promotion of IMT during the last 16 years, coverage of these networks having reached 84 per cent of the world's population in 2016, and that it is important for ITU-D to include IMT-2020 in the next four-year period, the other two Sectors, ITU-R and ITU-T, having already prioritized IMT-2020;

r) the need for assistance to developing countries to provide high-speed and high-quality mobile broadband in those countries, insofar as developed and developing countries are using the same mobile broadband technologies but there are very important differences between the mobile data speeds and service qualities;

s) the need for assistance for affordable mobile broadband and widespread usage by all people and sectors,

noting

a) the excellent work of the relevant ITU-R and ITU-T study groups in this regard;

b) the handbooks for deployment of IMT systems prepared jointly by the three Sectors and their subsequent supplements adopted by ITU-R and ITU-T;

c) the adoption by this conference of Question 1/1,

recognizing

a) that deploying IMT in low-frequency bands has benefited operators in providing service in wider areas, as well as enabling investment efficiency and competitive prices for wireless broadband services in developing countries;

b) that developing and developed countries should cooperate through exchanges of experts, the organization of seminars, specialized workshops and meetings relating to the deployment of IMT and future networks;

- c) that Member States, especially developing countries, would require continued assistance in the adoption of IMT technologies and systems that meet their national requirements and needs;
- d) that the emerging Internet of Things (IoT) applications have resulted in a rapid increase in the number of devices accessing the telecommunication network which, in turn, makes the need to coordinate work among the three Sectors in implementing IMT throughout the world more pressing;
- e) that there are many issues to consider in deploying IMT and future networks, such as suitable IMT technologies, frequency-band harmonization and strategic planning;
- f) that ITU-T Recommendations to address network architectures, roaming principles, numbering issues, charging and security mechanisms as well as interoperability and conformance testing for interconnection of IMT and future networks and beyond shall be progressed as quickly as possible,

resolves

- 1 to include support for implementation aspects of IMT, including suitable IMT technologies, a transition roadmap, frequency-band harmonization and re-planning of certain frequency bands to facilitate deployment of IMT, including the technologies currently used, and support for their implementation as a priority in the action plan adopted by this conference for developing countries;
- 2 to include support for ITU work on the deployment of IMT and future networks in developing countries in the action plan and the work plans of ITU study groups:
 - i) ITU-R study groups: in the area of development of suitable technologies, a transition roadmap, frequency-band definition and harmonization and re-planning of certain frequency bands to facilitate deployment, including the technologies currently used;
 - ii) ITU-T study groups: in the area of standardization of non-radio aspects of network management, protocols and interoperability, quality of service, future networks, transport, fronthaul/backhaul and security,

instructs the Director of the Telecommunication Development Bureau

in close collaboration with the Directors of the Radiocommunication Bureau (BR) and the Telecommunication Standardization Bureau (TSB), as well as the relevant regional telecommunication organizations:

- 1 to continue to involve the membership in activities to define and establish priorities with regard to challenges pertaining to the deployment of IMT and future networks, especially in developing countries;
- 2 to provide assistance to developing countries in their planning and optimization of spectrum usage for the medium to long term for the implementation of IMT, taking into account national and regional specificities and needs;
- 3 to continue encouraging and assisting developing countries to implement IMT systems and future networks using the relevant ITU Recommendations and studies carried out by the ITU study groups, taking into account the need to protect existing services;
- 4 to devote particular attention to work on questions related to the technologies and the radiocommunication standards recommended by ITU, in order to meet national requirements for the implementation of IMT in the short, medium and long term, with a view to encouraging the use of harmonized spectrum and associated band plans and standards to achieve economies of scale;
- 5 to disseminate as widely as possible the above-mentioned guidelines and amendments thereto, which are recommended to be used for the evolution of existing networks to IMT-2020 and future networks;
- 6 to provide assistance to administrations on the use and interpretation of ITU Recommendations relating to IMT and future networks adopted by both ITU-R and ITU-T;
- 7 to conduct seminars, workshops or training on strategic planning for the transition from networks operated primarily to IMT and future networks, taking into account specific national and regional requirements and characteristics;
- 8 to promote the exchange of information among international organizations, donor countries and recipient countries on upgrading to and deploying IMT-Advanced/IMT-2020 systems in certain frequency bands used by previous-generation IMT (particularly those operated below 2 GHz);

- 9 to provide expert advice on the creation of roadmaps for the evolution of IMT;
- 10 to encourage administrations to take heed of Reports ITU-R M.2078, ITU-R M.2290 and ITU-R M.2370 as well as Recommendation ITU-R M.2083, by making available a sufficient quantity of spectrum to enable the proper development of IMT, including IMT-2020, with the aim of expanding the provision of mobile-broadband services in an efficient manner;
- 11 to support projects and training on the use of IMT and future networks in key sectors, including health, finance, education and public safety, among others, through strategic partnerships;
- 12 to take into account the results of the work under Question 1/1 in relevant BDT programmes, that are components of the toolkit BDT uses when solicited by Member States and Sector Members in order to support their efforts to build broadband and deploy IMT networks,

invites the study groups of the ITU Telecommunication Development Sector

- 1 to take into account the contents of this updated resolution when conducting studies, and to maintain close cooperation in this matter with ITU-R study groups;
- 2 to take into account the decisions of RA-15, WRC-15 as well as WTSA-16 when implementing this resolution;
- 3 to take into account the importance of transition to IMT-2020;
- 4 to take into account the challenges to enhancing mobile-broadband services, including the need for greater data speeds, service quality and affordability in developing countries,

encourages Member States

to provide all possible support for the implementation of this resolution and for the future work on studies relating to the relevant Questions.