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| Director, Telecommunication Development Bureau | | |
| REPORT ON THE RESULTS OF WTSA-16 THAT RELATE TO THE WORK OF ITU-D | | |

**Introduction**

The World Telecommunication Standardization Assembly (WTSA) took place in Yasmine Hammamet, Tunisia, from 25 October to 3 November 2016 and was preceded by the Global Standards Symposium (24 October 2016).

Contributions made to the WTSA can be broadly classified in three main categories: proposals related to the work of the ITU-T study Groups, proposals related to the ITU-T recommendations and proposals related to WTSA resolutions.

A significant number of WTSA-16 resolutions address the needs of developing countries in terms of ICT for development and are therefore related to the work of ITU-D.

Most of them include in their operative part, the collaboration and cooperation with ITU-D, its related Study Groups and the BDT Director. In some resolutions there is a clear mention to support existing efforts undertaken by ITU-D.

Table 1 presents the WTSA Resolutions with an impact on the work of ITU-D. Extracts of the detailed text relevant to ITU-D can be found in the Annex.

Table 2 provides an overview of the WTSA Resolutions relevant to the work of ITU-D. Detailed text of these resolutions can be found in the Annex.

**Conclusion**

WTSA-16 approved a significant number of new resolutions as well as revised resolutions that engage ITU-D in undertaking collaborative work on their implementation.

The main topics of several resolutions, such as the mandate of the ITU Study Groups, IoT, OTT, cybersecurity, International Mobile Roaming (IMR), bridging the financial inclusion gap, counterfeit, Smart Africa, bridging the standardization gap, IPv6, accessibility, human exposure to electromagnetic fields, e-health, among others, touch upon key areas of the work of ITU-D, as they require the provision of assistance to Member States, with a focus on developing countries mostly in the form of raising awareness, organizing workshops and seminars as well as establishing platforms for dialogue and human and institutional capacity building.

Taking into consideration that most of the WTSA-12 resolutions related to the work of the ITU-D led to the consideration and approval of corresponding resolutions at WTDC-14, this document provides background information on the resolutions approved at WTSA-16 for the consideration of the membership in the framework of the preparation of WTDC-17, to guide the work of ITU-D in relation to the topics concerned.

**Table 1**

**WTSA Resolutions with an impact on the work of ITU-D**

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| Status | Number | Title |
| New | TBD | Evaluation of the implementation of WTSA Resolutions |
| New | TBD | Enhancing the non-radio aspects related standardization activities in ITU-T on international mobile telecommunications |
| New | TBD | International mobile roaming (IMR) |
| New | TBD | Studies concerning the protection of users of telecommunication/ICT services |
| New | TBD | Promoting the use of information and communication technologies to bridge the financial inclusion gap |
| New | TBD | ITU-T studies for combating counterfeit telecommunication/Information Communication Technologies devices |
| New | TBD | Facilitating the implementation of the Smart Africa Manifesto |
| New | TBD | Enhancing the standardization of Internet of things and Smart Cities and Communities for global development |
| New | TBD | ITU Telecommunication Standardization Sector initiatives to raise awareness on best practices and policies related to service quality |
| New | TBD | Combating mobile telecommunication device theft |
| Rev | 2 | ITU Telecommunication Standardization Sector study group responsibility and mandates |
| Rev | 18 | Principles and procedures for the allocation of work to, and strengthening coordination and cooperation among, the ITU Radiocommunication, ITU Telecommunication Standardization and ITU Telecommunication Development Sectors |
| Rev | 29 | Alternative calling procedures on international telecommunication networks |
| Rev | 44 | Bridging the standardization gap between developing and developed countries |
| Rev | 45 | Effective coordination of standardization work across study groups in the ITU Telecommunication Standardization Sector and the role of the ITU Telecommunication Standardization Advisory Group |
| Rev | 50 | Cybersecurity |
| Rev | 52 | Countering and combating spam |
| REV | 54 | Creation of, and assistance to, regional groups |
| NOC | 58 | Encouraging the creation of national Computer Incident Response Teams, particularly for developing countries |
| Rev | 64 | IP address allocation and facilitating the transition to and deployment of IPv6 |
| Rev | 69 | Non-discriminatory access and use of Internet resources and telecommunications/ICTs |
| Rev | 72 | Measurement and assessment concerns related to human exposure to electromagnetic fields |
| Rev | 73 | Information and communication technologies, environment and climate change |
| Rev | 76 | Studies related to conformance and interoperability testing, assistance to developing countries, and a possible future ITU Mark programme |
| Rev | 78 | Information and communication technology applications and standards for improved access to e-health services |

