RESOLUTION 47 (Rev. Buenos Aires, 2017)

Enhancement of knowledge and effective application of ITU Recommendations in developing countries[1], including conformance and interoperability testing of systems manufactured on the basis of ITU Recommendations

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

recalling

a) Resolution 139 (Rev. Busan, 2014) of the Plenipotentiary Conference, on use of telecommunications/information and communication technologies (ICTs) to bridge the digital divide and build an inclusive information society;

b) Resolution 123 (Rev. Busan, 2014) of the Plenipotentiary Conference, on bridging the standardization gap between developing and developed countries;

c) Resolution 15 (Rev. Buenos Aires, 2017), of this conference, on applied research and transfer of technology;

d) Resolution 37 (Rev. Buenos Aires, 2017) of this conference, on bridging the digital divide;

e) Resolution 40 (Rev. Buenos Aires, 2017) of this conference, on the Group on capacity-building initiatives (GCBI),

considering

a) that Resolution 123 (Rev. Busan, 2014) instructed the Secretary-General and the Directors of the three Bureaux to work closely with each other to bridge the standardization gap between developing and developed countries;

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

b) that Resolution 177 (Rev. Busan, 2014) of the Plenipotentiary Conference, on conformance and interoperability (C&I), calls to assist developing countries in establishing regional or subregional C&I centres suitable to perform C&I testing, as appropriate and according to their needs;

c) that the same resolution considered the importance, especially to developing countries, that ITU take a leading role in the implementation of the ITU C&I programme, with the ITU Telecommunication Standardization Sector (ITU-T) taking lead responsibility for Pillars 1 and 2, and the ITU Telecommunication Development Sector (ITU-D) for Pillars 3 and 4;

d) the action plan of the C&I programme as updated at the 2013 session of the ITU Council, the pillars of which are 1) Conformity assessment, 2) Interoperability events, 3) Capacity building, and 4) Establishment of test centres and C&I programme in developing countries;

e) that Resolution 200 (Busan, 2014) of the Plenipotentiary Conference, on the Connect 2020 Agenda for global telecommunication/ICT development, endorses a shared global vision for the development of the telecommunication/ICT sector, under the "Connect 2020" agenda, envisaging "an information society, empowered by the interconnected world, where telecommunications/ICTs enable and accelerate social, economic and environmentally sustainable growth and development for everyone";

f) that Resolution 197 (Busan, 2014) of the Plenipotentiary Conference, on facilitating the Internet of Things (IoT) to prepare for a globally connected world, takes into account that interoperability is obligatory to prepare services stemming from IoT worldwide, to the extent practicable;

g) Resolution 98 (Hammamet, 2016) of the World Telecommunication Standardization Assembly (WTSA), on enhancing the standardization of IoT and smart cities and communities for global development;

h) Resolution ITU-R 62 (Rev. Geneva, 2015) of the Radiocommunication Assembly, on studies related to testing for conformance with Recommendations of the ITU Radiocommunication Sector (ITU-R) and interoperability of radiocommunication equipment and systems;

i) that C&I of telecommunication/ICT equipment and systems, thanks to the implementation of relevant programmes, policies and decisions, can enhance market opportunities and reliability, and promote world integration and trade;

j) the report produced for Question 4/2 of the ITU-D study groups reasserting the importance of C&I for achieving the Sustainable Development Goals (SDGs);

k) the efforts made by regions (e.g. Maghreb, ECOWAS, CTU, South America and EAC), with the collaboration of the Telecommunication Development Bureau (BDT), to promote the collaboration and creation of societies aimed at promoting the efficient use of infrastructures for testing conformance, such as the harmonization of standards and testing services in laboratories;

l) that strengthening the capacity of Member States in the matter of conformance assessment and testing, as well as the availability of facilities for national and regional conformance assessment testing, can help to combat counterfeit telecommunication/ICT equipment and devices;

m) Resolution 79 (Rev. Buenos Aires, 2017) of this conference, on the role of telecommunications/ICTs in combating and dealing with counterfeit devices;

n) Resolution 96 (Hammamet, 2016) of WTSA, on ITU-T studies for combating counterfeit telecommunication/ICT devices,

