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| **Telecommunication Development Advisory Group (TDAG)**  **24th Meeting, Geneva, 3-5 April 2019** | C:\Users\comas\AppData\Local\Temp\Rar$DRa0.735\jpg\ITU official logo_blue_RGB.jpg |
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|  | **Document** **TDAG-19/****40-E** |
|  | **2 April 2019** |
|  | **English only** |
| Chairman of ITU-D Study Group 1; Chairman of ITU-D Study Group 2 | |
| Liaison statement from the Chairmen of ITU-D SG1 and SG2 to TDAG  on the contributions of ITU-D Study Groups 1 and 2 to the implementation of WTDC Resolution 9 | |
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| **Summary:**  This liaison statement from ITU-D Study Groups 1 and 2 to TDAG shares a proposal for how the ITU-D study groups could engage their study Questions in the implementation of WTDC Resolution 9 (Rev. Buenos Aires, 2017) on Participation of countries, particularly developing countries, in spectrum management.  **Action required:**  TDAG is invited to consider this document and provide guidance as is deemed appropriate.  **References:**  n/a | |

**LIAISON STATEMENT from the Chairmen of ITU-D SG1 and SG2 to TDAG on THE CONTRIBUTION OF ITU-D STUDY GROUP 1 and 2 TO THE IMPLEMENTATION OF wtdc RESOLUTION 9**

**ITU-D Study Group 1: Enabling environment for the development of telecommunications/ICTs**

**ITU-D Study Group 2: ICT services and applications for the promotion of sustainable development**

29 March 2019

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| **To:** | Telecommunication Development Advisory Group (TDAG) |
| **From:** | ITU-D Study Group 1 (SG1), ITU-D Study Group 2 (SG2) |
| **For:** | Action |
| **Approval:** | Chairman of ITU-D Study Group 1; Chairman of ITU-D Study Group 2 on 29 March 2019 |
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In an effort to implement Resolution 9 (Rev. Buenos Aires, 2017) based on the outcome of WTDC 2017, and in particular to fulfil the needs of the developing countries stated therein (see **Annex 1** for details on the specific needs), ITU-D study groups shall need close collaboration with the relevant parties in ITU-R to achieve this goal.

**ITU-D Study Group 1 (Enabling environment for the development of telecommunications/ICTs)** and **ITU-D Study Group 2 (ICT services and applications for the promotion of sustainable development)** would like to share with TDAG a proposal for how ITU-D study groups could contribute to the implementation of Resolution 9 (Rev. Buenos Aires, 2017) within their scope of work.

**ITU-D Study Group 1** has identified the following relevant study Questions that seek a close collaboration with ITU‑R based on their scope of work and in response to the needs of the developing countries. The respective Question’s relation to items in Resolution 9 are also specified.

* **Question 1/1: Strategies and policies for the deployment of broadband in developing countries** (Needs 1, 2,3, 4,7,10, 11) (*Question contact: Co-Rapporteur Mr Vadim Kaptur*)

For assessing the economic and social benefits raise awareness of the importance and the linkage between efficient spectrum management and the broadband penetration. Spectrum sharing and new licensing schemes - Spectrum sharing provides better utilization of the scarce resource of radio spectrum and avail more spectrum to be used/accessed by more than one party. The group should study different policies enabling spectrum sharing to make more spectrum available for broadband access. Examples of such schemes and licensing methods include combination/aggregation of licensed and unlicensed bands (e.g., LTE Unlicensed (LTE-U) and Licensed-Assisted Access (LAA) ). This discussion should cover both licensed and license-exempt approaches. Emerging technologies for broadband access - The group should consider the ITU-R studies and the WRC decisions related to the spectrum allocated (or to be allocated) to IMT-2020 (also the additional spectrum above 24 GHz). The group should also consider all relevant publications and recommendations by ITU-R in relation to “IMT for 2020 and beyond”. High Altitude Platform Stations (HAPS) - reference frequency bands allocated to HAPS according to the ITU Radio Regulations, and WRC 19 agenda item 1.14 aiming at facilitating access to broadband applications delivered by HAPS, pursuant to Resolution 160 (WRC-15). Wireless Access Systems/Radio Local Area Networks (WAS/RLAN) - follow up on studies mandated by Resolution 239 (WRC-15) wherein ITU-R was invited to conduct studies concerning Wireless Access Systems including radio local area networks (WAS/RLAN) in the frequency bands between 5 150 MHz and 5925 MHz, considering the contribution of WAS/RLAN applications to global economic and social development, and the need for additional spectrum. There should be considerations of different spectrum bands along different standards (IEEE 802.11xx) that RLAN systems are using (5 GHz, 60 GHz, etc.).

* **Question 2/1: Strategies, policies, regulations and methods of migration and adoption of digital broadcasting and implementation of new services** (Needs 1, 2,3, 4, 7, 8, 9, 10, 11) (*Question contact: Rapporteur Mr Roberto Hirayama*)

Methods of migration to digital broadcasting - Many developing countries are still undergoing transition from analog to digital broadcasting. Such countries need special assistance to complete such transition, especially in terms of the frequency plans during the simulcast and upon completion of transition. Implementation of new services using the digital dividend - developing countries need to be aware of possible use cases and services that can make use of the resulting digital dividend. There is also a need to follow up on the new released spectrum below the 700 band.

* **Question 4/1: Economic policies and methods of determining the costs of services related to national telecommunication/ICT networks** (Need 5) (*Question contact: Rapporteur Mr Arseny Plossky*)

Spectrum sharing framework within infrastructure sharing - Analyze the use of spectrum sharing within the model of active infrastructure.