**Table 2**

**Overview of the WTSA Resolutions relevant to the work of ITU-D**

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| New Resolution on evaluation of the implementation of WTSA Resolutions instructs the TSB Director in collaboration with Directors of the other Bureaux to take the necessary actions to assess the implementation of the WTSA Resolutions by all parties concerned. |
| New Resolution on enhancing the non-radio aspects related standardization activities in ITU-T on international mobile telecommunications instructs ITU-T Study Group 13, to maintain the roadmap of IMT standardization activities in ITU-T, which should include work items to progress the non-radio side related standardization work on IMT, and share this with relevant groups of ITU-R and ITU-D as the mission of the lead group for IMT. |
| New Resolution on International mobile roaming (IMR) instructs the TSB Director to organize initiatives, in collaboration with the BDT Director, to raise awareness on the consumer’s benefits of lowering international mobile roaming rates and encourages the Directors of the three Bureaux to investigate new ways to improve the efficiency of ITU work on IMT. |
| New Resolution on studies concerning the protection of users of telecommunication/information and communication technology services invites the TSB Director to assist the BDT Director in the implementation of Resolution 196 (Busan, 2014). |
| New Resolution on Promoting the use of information and communication technologies to bridge the financial inclusion gap instructs the TSB Director in collaboration with the Directors of the other Bureaux to report the progress on the resolution to Council and WTSA 2020, to support the development of reports and best practises on digital financial and to organize workshops and seminars for the ITU membership. |
| New Resolution on ITU-T studies for combating counterfeit telecommunication/Information Communication Technologies devices instructs the TSB Director in close collaboration with the BDT Director to organize workshops and events across ITU regions, to assist developing countries in preparing human resources to combat the spread of counterfeit and tampered telecommunication/ICT devices, to work in close collaboration with relevant stakeholders and to assist Member States in taking the necessary actions to apply relevant ITU-T Recommendations. It further instruct the TSB Director in close collaboration with the BDT and BR Directors to assist Member States in addressing their concerns with respect to counterfeit and tampered telecommunication/ICT devices. |
| New Resolution on facilitating the implementation of the Smart Africa Manifesto instructs the TSB Director, in collaboration with the BDT Director to establish mechanisms for collaboration and cooperation between ITU-T study groups and the Smart Africa office in the development of standards, to continue supporting the Smart Africa Manifesto, to provide assistance to Smart Africa and Africa regional groups and to strengthen training and guide Smart Africa member states. |
| New Resolution on enhancing the standardization of Internet of things and Smart Cities and Communities for global development instructs the TSB Director, in collaboration with the BDT and BR Directors prepare reports considering, in particular, the needs of developing countries in terms of the study of IoT and its applications, sensor networks, services and infrastructure and to continue disseminating ITU publications on IoT and SC&C, as well as organizing forums, seminars and workshops on the subject, taking into account the needs of developing countries, in particular. |
| New Resolution on ITU Telecommunication Standardization Sector initiatives to raise awareness on best practices and policies related to service quality instructs the TSB Director, in close collaboration with the BDT Director to assist developing and least developed countries in identifying human and institutional capacity-building opportunities for establishing national quality measurement frameworks, to conduct activities in each region in order to identify and prioritize the problems and to assist developing and least developed countries in elaborating and implementing actions to improve service quality and keep users informed. |
| New Resolution on combating mobile telecommunication device theft resolves to instruct the TSB Director in collaboration with the BDT and BR Directors to compile information on best practices developed by industry or governments, to facilitate the standardization and dissemination of recommendations, technical reports and guideline, to consult with the Sector’s relevant study groups, manufacturers of mobile devices, manufacturers of telecommunication network components, operators, telecommunication standards-development organizations as well as developers of promising technologies related to these matters and to provide assistance to Member States, if so requested. |
| RESOLUTION 2 on ITU Telecommunication Standardization Sector study group responsibility and mandates provide the mandates and lead roles and points of guidance for the ITU-T Study Groups. SG13 and SG 20 are requested to consult and cooperate with ITU-D in undertaking their mandate. |
| RESOLUTION 18 on Principles and procedures for the allocation of work to, and strengthening coordination and cooperation among, the ITU-R, ITU-T and ITU-D invites RAG, TSAG and TDAG to continue to assist the Intersector Coordination Group on Matters of Mutual Interest in the identification of subjects common to the three Sectors and mechanisms to enhance cooperation and collaboration in all Sectors on matters of mutual interest and the Directors BR, TSB, BDT and ISC-TF to report to the Intersector Coordination Group on Matters of Mutual Interest. |
| RESOLUTION 29 on alternative calling procedures on international telecommunication networks instructs the TSB Director to continue to cooperate with the BDT Director in order to facilitate the participation of developing countries in these studies and to make use of the results of the studies, and in the implementation of the resolution. |
| RESOLUTION 44 on bridging the standardization gap between developing and developed countries resolves that the action plan annexed to the resolution, should be continued and be reviewed on an annual basis to take into account the requirements of developing countries; it also resolves that ITU-T, in collaboration with the other Sectors, especially the ITU-D as appropriate, shall develop a programme to assist developing countries in developing strategies and methods that facilitate the process of linking innovations to the standardization process, assist developing countries in developing means to align their national industrial and innovation strategies towards the goal of achieving highest impact on their socio-economic ecosystems, assist developing countries on developing strategies in establishing national/international test laboratories for emerging technologies. It resolves further that ITU regional offices be engaged in the activities of TSB in order to promote and coordinate standardization activities. It furthermore instructs TSB Director, in collaboration with the BDT and BR Director, to continue implementing the objectives of the action plan as well as other activities related to partnerships and collaboration. It further instructs the study groups to continue liaising with ITU-D study groups, where appropriate, when developing new or revised ITU-T Recommendations, and finally invites the TSB Director to work closely with the Directors of BDT and the BR in order to encourage the formation of partnerships and to consider holding workshops concurrently with meetings of the ITU-T regional groups, in coordination and collaboration with the BDT Director. |