considering further

that WTSA in its Resolution 76 (Rev. Hammamet, 2016), on studies related to C&I testing, assistance to developing countries, and a possible future ITU Mark programme, invited Member States and ITU-D Sector Members to evaluate and assess the risks and various costs resulting from the lack of C&I tests, particularly in developing countries, and share necessary information and Recommendations to avoid losses, based on best practices,

recognizing

a)   that the provisions of ITU Recommendations may be taken into consideration by ITU Member States in the development of national standards;

b)   that Resolution 44 (Rev. Hammamet, 2016) of WTSA instructs the Director of the Telecommunication Standardization Bureau (TSB), in collaboration with the Directors of the Radiocommunication Bureau (BR) and BDT, to provide support and assistance to developing countries, if requested, in drafting/developing a set of guidelines on the application of ITU-T Recommendations at the national level in order to enhance their participation in ITU-T study groups, with the assistance of the ITU regional offices, for bridging the standardization gap, and to assist developing countries with their studies, particularly in respect of their priority Questions and towards developing and implementing ITU-T Recommendations;

c)   that conformance systems and testing, encompassing items such as security, interoperability, spectrum occupancy, quality and national technical regulation of ICT equipment, constitute important tests from the standpoint of ICT infrastructure and the consumer;

d) that Resolution 76 (Rev. Hammamet, 2016) calls on ITU-T, in collaboration with the other Sectors, as appropriate, to assist developing countries in identifying human and institutional capacity-building and training opportunities on C&I testing and in establishing regional or subregional C&I centres suitable to perform C&I testing, as appropriate, encouraging cooperation with governmental and non-governmental, national and regional organizations and international accreditation and certification bodies;

e) that the C&I programme action plan was updated by the Council (Documents C12/48, C13/24, C14/24, C15/24, C16/24 and C17/24);

f) the decision of the Council, at its 2012 session, concerning postponement of the implementation of the ITU Mark until such time as Pillar 1 (Conformity assessment) of the action plan has reached a more mature stage of development;

g) the growing need for harmonization of wireless systems to support 5G services and the adoption of IoT, as well as the priority of technical requirements with respect to security, the specific absorption rate, electromagnetic compatibility, and an interference-free electromagnetic environment;

h) that having infrastructure applications in developing countries which are compatible with ITU Recommendations is desirable, so as to maintain a competitive environment, reduce costs, increase the chances of interoperability and ensure satisfactory quality of service and quality of experience;

i) that interoperability of international telecommunication networks was the main reason for creating the International Telegraph Union in 1865, and that this remains one of the main goals in the ITU strategic plan;

j) that emerging technologies have increasing requirements for C&I testing;

k) that conformity assessment is the accepted way of demonstrating that a product adheres to an international standard, and continues to be important in the context of World Trade Organization members' international standardization commitments under the Agreement on Technical Barriers to Trade;

l) that technical training and institutional capacity development for testing and certification are essential issues for countries to improve their conformity assessment processes, to promote the deployment of advanced telecommunication networks and to increase global connectivity;

m) that an ITU C&I Portal website has been established, which is being continuously updated,

further recognizing

that the ITU C&I programme was initiated at the request of the ITU membership, particularly the developing countries, in order to enhance the conformity and interoperability of ICT networks and products implementing ITU Recommendations or part thereof, solicit feedback to improve the quality of ITU Recommendations, and reduce the digital divide and the standardization gap by assisting developing countries with human-resources and infrastructure capacity building,

taking into account

a) that C&I testing could help in combating counterfeit devices, especially in developing countries;

b) that technical training and capacity building for testing and certification are essential for countries to increase global connectivity and promote the deployment of advanced telecommunication networks;

c) that the ITU-T Conformity Assessment Steering Committee (CASC) has been set up for the purpose of developing a procedure for the recognition of ITU experts and elaborating detailed procedures for the implementation of a test laboratory recognition procedure in ITU-T;

d) that CASC, in collaboration with the International Electrotechnical Commission (IEC), is working on the establishment of a joint IEC/ITU certification scheme for assessing ICT equipment for conformity with ITU-T Recommendations;

