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| C:\Users\ponder\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\BDT-25th_anniversary_2017-Logo_411959-3_transparent.png | **电信发展顾问组（TDAG）**  **第22次会议，2017年5月9-12日，日内瓦** | C:\Users\murphy\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\PQ94T9LJ\bd_C_25Years_Horizontal-411959.jpg |
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|  | | **文件** **TDAG17-22/****5-C** |
|  | | **2017年3月6日** |
|  | | **原文：****英文** |
| 电信发展局主任 | | |
| WTSA-16与ITU-D工作相关的工作成果报告 | | |
|  | | |

引言

世界电信标准化全会（WTSA）于2016年10月25日至11月3日在突尼斯亚斯敏-哈马马特举行，在此之前召开了全球标准专题研讨会（2016年10月24日）。

为WTSA编制的文稿大致分为三大类：与ITU-T研究组工作相关的提案、与ITU-T建议书相关的提案和与WTSA决议相关的提案。

相当多的WTSA-16决议涉及发展中国家在ICT促发展方面的需求，因此与ITU-D的工作有关。

其中大部分在执行部分包含与ITU-D及其相关研究组和电信发展局主任开展协作与合作的内容。在一些决议中，明确提到支持ITU-D正在开展的工作。

表1列出了对ITU-D的工作产生影响的WTSA决议。与ITU-D相关的详细案文摘录见附件。

表2概述了与ITU-D的工作相关的WTSA决议。这些决议的详细案文见附件。

**结论**

经WTSA-16批准的很多新决议以及经修订的决议均提出ITU-D在这些决议的落实方面参与开展协作工作。

有若干决议的主要议题（如国际电联研究组的职权、物联网（IoT）、OTT（过顶业务）、网络安全、国际移动漫游（IMR）、弥合金融包容性差距、假冒伪劣、智慧非洲、缩小标准化工作差距、IPv6、无障碍获取、人体接触电磁场、电子卫生等）涉及ITU-D工作的关键领域，因为其中要求向成员国提供帮助，重点是发展中国家，主要是提高认识、组织讲习班和研讨会，以及建立对话平台及人员和机构能力建设。

考虑到大部分与ITU-D工作相关的WTSA-12决议促使WTDC-14审议并批准了相应决议，本文件提供了WTSA-16批准的决议的背景信息，供成员在筹备WTDC-17的框架下考虑，指导与有关议题相关的ITU-D工作。

**表1**

**对ITU-D的工作产生影响的WTSA决议**

|  |  |  |
| --- | --- | --- |
| 状态 | 决议号 | 标题 |
| 新 | 待定 | 评估世界电信标准化全会各项决议的落实情况 |
| 新 | 待定 | 加强国际电联电信标准化部门在国际移动通信领域与非无线电问题相关的标准化活动 |
| 新 | 待定 | 国际移动漫游（IMR） |
| 新 | 待定 | 有关保护电信/信息通信技术业务用户的研究 |
| 新 | 待定 | 推广信息通信技术的使用，缩小金融包容性方面的差距 |
| 新 | 待定 | 国际电联电信标准化部门开展打击假冒电信/信息通信技术设备的研究 |
| 新 | 待定 | 促进《智慧非洲宣言》的实施 |
| 新 | 待定 | 为促进全球发展加强关于物联网和智慧城市及社区的标准化活动 |
| 新 | 待定 | 国际电联电信标准化部门为提高对服务质量相关最佳做法和政策的认识而推出的举措 |
| 新 | 待定 | 打击盗窃移动电信设备的行为 |
| 修订 | 2 | 国际电联电信标准化部门研究组的责任与职权 |
| 修订 | 18 | 国际电联无线电通信部门、国际电联电信标准化部门与国际电联电信发展部门之间工作的分工以及加强协调及合作的原则和程序 |
| 修订 | 29 | 国际电信网上的迂回呼叫程序 |
| 修订 | 44 | 缩小发展中国家与发达国家之间的标准化工作差距 |
| 修订 | 45 | 有效协调国际电联电信标准化部门所有研究组开展的标准化工作以及国际电联电信标准化顾问组的作用 |
| 修订 | 50 | 网络安全 |
| 修订 | 52 | 抵制和打击垃圾信息 |
| 修订 | 54 | 创建区域组并向区域组提供帮助 |
| 未修改 | 58 | 重点鼓励发展中国家建立国家计算机事件响应组 |
| 修订 | 64 | 互联网协议地址分配以及推进向IPv6的过渡及其部署 |
| 修订 | 69 | IP地址分配以及推进向IPv6的过渡及其部署 |
| 修订 | 72 | 与人体暴露于电磁场相关的测量与评估关切 |
| 修订 | 73 | 信息通信技术、环境与气候变化 |
| 修订 | 76 | 有关一致性和互操作性测试、向发展中国家提供帮助和未来可能采用的国际电联标志计划的研究 |
| 修订 | 78 | 促使普及电子卫生服务的信息通信技术应用和标准 |