| RESOLUTION 45 on Effective coordination of standardization work across study groups in the ITU Telecommunication Standardization Sector and the role of the ITU Telecommunication Standardization Advisory Group resolves that the coordination of ITU-T activities in regard to high-priority standardization issues and work related to more than one study group should ensure cooperation and coordination with the ITU Radiocommunication and Telecommunication Development Sectors and with other, external, standardization bodies. |
| RESOLUTION 50 on cybersecurity notes that ITU-T should work closely with ITU-D, particularly in the context of Question3/2, instructs TSB Director to continue to maintain, in building upon the information base associated with the "ICT Security Standards Roadmap" and the ITU-D efforts on cybersecurity, an inventory of national, regional and international initiatives and to support the BDT Director on assisting Member States in the establishment of an appropriate framework between developing countries. |
| RESOLUTION 52 on countering and combating spam instruct the relevant study groups to continue collaboration with ITU-D in order to continue developing, as a matter of urgency, technical Recommendations with a view to exchanging best practices and disseminating information through joint workshops, training sessions. It further instructs ITU-T Study Group 17 to support ITU-D Study Group 2 on countering and combating spam in its work providing technical training sessions, workshops activities in different regions related to spam policy, regulatory and economic issues and their impact. |
| RESOLUTION 54 on the creation of, and assistance to, regional groups instructs the TSB Director, in collaboration with the BDT Director to provide all necessary support for creating and ensuring the smooth functioning of the regional groups, to consider holding, whenever possible, workshops concurrently with meetings of the ITU-T regional groups, in the relevant regions, and vice versa and to take all necessary measures to facilitate the organization of meetings and workshops of the regional groups. It also calls upon the TSB Director to cooperate with the BDT Director in order to continue to provide specific assistance to regional groups, to encourage the continuing development of computerized application tools and take appropriate steps to facilitate meetings of the current and future regional groups. |
| RESOLUTION 58 on encouraging the creation of national Computer Incident Response Teams (CIRTs) in Member States, particularly developing countries, instructs the TSB Director to work in collaboration with the BDT Director to identify best practices to establish CIRTs, to identify where CIRTs are needed, to collaborate with international experts and bodies to establish national CIRTs, to provide support, as appropriate and to facilitate collaboration between national CIRTs. |
| RESOLUTION 64 on IP address allocation and facilitating the transition to and deployment of IPv6 recognizes that future work on IPv6 human capacity building is to be continued and led by the Telecommunication Development Bureau (BDT), in collaboration with other relevant organizations, if required. It also instructs the Director of the Telecommunication Standardization Bureau, in close collaboration with the Director of the Telecommunication Development Bureau to continue the ongoing activities between the Telecommunication Standardization Bureau (TSB) and BDT, to update and maintain the website which provides information about global activities related to IPv6, to promote awareness of the importance of IPv6 deployment, to facilitate joint training activities, to support BDT in relevant IPv6 training for engineers, network operators and content providers. |
| RESOLUTION 69 on non-discriminatory access and use of Internet resources and telecommunications/ICTs invites the Directors of TSB, BR, BDT to contribute on the progress of the resolution. |
| RESOLUTION 70 on Telecommunication/information and communication technology accessibility for persons with disabilities and persons with specific needs instructs the TDB Director to contribute to the development of an ITU-wide internship programme for persons with disabilities who have expertise in the field of ICTs and invites the TSB Director to work collaboratively on accessibility-related activities with the BR and BDT Directors, on awareness and mainstreaming of telecommunication/ICT accessibility as well as to work collaboratively on accessibility-related activities with ITU-D. |
| RESOLUTION 72 on measurement and assessment concerns related to human exposure to electromagnetic fields resolves to invite ITU-T, to expand and continue its work including cooperating with ITU-R and ITU-D Study groups and instructs TSB Director in close collaboration with the Directors of the other two Bureaux to support the development of reports identifying the needs of developing countries, to hold workshops in developing countries, to extend its support for developing countries while they establish their regional centres equipped with test benches for continuous monitoring of EMF levels. |
| RESOLUTION 73 on Information and communication technologies, environment and climate change takes into account initiatives on climate change and the role of ICTs undertaken by ITU-D and ITU-R. It further instructs the TSB Director to collaborate with the Directors of the other two Bureaux in implementing the resolution. |
| RESOLUTION 76 on studies related to conformance and interoperability testing, assistance to developing countries1, and a possible future ITU Mark programme invites 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, as well as instructs the TSB Director in cooperation with the Directors of BR and BDT to continue to conduct as necessary exploratory activities in each region in order to identify and prioritize the problems faced by developing countries related to achieving interoperability of telecommunication/ICT equipment and services and in cooperation with the BDT Director to implement an ITU C&I programme for possible introduction of a database identifying products’ conformance and origin. |
| Resolution 78 on information and communication technologies and standards for improved access to e-health services notes the ongoing work and studies in ITU-D Study Group 2 under Question 14-3/2, and instructs the TSB Director in collaboration with the BDT and BR Director to consider with priority the enhancement of telecommunication/ICT initiatives in e health and to coordinate their related standardization activities, to continue and further develop ITU activities on telecommunication/ICT applications for e-health, to work collaboratively with WHO, academia and other relevant organizations on activities related to e-health in general and to this resolution in particular and to organize seminars and workshops on e-health. |