e) that ITU-T has launched a Product Conformity Database and is progressively populating it with details of ICT equipment having undergone testing for conformity with ITU-T Recommendations,

noting

a) that some countries, especially developing countries, have not as yet acquired the capacity to test equipment and provide security with respect to the consumers in their countries;

b) that the activities of ITU-D Study Group 2 under Question 4/2 and of ITU-T Study Group 11, especially in the field of C&I testing, have created growing interest in developing countries in building capacities related to the C&I programme around the two pillars entrusted to ITU-D, namely Pillar 3: Capacity building, and Pillar 4: Assistance in the establishment of national/regional test centres;

c) that enhancing Member States' capabilities for conformance assessment and testing and the availability of national and regional conformance assessment testing facilities may help combat counterfeit telecommunication/ ICT devices and equipment;

d) that C&I testing can facilitate the interoperability of certain emerging technologies such as IoT, IMT-2020, etc.;

e) that having infrastructure applications in developing countries which are compatible with the Recommendations and standards of ITU-T and/or other international and internationally recognized organizations is desirable, as against those based on proprietary technologies and equipment, so as to maintain a competitive environment, reduce costs, increase the chances of interoperability and ensure satisfactory quality of service and quality of experience;

f)   the need for C&I testing in order to reduce the probability of errors being introduced during the network integration period, which can impact on commercial deployment schedules;

g)   that, when interoperability experiments or testing have not been performed, users may have suffered from the lack of interconnection performance between equipment from different manufacturers;

h)   that ITU is implementing human-resources capacity building in the regions on conformity, interoperability and testing, which will also be organized in cooperation with other relevant regional and international organizations, to clarify fundamental aspects and accreditation;

i)   that guidelines have been prepared by BDT with this aim which will provide basic elements to formulate a strategy for the establishment of test centres, including technical, human and instrumental resources, international standards and financial issues;

j)   that the remote testing of equipment and services using virtual laboratories will enable all countries, especially those with economies in transition and developing countries, to conduct C&I testing, while at the same time facilitating the exchange of experience among technical experts taking into account the positive results achieved in implementing the ITU pilot project for the creation of such laboratories;

k)   that, along with ITU-T Recommendations, there are a number of specifications for C&I testing developed by other standards-development organizations (SDOs), forums and consortia;

l)   that understanding ITU Recommendations and related international standards in order to apply new technology to the network appropriately and effectively is essential for the implementation of Resolution 76 (Rev. Hammamet, 2016),

resolves

1   to continue engaging in activities to enhance knowledge and effective application of ICT standards, including ITU-R and ITU-T Recommendations, in developing countries;

2   to enhance efforts to introduce best practice and share experiences on the application of ICT standards, including ITU-R and ITU-T Recommendations, in, for example, but not limited to, fibre-optic transmission technology, broadband network technology, International Mobile Telecommunications, next-generation networks and emerging technologies, including IoT, and building confidence and security in the use of ICTs, by organizing training courses and workshops especially for developing countries, involving academia in the process;

3   to evaluate the benefits of using equipment tested in accordance with ITU-T and ITU-R Recommendations, particularly in developing countries, and share necessary information and recommendations to avoid losses, based on best practices,

instructs the Director of the Telecommunication Development Bureau, in close collaboration with the Directors of the Telecommunication Standardization Bureau and the Radiocommunication Bureau

1   to continue to encourage the participation of developing countries in training courses and workshops organized by ITU-D, so as to introduce best practices and to share experience in the application of ICT standards, including ITU-R and ITU-T Recommendations;

2   to assist developing countries, in collaboration with the Director of TSB, in accordance with Programme 2 under WTSA Resolution 44 (Rev. Hammamet, 2016), to take advantage of the guidelines established and developed by ITU-T on how to apply ITU-T Recommendations, in particular on manufactured products and interconnection, with emphasis on Recommendations having regulatory and policy implications;

3   to provide assistance in developing methodological guidance (manuals) on implementing ITU Recommendations;

4   to assist developing countries in building their capacity, in collaboration with the other Bureaux, so as to be able to perform conformance testing and interoperability testing of equipment and systems, relevant to their needs, in accordance with the relevant Recommendations, including the development or recognition of, as appropriate, conformity assessment bodies;