**表2**

**与ITU-D的工作相关的WTSA决议概述**

|  |
| --- |
| 新决议“评估世界电信标准化全会各项决议的实施情况”责成电信标准化局主任与其他各局主任协作采取必要措施，对所有相关各方落实WTSA各项决议的情况进行评估。 |
| 新决议“加强国际电联电信标准化部门在国际移动通信领域与非无线电问题相关的标准化活动”责成国际电联电信标准化部门第13研究组充实完善ITU-T有关IMT标准化活动的路线图，其工作项目应包含推进IMT非无线网络的标准化工作，并作为IMT（特别是IMT-2020）的牵头组使命，与ITU-R和ITU-D相关研究组分享这一路线图。 |
| 新决议“国际移动漫游（IMR）”责成电信标准化局主任与电信发展局（BDT）主任协作增强人们对降低IMR费率给消费者所带来益处的认识并鼓励三个局的主任探索可提高国际电联IMT相关工作效率的新途径。 |
| 新决议“有关保护电信/信息通信技术业务用户的研究”请电信标准化局主任协助电信发展局主任落实第196号决议（2014年，釜山）。 |
| 新决议“推广信息通信技术的使用，缩小金融包容性方面的差距”责成电信标准化局主任协同其他局主任就本决议的落实进展每年向理事会以及向2020年世界电信标准化全会做出报告，支持制定数字金融包容性报告和最佳做法以及为国际电联成员举办讲习班和研讨会。 |
| 新决议“ITU-T有关打击假冒电信/信息通信技术设备的研究”责成电信标准化局主任与电信发展局主任密切协作，在国际电联各区域组织讲习班和各项活动，协助发展中国家培训人力资源打击假冒和被篡改电信/ICT设备的传播，与相关利益攸关方密切协作，协助各成员国采取必要行动来应用相关ITU-T建议书。进一步责成电信标准化局主任与电信发展局和无线电通信局主任密切协作，协助各成员国解决与假冒和被篡改电信/ICT设备相关的关切。 |
| 新决议“促进《智慧非洲宣言》的实施”责成电信标准化局主任与电信发展局主任协作，建立ITU-T研究组与智慧非洲办事处之间的协作与合作机制，制定相关标准，继续支持《智慧非洲宣言》，为智慧非洲和非洲各区域组提供帮助，并加强对智慧非洲成员国的培训和指导。 |
| 新决议“为促进全球发展加强关于物联网和智慧城市及社区的标准化活动”责成电信标准化局主任与电信发展局主任和无线电通信局主任协作起草报告，并特别考虑到发展中国家在研究IoT及其应用、传感网络、业务和基础设施方面的需求；继续传播与IoT和SC&C相关的国际电联出版物，针对此主题组织论坛、研讨会和讲习班，同时特别考虑到发展中国家的需求。 |
| 新决议“国际电联电信标准化部门为提高对服务质量相关最佳做法和政策的认识而推出的举措”责成电信标准化局主任，与电信发展局主任密切协作，协助发展中国家和最不发达国家确定建立国家质量测量框架的人员和机构能力建设机遇，在每个区域开展活动，以确定和重点解决相关问题，协助发展中国家和最不发达国家制定和落实相关行动，以提高服务质量，使用户随时了解情况。 |
| 新决议“打击移动电信设备盗窃”做出决议，责成电信标准化局主任与电信发展局和无线电通信局主任协作，编纂有关业界或政府制定的最佳做法，推动建议书、技术报告和导则的标准化和传播，与本部门相关研究组、移动设备制造商、电信网络组件制造商、运营商、电信标准制定组织以及与这些事项相关的潜力技术的开发人员磋商，并应要求向成员国提供帮助。 |
| 第2号决议“国际电联电信标准化部门研究组的责任与职权”规定了ITU-T各研究组的职权、主要职责和指导要点。要求第13研究组和第20研究组在履行其职权时与ITU-D磋商并开展合作。 |