**Annex**

**Detailed text of WTSA Resolutions relevant to the work of ITU-D**

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| Number / Resolution | Relevant text |
| NEW RESOLUTION  Evaluation of the implementation of WTSA Resolutions | **instructs**  the Director of TSB in collaboration with Directors of the other Bureaux to take the necessary actions to assess the implementation of the WTSA Resolutions by all parties concerned |
| NEW RESOLUTION  Enhancing the non-radio aspects related standardization activities in ITU-T on international mobile telecommunications | **instructs**  ITU-T Study Group 13, to maintain the roadmap of IMT standardization activities in ITU-T, which should include work items to progress the non-radio side related standardization work on IMT, and share this with relevant groups of ITU-R and ITU-D as the mission of the lead group for IMT (especially IMT-2020); |
| NEW RESOLUTION  International mobile roaming (IMR) | **instructs**  the Director of the Telecommunication Standardization Bureau  1 to organize initiatives, in collaboration with the Director of the Telecommunication Development Bureau (BDT), to raise awareness on the consumer’s benefits of lowering international mobile roaming rates;  **encourages**  the Directors of the three Bureaux to investigate new ways to improve the efficiency of ITU work on IMT, |
| NEW RESOLUTION  Studies concerning the protection of users of telecommunication / information and communication technology services | **invites**  the Director of the Telecommunication Standardization Bureau  1 to assist the Director of the Telecommunication Development Bureau in the implementation of Resolution 196 (Busan, 2014) |
| NEW RESOLUTION  Promoting the use of information and communication technologies to bridge the financial inclusion gap | **instructs**  the Director of the Telecommunication Standardization Bureau, in collaboration with the Directors of the other Bureaux  1 to report on progress on the implementation of this resolution annually to the Council and to the 2020 world telecommunication standardization assembly;  2 to support the development of reports and best practices on digital financial inclusion, taking into consideration relevant studies, where clearly within the mandate of the Union and not duplicative of work other SDOs and institutions are responsible;  3 to establish a platform or, where possible, connect to those already existing, for peer learning, dialogue and experience-sharing in digital financial services among countries and regions, regulators from telecommunication and financial services sectors, industry experts and international and regional organizations;  4 to organize workshops and seminars for the ITU membership in collaboration with other relevant SDOs and institutions with primary responsibility for financial services standards development, implementation and capacity building, in order to raise awareness and identify regulators’ particular needs and challenges in enhancing financial inclusion |
| NEW RESOLUTION  ITU-T studies for combating counterfeit telecommunication / Information Communication Technologies devices | **instructs**  the Director of the Telecommunication Standardization Bureau, in close collaboration with the Director of the Telecommunication Development Bureau  1 to organize workshops and events across ITU regions to promote the work in this field, involving all stakeholders and raising awareness of the impact of counterfeit and tampered telecommunication/ICT devices;  2 to assist developing countries in preparing human resources to combat the spread of counterfeit and tampered telecommunication/ICT devices, by providing capacity-building and training opportunities;  3 to work in close collaboration with relevant stakeholders, such as the World Trade Organization (WTO), the World Intellectual Property Organization, (WIPO), the World Health Organization (WHO) and the World Custom Organization (WCO) relating to combating counterfeit and tampered telecommunication/ICT devices, including to restrict the trading, export and circulation of these telecommunication/ICT devices internationally;  4 to coordinate activities relating to combating counterfeit and tampered telecommunication/ICT devices through study groups, focus groups and other related groups.;  5 to assist Member States in taking the necessary actions to apply relevant ITU-T Recommendations for combating counterfeit and tampered telecommunication/ICT devices, including use of conformity assessment systems  **instructs**  the Director of TSB in close collaboration with the BDT and BR Directors  1 to assist Member States in addressing their concerns with respect to counterfeit and tampered telecommunication/ICT devices, through information sharing at regional or global level, including conformity assessment systems;  2 to assist all the membership, considering relevant ITU-T recommendations, in taking the necessary actions to prevent or detect the tampering with and/or duplication of unique telecommunication/ICT device identifiers, interacting with other telecommunication standards-development organizations related to these matters |
| NEW RESOLUTION  Facilitating the implementation of the Smart Africa Manifesto | **instructs**  the Director of the Telecommunication Standardization Bureau, in collaboration with the Director of the Telecommunication Development Bureau  1 to establish mechanisms for collaboration and cooperation between ITU-T study groups and the Smart Africa office in the development of standards;  2 to continue supporting the Smart Africa Manifesto in accordance with Resolution 195 (Busan, 2014);  3 to provide assistance to Smart Africa and Africa regional groups from within the assigned budget in order to support pilot projects aimed at speeding up the implementation of ITU standards and Recommendations;  4 to strengthen training and guide Smart Africa member states, partner organizations and industries in their adoption of ITU-T standards |
| NEW RESOLUTION  Enhancing the standardization of Internet of things and Smart Cities and Communities for global development | **instructs**  the Director of the Telecommunication Standardization Bureau, in collaboration with the Directors of the Telecommunication Development Bureau and the Radiocommunication Bureau  1 to prepare reports considering, in particular, the needs of developing countries in terms of the study of IoT and its applications, sensor networks, services and infrastructure;  2 to continue disseminating ITU publications on IoT and SC&C, as well as organizing forums, seminars and workshops on the subject, taking into account the needs of developing countries, in particular, |