* **Question 5/1: Telecommunications/ICTs for rural and remote areas** (Needs 1, 2,3, 4,7,10, 11)(*Question contact: Co-Rapporteur Mr Khalil Alsobhi*)

It is a challenge in developing countries to provide broadband services considering the topological and economical situations in rural areas. Ongoing advancements in satellite networks, ground equipment and applications have made satellite technologies an increasingly cost effective solution, particularly to ensure coverage in remote and rural areas. Satellite systems can also be used to complement or replace the IMT coverage in many areas. Three main areas could be considered: 1) For assessing the economic and social benefits - the relation between availing spectrum access (to citizens and to IoT devices) at remote and rural areas and the impact in terms of the resulting economic and social development; 2) Satellite systems - different satellite systems and corresponding frequency bands of operation in order to serve the residents in remote areas; Remote IoT devices - technologies and corresponding spectrum issues related to the connecting IoT devices that can be spread and used in remote areas for environmental monitoring and business monitoring/control (e.g., gas pipes).

* **Question 7/1: Access to telecommunication/ICT services by persons with disabilities and other persons with specific needs** (Need 7) (*Question contact: Rapporteur Amela Odobasic*)

Discussions on short-range devices (SRD) and relevant ITU-R studies to make sure that persons with disabilities (PwDs) can have robust access and utilization to SRD that can operate in less crowded and less interfered frequency bands.

**ITU-D Study Group 2** has identified the following relevant study Questions that seek a close collaboration with ITU‑R based on their scope of work and in response to the needs of the developing countries. The respective Question’s relation to items in Resolution 9 are also specified.

### Question 1/2: Creating the smart cities and society: Employing ICTs for sustainable social and economic development (Needs 1, 2, 4, 6, 7, 9, 10) (*Question contact: Co-Rapporteur Mr Fadel Digham*)

Connectivity is a key layer in smart cities and communities. IoT and short range devices (SRDs) are clear examples to be used in different sectors such as transportation and utilities. There is a need then to study and present different scenarios for connectivity and monitoring purposes. In addition, new generations of cellular and wireless systems are to be utilized and considered while planning for a smart city/community.

### Question 4/2: Assistance to developing countries for implementing conformance and interoperability (C&I) programs and combating counterfeit ICT equipment and theft of mobile devices (Needs 1, 2, 6, 7, 9, 10) (*Question contact: Rapporteur Mr Cheikh Tidjani Oudaa)*

The group can address the needs to implement conformance programs of devices, especially those of short range (SRD), to make sure that they operate in accordance to the Radio Regulations, national regulations and the Table of Frequency Allocations, in order to avoid interference with other services and devices.

### Q7/2: Strategies and policies concerning human exposure to electromagnetic fields (Needs 1, 4, 6, 7, 9, 10) (*Question contact: Co-Rapporteur Mr Haim Mazar*)

The question studies compilation and analysis of the regulatory policies concerning human exposure to EMF that are being considered or implemented for authorizing the installation of radiocommunication sites. In addition, the scope involves proposing guidelines and best practices on this matter as well as studying the challenges and opportunities of developing technical regulations on the limits for maximum exposure to non-ionizing electromagnetic radiation from radio base stations and specific absorption rate levels in wireless devices.

To ensure that each Question gathers information on spectrum specific requirements and needs, a contact point from within each Rapporteur Group has been assigned this task. In addition, a Vice-Chairman from SG1 (*Mr Roberto Hirayama, Brazil*) and a Vice-Chairman from SG2 (*Ms Nora Basher, Sudan*) will be responsible for coordinating WTDC Resolution 9 issues with the contact points for each study Question. The two vice-chairmen will also be preparing (with the assistance of the BDT Focal Point) and submitting a summary of the compiled findings on WTDC Resolution 9 issues to the ITU-D Study Group 1 and 2 Chairmen for each annual study group meeting, who in turn will report the relevant information to the BDT Director. The BDT Director can then send a summary of these findings to the BR Director which can serve as the basis for a contribution to TDAG on the implementation of WTDC Resolution 9 each year.

**Annex 1: The needs of the developing countries as stated in WTDC Resolution 9 (Rev. Buenos Aires, 2017)**

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| **Need index** | **Description** |
| **Need 1** | Assistance in raising the awareness of national policy-makers as to the importance of effective spectrum management for a country's economic and social development |
| **Need 2** | Training the staff and dissemination of available ITU documentation |
| **Need 3** | Assistance in developing methodologies for establishing national tables of frequency allocations and spectrum redeployment |
| **Need 4** | Assistance in setting up computerized frequency management and monitoring systems |
| **Need 5** | Economic and financial aspects of spectrum management |
| **Need 6** | Assistance with preparations for world radiocommunication conferences (WRC) and with follow-up and implementation of WRC decisions |
| **Need 7** | Assistance with participation in the work of the relevant ITU-R study groups and their working parties |
| **Need 8** | Transition to digital terrestrial television broadcasting |
| **Need 9** | Assistance in identifying the most efficient ways to utilize the digital dividend |
| **Need 10** | Identification of emerging technologies and approaches in using spectrum |
| **Need 11** | Innovative ways of spectrum licensing |
| **Need 12** | Assistance with interference caused by devices in derogation of national spectrum allocations |
| **Need 13** | Assistance in resolving seasonal interference caused by anomalous propagation of radio waves |

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