| 第18号决议“国际电联无线电通信部门、国际电联电信标准化部门与国际电联电信发展部门之间工作的分工以及加强协调及合作的原则和程序”请RAG、电信标准化顾问组（TSAG）、电信发展顾问组（TDAG）继续帮助共同关心问题跨部门协调组确定三个部门共同关注的议题及增强各部门之间就共同感兴趣的问题开展合作与协作的机制，请无线电通信局（BR）、电信标准化局（TSB）和电信发展局（BDT）主任以及跨部门协调任务组（ISC-TF）向共同关心问题跨部门协调组报告。 |
| 第29号决议“国际电信网上的迂回呼叫程序”责成电信标准化局主任继续与电信发展局主任合作，为发展中国家参加和进行这种研究并利用其成果和为落实本决议提供方便。 |
| 第44号决议“缩小发展中国家与发达国家之间的标准化工作差距”做出决议，附于本决议之后的行动计划应予以继续且每年予以审议，以考虑到发展中国家的需求；亦责成ITU-T酌情与其它部门（特别是国际电联电信发展部门（ITU-D））协作起草一份计划，以协助发展中国家制定推动将创新与标准化进程挂钩的战略和方法，协助发展中国家制定可协调各国行业与创新战略的手段，以实现最大限度影响其社会经济生态系统的目标，协助发展中国家制定建立国家/国际新兴技术测试实验室的战略。进一步做出决议，国际电联区域代表处参与电信标准化局的活动，以便促进和协调标准化活动。此外责成电信标准化局主任与电信发展局主任和无线电通信局主任协作，继续实现行动计划的目标以及其他与伙伴关系和协作相关的活动。进一步责成各研究组，在编制ITU-T新建议书或修订建议书时，酌情继续与ITU-D各研究组开展联络活动，最后请电信标准化局主任，与电信发展局和无线电通信局（BR）的主任密切合作，鼓励结成伙伴关系，并与电信发展局主任协调和协作，考虑与ITU-T区域组会议同时同地举办讲习班。 |
| 第45号决议“有效协调国际电联电信标准化部门所有研究组开展的标准化工作以及国际电联电信标准化顾问组的作用”做出决议，在与一个以上研究组相关的高度优先的标准化问题和工作方面，应确保ITU-T活动的协调与国际电联无线电通信部门和电信发展部门以及其它外部标准化机构开展合作和协调。 |
| 第50号决议“网络安全”指出ITU-T应与ITU-D密切合作，特别是围绕第3/2号课题，责成电信标准化局主任在有关“ICT安全标准路线图”和ITU-D所开展的网络安全相关努力的基础上，清点国家、区域和国际性举措并继续加以完善和更新，支持电信发展局主任协助成员国在发展中国家之间建立适当的框架。 |
| 第52号决议“抵制和打击垃圾信息”责成相关研究组，继续与国际电联电信发展部门（ITU-D）开展协作，以便作为紧迫任务，继续制定技术建议书，从而通过联合讲习班、培训等方式交流最佳做法并传播信息。进一步责成国际电联电信标准化部门第17研究组，支持ITU-D第2研究组开展抵制和打击垃圾信息的工作，并就垃圾信息政策、监管和经济问题及其产生的影响为不同区域提供技术培训、举办讲习班。 |
| 第54号决议“创建区域组并向其提供帮助”责成电信标准化局主任与电信发展局主任协作，为创建区域组并确保其顺利工作提供一切必要的支持，考虑在相关区域尽可能与ITU-T区域组会议同期举办讲习班，反之亦然，采取有利于这些区域组组织会议和讲习班的所有必要措施。亦呼吁电信标准化局主任与电信发展局主任合作，以便继续向区域组提供具体帮助，鼓励继续开发计算机化应用工具，采取适当措施，为现有的和未来的区域组召开会议提供便利。 |