| NEW RESOLUTION  ITU Telecommunication Standardization Sector initiatives to raise awareness on best practices and policies related to service quality | **instructs**  the Director of the Telecommunication Standardization Bureau, in close collaboration with the Director of the Telecommunication Development Bureau  1 to assist developing and least developed countries in identifying human and institutional capacity-building opportunities for establishing national quality measurement frameworks;  2 to conduct activities in each region in order to identify and prioritize the problems faced by developing and least developed countries related to the provision of acceptable service quality to users;  3 based on results of instructs 2 above, to assist developing and least developed countries in elaborating and implementing actions to improve service quality and keep users informed, |
| NEW RESOLUTION  Combating mobile telecommunication device theft | **resolves**  to instruct the Director of the Telecommunication Standardization Bureau in collaboration with the Directors of the Radiocommunication Bureau and Telecommunication Development Bureau  1 to compile information on best practices developed by industry or governments and promising trends in combating mobile device theft;  2 to facilitate , in collaboration with industry organizations and SDOs, the standardization and dissemination of recommendations, technical reports and guidelines to combat mobile device theft and its negative effects, specifically regarding the exchange of mobile device identifiers reported stolen/lost , and to prevent lost/stolen mobile devices from accessing the mobile networks.  3 to consult with the Sector’s relevant study groups, manufacturers of mobile devices, manufacturers of telecommunication network components, operators, telecommunication standards-development organizations as well as developers of promising technologies related to these matters, in order to identify existing and future technological measures, both software and hardware, to mitigate the consequences of the use of stolen mobile devices;4 to provide assistance, within ITU-T's expertise and within available resources, as appropriate, in cooperation with relevant organizations, to Member States, if so requested, in order to reduce mobile device theft and the use of stolen mobile devices in their countries, |
| RESOLUTION 2  ITU Telecommunication Standardization Sector study group responsibility and mandates | **ITU-T SG 13**  In order to assist countries with economies in transition, developing countries and especially the least developed countries in the application of networks of the future including IMT-2020 and other innovative technologies, Study Group 13 maintains a dedicated Question on this topic and its regional group for Africa. By this, consultations should be enabled with representatives of the ITU Telecommunication Development Sector with a view to identifying how this assistance might best be done through an appropriate activity conducted in conjunction with ITU-D.  **ITU-T SG 20**  Framework and roadmaps for the harmonized and coordinated development of Internet of things (IoT), including M2M communications, ubiquitous sensor networks and smart sustainable cities, in ITU-T and in close cooperation with ITU-D and ITU-R SGs and other regional and international standards organizations and industry forums; |
| RESOLUTION 18  Principles and procedures for the allocation of work to, and strengthening coordination and cooperation among, the ITU Radiocommunication, ITU Telecommunication Standardization and ITU Telecommunication Development Sector | **invites**  1RAG, TSAG and TDAG to continue to assist the Intersector Coordination Group on Matters of Mutual Interest in the identification of subjects common to the three Sectors and mechanisms to enhance cooperation and collaboration in all Sectors on matters of mutual interest;  2 the Directors of the Radiocommunication (BR), Telecommunication Standardization (TSB) and Telecommunication Development (BDT) Bureaux and ISC TF to report to the Intersector Coordination Group on Matters of Mutual Interest and the respective Sector advisory groups on options for improving cooperation at the secretariat level to ensure that close coordination is maximized, |
| RESOLUTION 29  Alternative calling procedures on international telecommunication networks | **instructs**  the Director of the Telecommunication Standardization Bureau  to continue to cooperate with the Director of the Telecommunication Development Bureau in order to facilitate the participation of developing countries in these studies and to make use of the results of the studies, and in the implementation of this resolution |
| RESOLUTION 44  Bridging the standardization gap between developing[[1]](#footnote-1) and developed countries | **resolves**  1that the action plan annexed to this resolution, having the objective of bridging the standardization gap between developed and developing countries, should be continued and be reviewed on an annual basis to take into account the requirements of developing countries;  2 that ITU-T, in collaboration with the other Sectors, especially the ITU Telecommunication Development Sector (ITU-D), as appropriate, shall develop a programme to:  i) assist developing countries in developing strategies and methods that facilitate the process of linking innovations to the standardization process;  ii) assist developing countries in developing means to align their national industrial and innovation strategies towards the goal of achieving highest impact on their socio-economic ecosystems;  **iii)** assist developing countries on developing strategies in establishing national/international test laboratories for emerging technologies;  3 that, subject to Council approval, there should be free online access to the manuals, handbooks, directives and other ITU material related to understanding and implementation of ITU-T Recommendations, particularly in the area of developing planning, operation and maintenance of telecommunication equipment and networks;  4 to support, within available or otherwise contributed resources, and on a case-by-case basis, the coordinated creation of regional groups of ITU-T study groups, and encourage cooperation and collaboration of these groups with other regional standardization entities;  5 to maintain in the annual budget of the Union a separate expenditure line item for bridging the standardization gap activities, while at the same time voluntary contributions should be further encouraged;  6 that interpretation