5   to assist the Director of TSB, in collaboration with the Director of BR and, as appropriate, with equipment and systems manufacturers and internationally and regionally recognized SDOs, in holding conformance assessment and interoperability testing events, preferably in the developing countries, to encourage developing countries to attend these events

6   to collaborate with the Director of TSB in order to build the capacity of the developing countries to effectively participate and be involved in these events, and to provide the views of developing countries on this issue on the basis of a questionnaire addressed by the relevant BDT programme to the ITU members;

7   to promote, with the collaboration of regional C&I bodies (for example, regional standardization bodies, accreditation bodies, certification bodies and testing laboratories, among others), the establishment of technical collaboration with respect to conformance assessment;

8   to assist developing countries in establishing regional or subregional C&I centres and encourage cooperation with governmental and non-governmental, national and regional organizations and international accreditation and certification bodies;

9   to promote the development of pilot projects to carry out remote testing;

10   to identify regional and subregional ICT testing centres in developing countries as ITU centres of excellence for testing, training and capacity building of ITU members, as part of the strategies to fulfil the objectives of this resolution;

11   to use the ITU seed fund meant for projects and encourage donor agencies to fund annual capacity-building and training programmes in testing centres adopted as ITU centres of excellence;

12   to coordinate and foster capacity building, by facilitating participation from developing countries in the work of international or regional test laboratories of organizations or entities specialized in conformance testing and interoperability testing, in order to gain on-the-job experience;

13   to collaborate with the Director of TSB in order to implement the recommended actions under Resolution 76 (Rev. Hammamet, 2016) in the C&I programme action plan as endorsed by the Council (Documents C12/48, C13/24, C14/24, C15/24, C16/24 and C17/24);

14   to assign to the BDT programme concerned the responsibility for following up implementation of this resolution;

15   to submit a periodic report to the Telecommunication Development Advisory Group on the implementation of this resolution, as well as a report to the next world telecommunication development conference on implementation of this resolution, which shall also contain lessons learned with a view to updating the resolution for the cycle after 2020;

16   to continue fostering the participation of developing countries in training courses and workshops organized by ITU-D to introduce suitable practices for implementing ICT standards, including ITU-R and ITU-T Recommendations;

17   to support the review, amendment, updating or drafting of various regulatory instruments such as technical standards, rules, conformance assessment procedures, guidelines for the type-approval and certification of products, equipment, devices or apparatus that can be connected to a telecommunication network;

18   to foster harmonization of C&I procedures, strengthening international, regional and national capacity in this matter;

19   to facilitate, through the ITU regional offices, meetings of experts at the regional and subregional levels, in order to promote awareness in developing countries on the question of the establishment of an appropriate C&I programme in such countries;

20   to assist Member States in enhancing their capabilities for conformance assessment and testing in order to combat counterfeit devices and to provide experts for developing countries;

21   to submit the results of the activities to the Council for its consideration and required actions,

invites the Council

to consider the Director's report,

invites Member States and Sector Members

1   to contribute to the implementation of this resolution by means of the following, among others:

i)   the specification of requirements to conduct C&I testing, actively submitting contributions to the relevant study groups;

ii)   consideration of the possibility of collaborating in future C&I activities;

2   to encourage national and regional bodies in charge of ICT equipment and system conformance to contribute to the implementation of this resolution;

3   to exchange C&I expertise in order to enhance knowledge and share experiences;

4   to create an enabling environment for ICT equipment manufacturers to consider the local design and manufacture of equipment in developing countries;

5   to develop and improve the mutual recognition of C&I test and results mechanisms and data analysis techniques between different regional testing centres;

6   to work together to combat counterfeit equipment using nationally and/or regionally established conformance assessment systems;

7   to evaluate the risks and costs of lack of conformity with acceptable international standards, especially in developing countries, and to share the necessary information and recommendations on best practices, in order to prevent losses,

invites eligible organizations under Recommendation ITU-T A.5

in collaboration with the Director of BDT and the Director of TSB, in accordance with Resolution 177 (Rev. Busan, 2014), on C&I, to work on building the capacity of developing countries in C&I testing, including training.