| 第58号决议“鼓励在各成员国（尤其是在发展中国家）建立国家计算机事件响应团队（CIRT）”责成电信标准化局主任与电信发展局主任协作，确定建立CIRT的最佳做法，确定需要建立CIRT的国家，与国际专家和机构协作，建立国家CIRT，酌情提供支持，推进国家CIRT之间的协作。 |
| 第64号决议“互联网协议地址分配以及推进向IPv6的过渡及其部署”认识到将继续由国际电联电信发展局（BDT）牵头开展未来的IPv6人员能力建设工作，如有需要，可与其他相关组织开展协作。亦责成电信标准化局主任与电信发展局主任密切协作，继续国际电联电信标准化局（TSB）和BDT正在开展的活动，更新和维护提供全球IPv6活动信息的网站，提高对部署IPv6的重要性的认识，推进联合培训活动，在针对工程师、网络运营商和内容提供商的IPv6培训中向电信发展局提供支持。 |
| 第69号决议“互联网资源和电信/信息通信技术的非歧视获取和使用”请电信标准化局、无线电通信局和电信发展局主任为本决议的进展报告做贡献。 |
| 第70号决议“残疾人和有具体需求人士对电信/信息通信技术的无障碍获取”责成电信标准化局主任，帮助国际电联各部门制定具有ICT专长的残疾人参加的实习计划，请电信标准化局主任与无线电通信局（BR）和电信发展局（BDT）主任在无障碍获取相关活动中开展协作，在提高人们对电信/ICT无障碍获取的认识及其主流化方面开展协作，与ITU-D在无障碍获取相关活动中开展协作 |
| 第72号决议“与人体暴露于电磁场相关的测量与评估关切”做出决议，请ITU-T扩大并继续其各项工作，包括与ITU-R和ITU-D各研究组合作，责成电信标准化局主任与其它两个局的主任密切协作，支持编写确定发展中国家需求的报告，在发展中国家举办讲习班，在发展中国家建设配备用于持续监测EMF水平的测试台的区域中心时向其提供支持。 |
| 第73号决议“信息通信技术、环境与气候变化”考虑到ITU-D和ITU-R在气候变化与ICT作用方面采取的举措。进一步责成责成电信标准化局主任与其他两个局的主任协作落实本决议。 |
| 第76号决议“有关一致性和互操作性测试、向发展中国家提供帮助和未来可能采用的国际电联标志计划的研究”请成员国和ITU-D部门成员评价和评估尤其在发展中国家缺乏C&I测试的风险和各种成本，并根据最佳做法分享必要信息和建议，以避免损失，并责成电信标准化局主任与无线电通信局和电信发展局合作，必要时继续在各地区开展探索活动，以便确定和重点解决发展中国家在实现电信/ICT设备和服务互操作性方面面临的问题，并与电信发展局主任合作，落实国际电联一致性和互操作性项目，以便可能引入一个识别产品一致性及原产地的数据库。 |
| 第78号决议“促使普及电子卫生服务的信息通信技术应用和标准”注意到ITU-D第2研究组在第14-3/2号课题方面持续开展的工作和进行的研究，责成电信标准化局主任与电信发展局主任和无线电通信局主任协作，重点考虑强化电子卫生领域的各项电信/ICT举措，并协调相关标准化活动，继续并进一步开展国际电联关于电子卫生领域电信/ICT应用的活动，与世界卫生组织（WHO）、学术界和其他相关组织就与电子卫生普遍相关且与本决议具体相关的活动开展协作，组织有关电子卫生的研讨会和讲习班。 |

**Annex**

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

|  |  |
| --- | --- |
| 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 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)