shall be provided, based on the requests of participants, and all study group and working party plenary meetings and the entire meeting of TSAG,  **resolves further**  that ITU regional offices  1be engaged in the activities of TSB in order to promote and coordinate standardization activities in their regions to support the implementation of the relevant parts of this resolution and to carry out the objectives of the action plan, and launch campaigns to attract new Sector Members, Associates and Academia from developing countries to join ITU-T, and to provide the necessary assistance to the regional groups of ITU-T study groups;  2 assist, within the offices' budgets, the vice-chairmen appointed with specific responsibilities, including, among others, the following:  i) closely work with ITU members in the region in order to mobilize them to participate in ITU standardization activities to assist in bridging the standardization gap;  ii) make mobilization and participation reports to the ITU body concerning the region;  iii) prepare and submit a mobilization programme for the regions that they represent at the first meeting of TSAG or a study group and send a report to TSAG;  iv) inform ITU members of programmes and initiatives within ITU-D that could assist in bridging the standardization gap;  3 organize and coordinate the activities of the regional groups of ITU-T study groups,  **instructs**  the Director of the Telecommunication Standardization Bureau, in collaboration with the Directors of Telecommunication Development Bureau and the Radiocommunication Bureau, within available resources  1 to continue implementing the objectives of the action plan annexed to this resolution;  2 to encourage the formation of partnerships under the patronage of ITU-T as one of the means for financing and implementing the objectives of the action plan annexed to this resolution;  3 to consider, whenever possible, holding workshops concurrently with meetings of the ITU-T regional groups, in coordination and collaboration with the Director of BDT;  4 to assist developing countries with their studies, particularly in respect of their priority questions and towards developing and implementing ITU-T Recommendations;  5 to continue the activities of the implementation group established within TSB to organize, mobilize resources, coordinate efforts and monitor work related to this resolution and the associated action plan;  6 to carry out the necessary studies on the role of innovation management and innovation stimulation programmes on bridging the standardization gap between the developed and developing countries;  7 to include in the TSB budget proposal to Council funds identified for the implementation of this resolution, taking into account financial constraints and existing and planned BDT activities;  8 to report on the implementation of this plan to future world telecommunication standardization assemblies and plenipotentiary conferences, with a view to reviewing this resolution and introducing the appropriate amendments in the light of implementation outcomes, as well as the budgetary adjustments needed;  9 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 order to enhance their participation in ITU-T study groups, with the assistance of the ITU regional offices, for bridging the standardization gap;  10 to enhance use of electronic channels such as webinars or e-learning for education and training on implementation of ITU-T Recommendations;  11to provide all necessary support and measures for creating and ensuring the smooth functioning of the regional groups, and to facilitate the organization of their meetings and workshops for disseminating information and increasing understanding of new Recommendations, in particular for developing countries;  12 to report on the effectiveness of the regional groups to Council;  13 to conduct workshops and seminars, as appropriate, for disseminating information and increasing understanding of new Recommendations and implementation guidelines for Recommendations, in particular for developing countries;  14 to provide remote participation, where possible, for more ITU-T workshops, seminars and forums, encouraging greater participation by developing countries;  15 to leverage existing ITU-D platforms, such as the Global Innovation Platform, in order for developing countries to have greater involvement in ITU-T’s standardization work;  16 to study the possibility of generating additional revenue for ITU-T activities on bridging the standardization gap, through identifying new financial resources not related to the voluntary contributions mentioned above,  further instructs the study groups  3 to continue liaising with ITU-D study groups, where appropriate, when developing new or revised ITU-T Recommendations, on the specific needs and requirements of developing countries, in order to broaden the appeal and applicability of the Recommendations in those countries;  **invites**  the Director of the Telecommunication Standardization Bureau  1to work closely with the Directors of BDT and the Radiocommunication Bureau (BR) in order to encourage the formation of partnerships under the patronage of ITU-T as one of the means for financing the action plan;  2 to consider, whenever possible, holding workshops concurrently with meetings of the ITU-T regional groups, in coordination and collaboration with the Director of BDT, |
| RESOLUTION 45  Effective coordination of standardization work across study groups in the ITU Telecommunication Standardization Sector and the role of the ITU Telecommunication Standardization Advisory Group | **resolves**  that the coordination of ITU‑T activities in regard to high-priority standardization issues and work related to more than one study group should ensure:  V) cooperation and coordination with the ITU Radiocommunication and Telecommunication Development Sectors and with other, external, standardization bodies |
| RESOLUTION 50  Cybersecurity | **noting**  4 that ITU-T should work closely with ITU-D, particularly in the context of Question3/2, Securing information and communication networks: Best practices for developing a culture of cybersecurity;  **instructs**  the Director of the Telecommunication Standardization Bureau  1 to continue to maintain, in building upon the information base associated with the "ICT Security Standards Roadmap" and the ITU-D efforts on cybersecurity, and with the assistance of other relevant organizations, an inventory of national, regional and international initiatives and activities to promote, to the maximum extent possible, the worldwide harmonization of strategies and approaches in this critically important area;  8 to support the BDT Director on assisting Member States in the establishment of an appropriate framework between developing countries allowing rapid response to major incidents, and to propose an action plan to increase their protection, taking into account mechanisms and partnerships, as appropriate; |
| RESOLUTION 52  Countering and combating spam | **resolves**  to instruct the relevant study groups  2 to continue collaboration with ITU-D and with the relevant organizations, including other relevant standards organizations (e.g. the Internet Engineering Task Force (IETF), in order to continue developing, as a matter of urgency, technical Recommendations with a view to exchanging best practices and disseminating information through joint workshops, training sessions, etc.,  **further instructs**  2 ITU-T Study Group 17 to support ITU-D Study Group 2 on countering and combating spam in its work providing technical training sessions, workshops activities in different regions related to spam policy, regulatory and economic issues and their impact; |
| RESOLUTION 54  Creation of, and assistance to, regional groups | **instructs**  the Director of the Telecommunication Standardization Bureau, in collaboration with the Director of the Telecommunication Development Bureau, within the allocated or contributed resources that are available  1 to provide all necessary support for creating and ensuring the smooth functioning of the regional groups;  2 to consider holding, whenever possible, workshops concurrently with meetings of the ITU-T regional groups, in the relevant regions, and vice versa;  3 to take all necessary measures to facilitate the organization of meetings and workshops of the regional groups,  **calls upon**  the Director of the Telecommunication Standardization Bureau to cooperate with the Director of the Telecommunication Development Bureau in order to:  i) continue to provide specific assistance to regional groups;  ii) encourage the continuing development of computerized application tools related to their cost methodology by the members of the regional groups of Study Group 3;  iii) take appropriate steps to facilitate meetings of the current and future regional groups in order to promote the necessary synergies among the three Sectors and thereby improve the effectiveness and efficiency of the study groups, |
| RESOLUTION 58  Encouraging the creation of national computer incident response teams, particularly for developing countries | **instructs**  the Director of the Telecommunication Standardization Bureau, in collaboration with the Director of the Telecommunication Development Bureau  1 to identify best practices to establish CIRTs;  2 to identify where CIRTs are needed;  3 to collaborate with international experts and bodies to establish national CIRTs;  4 to provide support, as appropriate, within existing budgetary resources;  5 to facilitate collaboration between national CIRTs, such as capacity building and exchange of information, within an appropriate framework, |
| RESOLUTION 64  IP address allocation and facilitating the transition to and deployment of IPv6 | **recognizing**  that future work on IPv6 human capacity building is to be continued and led by the Telecommunication Development Bureau (BDT), in collaboration with other relevant organizations, if required,  **instructs**  the Director of the Telecommunication Standardization Bureau, in close collaboration with the Director of the Telecommunication Development Bureau:  1 to continue the ongoing activities between the Telecommunication Standardization Bureau (TSB) and BDT, taking into consideration the involvement of those partners willing to participate and bring their expertise to assist developing countries with IPv6 migration and deployment, and respond to their regional needs as identified by BDT, taking into account WTDC Resolution 63 (Rev. Dubai, 2014);  2 to update and maintain the website which provides information about global activities related to IPv6, in order to facilitate awareness-raising and highlight the importance of IPv6 deployment for all ITU members and interested entities, as well as information related to training events being undertaken by ITU and relevant organizations (e.g. regional Internet registries (RIR), network operator groups and the Internet Society (ISOC));  3 to promote awareness of the importance of IPv6 deployment, to facilitate joint training activities, involving appropriate experts from the relevant entities, to provide information, including roadmaps and guidelines, and to assist in the continued establishment of IPv6 test-bed laboratories in developing countries in collaboration with appropriate relevant organizations, and its advantage over IPv4 with regard to the Internet of Things (IoT) given the substantial demand for IP addresses for IoT devices;  4 to support BDT in relevant IPv6 training for engineers, network operators and content providers which can enhance their skills and further apply at their respective organisations, |
| RESOLUTION 69  Non‑discriminatory access and use of Internet resources and telecommunications/ICTs | **invites**  Directors of the Telecommunication Standardization Bureau, Radiocommunication Bureau and Telecommunication Development Bureau  to contribute on the progress on resolution, |
| RESOLUTION 70  Telecommunication/information and communication technology accessibility for persons with disabilities and persons with specific needs | **instructs**  the Director of the Telecommunication Standardization Bureau  2 to contribute to the development of an ITU-wide internship programme for persons with disabilities who have expertise in the field of ICTs, so as to build capacity among persons with disabilities in the standards-making process and to raise awareness within ITU-T of the needs of persons with disabilities;  invites the Director of the Telecommunication Standardization Bureau  3 to work collaboratively on accessibility-related activities with the Directors of the Radiocommunication Bureau (BR) and the Telecommunication Development Bureau (BDT), in particular concerning awareness and mainstreaming of telecommunication/ICT accessibility standards, reporting findings to the Council as appropriate;  4 to work collaboratively on accessibility-related activities with ITU-D, in particular developing programmes that enable developing countries to introduce services that allow persons with disabilities to utilize telecommunication services effectively |
| RESOLUTION 72  Measurement and assessment concerns related to human exposure to electromagnetic fields | **resolves**  to invite ITU-T, in particular Study Group 5, to expand and continue its work and support in this domain, including but not limited to:  iv) cooperating on these issues with ITU-R Study Groups 1 and 6, and with Study Group 2 of the ITU Telecommunication Development Sector (ITU-D) in the framework of Question 7/2;  **instructs**  the Director of the Telecommunication Standardization Bureau, in close collaboration with the Directors of the other two Bureaux, and within the available financial resources  1 to support the development of reports identifying the needs of developing countries on the issue of assessing human exposure to EMF, and submit the reports as soon as possible to ITU-T Study Group 5 for its consideration and action in accordance with its mandate;  2 to regularly update the ITU-T portal on EMF activities including, but not limited to, the ITU EMF guide, links to websites and flyers;  3 to hold workshops in developing countries with presentations and training on the use of equipment employed in assessing human exposure to RF energy;  4 to extend its support for developing countries while they establish their regional centres equipped with test benches for continuous monitoring of EMF levels, especially in selected areas where the public has concerns, and transparently provide the data to the general public by using, among other things, the modalities listed in [Resolutions 44 (Rev. Hammamet, 2016)] and [76 (Rev. Hammamet, 2016)] of this assembly, in the context of the development of the regional test centres, and of Resolution 177 (Rev. Busan, 2014) of the Plenipotentiary Conference;  5 to report to the next world telecommunication standardization assembly on measures taken to implement this resolution, |
| RESOLUTION 73  Information and communication technologies, environment and climate change | **considering also**  b) in addition to the work in ITU-T, the ITU Radiocommunication Sector (ITU-R) and ITU Telecommunication Development Sector (ITU-D) initiatives in considering climate change and the role of ICTs;  **instructs**  all ITU-T study groups  6 to liaise with the relevant ITU-R and ITU-D study groups and promote liaison with other standards development organizations and forums in order to avoid duplication of work, optimize the use of resources and accelerate the availability of global standards,  **instructs**  the Director of the Telecommunication Standardization Bureau, in collaboration with the Directors of the other Bureaux  1 to report on progress on the application of this resolution annually to the ITU Council and to the next world telecommunication standardization assembly;  2 to keep up to date the calendar of events relevant to ICTs, the environment and climate change based on proposals by TSAG and in close collaboration with the other two Sectors;  3 to launch pilot projects, aimed at bridging the standardization gap, on environmental sustainability issues, in particular in developing countries;  4 to support the development of reports on ICTs, the environment and climate change, taking into consideration relevant studies, in particular the ongoing work of Study Group 5, including issues related to, inter alia, circular economy, green data centres, smart buildings, green ICT procurement, cloud computing, energy efficiency, smart transportation, smart logistics, smart grids, water management, adaptation to climate change and disaster preparedness, and how the ICT sector contributes to annual reductions in GHG emissions, and submit the reports as soon as possible to Study Group 5 for its consideration;  5 to organize forums, workshops and seminars for developing countries, to raise awareness and identify their particular needs and challenges on environment and climate-change issues;  6 to develop, promote and disseminate information and training programmes on ICTs, environment and circular economy;  7 to report on progress of the ITU/WMO/UNESCO IOC Joint Task Force to investigate the potential of using submarine telecommunication cables for ocean and climate monitoring and disaster warning;  8 to promote the ITU-T Global Portal on ICTs, environment and climate change and its use as an electronic forum for exchange and dissemination of ideas, experience and best practices on ICTs, the environment and climate change;  9 to report to TSAG on the progress regarding invites the Secretary-General below |
| RESOLUTION 76  Studies related to conformance and interoperability testing, assistance to developing countries[[2]](#footnote-2)1, and a possible future ITU Mark programme | **invites**  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,  **instructs**  the Director of the Telecommunication Standardization Bureau  1 in cooperation with the Radiocommunication Bureau and the Telecommunication Development Bureau (BDT), to continue to conduct as necessary exploratory activities in each region in order to identify and prioritize the problems faced by developing countries related to achieving interoperability of telecommunication/ICT equipment and services;  4 in cooperation with the Director of BDT, to implement an ITU C&I programme for possible introduction of a database identifying products’ conformance and origin; |
| RESOLUTION 78  Information and communication technologies and standards for improved access to e-health services | **noting**  a) ongoing work and studies in Study Group 2 of the ITU Telecommunication Development Sector (ITU-D) under Question 14-3/2, on information and telecommunications/ICT for e-health;  e) ongoing work in ITU-D to reduce the digital divide in the area of e-health  **resolves**  to instruct the Director of the Telecommunication Standardization Bureau, in collaboration with the Director of the Telecommunication Development Bureau and the Director of the Radiocommunication Bureau  1 to consider with priority the enhancement of telecommunication/ICT initiatives in e health and to coordinate their related standardization activities;  2 to continue and further develop ITU activities on telecommunication/ICT applications for e-health in order to contribute to the wider global efforts concerning e-health;  3 to work collaboratively with WHO, academia and other relevant organizations on activities related to e-health in general and to this resolution in particular;  4 to organize seminars and workshops on e-health for developing countries1 and gauge the needs of the developing countries, which are the countries with the greatest need for e-health applications, |
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1. These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition. [↑](#footnote-ref-1)
2. [↑](#footnote-ref-2)