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| C:\Users\comas\AppData\Local\Temp\Rar$DRa0.735\jpg\ITU official logo_blue_RGB.jpg**TDAG Working Group on Resolutions, Declaration and Thematic Priorities****21 October 2020, Virtual** |
|  | **Document TDAG-WG-RDTP/8-E** |
|  | **9 October 2020** |
|  | **English only** |
| **Source:** | Chairman of ITU-D Study Group 1; Chairman of ITU-D Study Group 2 |
| **Title:** | Liaison statement from the Chairmen of ITU-D SG1 and SG2 to TDAG-WG-RDTP on discussions related to WTDC Resolution 1, future study group Questions, streamlining of WTDC Resolutions and WTDC Declaration |

**Summary:**

The attached is a liaison statement received for information from the chairmen of ITU-D Study Groups 1 and 2, on discussions related to WTDC Resolution 1, on future study group Questions, on streamlining of WTDC Resolutions and on the WTDC Declaration.

**Action required:**

TDAG is invited to note this document and provide guidance as deemed appropriate.

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| **TelecommunicationDevelopment Sector****Study Groups** | A close up of a sign  Description automatically generated |
| **ITU-D Study Group 1 and 2 Plenaries and Rapporteur Group Meetings** |
| **Geneva, 21 September – 16 October 2020** |
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|  | **Document** **[SG1RGQ/400-E](http://www.itu.int/md/D18-SG01.RGQ-C-0399/)****Document** [**SG2RGQ/285-E**](http://www.itu.int/md/D18-SG02.RGQ-C-0285/) |
| **8 October 2020** |
| **English only** |
| All Questions |  |
| SOURCE: | Chairman of ITU-D Study Group 1; Chairman of ITU-D Study Group 2 |
| TITLE: | Liaison statement on discussions related to WTDC Resolution 1, future study group Questions, streamlining of WTDC Resolutions and WTDC Declaration |

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| **Abstract:**This liaison statement is sent for information to the TDAG-WG-RDTP and shares an update on preliminary views of ITU-D Study Group 1 (SG1) and ITU-D Study Group 2 related to:* WTDC Resolution 1 (Rev. Buenos Aires, 2017) on “Rules of procedure of the ITU Telecommunication Development Sector”
* Future study group Questions, in relation with WTDC Resolution 2 (Rev. Buenos Aires, 2017) on “Establishment of study groups”
* Streamlining of WTDC Resolutions
* WTDC Declaration
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**LIAISON STATEMENT from the Chairmen of ITU-D SG1 and SG2 to TDAG-WG-RDTP on discussions related to WTDC Resolution 1, future Study group Questions, streamlining of WTDC Resolutions and WTDC Declaration**

**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**

8 October 2020

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| **To:** | TDAG Working Group on WTDC Resolutions, Declaration and Thematic Priorities (TDAG-WG-RDTP) |
| **From:** | Chairman of ITU-D Study Group 1; Chairman of ITU-D Study Group 2 |
| **For:** | Information |
| **Approval:** | Chairman of ITU-D Study Group 1; Chairman of ITU-D Study Group 2 on 8 October 2020 |
| **Contacts:** | Ms Regina Fleur Assoumou Bessou, Chairman, ITU-D Study Group 1E-mail: bessou.regina@artci.ci Mr Ahmad Reza Sharafat, Chairman, ITU-D Study Group 2E-mail: ahmad.sharafat@gmail.com  |
| **BDT Focal Point:** | Ms Eun-Ju Kim, Chief, Innovation and Partnership Department (BDT/IP)E-mail: eun-ju.kim@itu.int |

**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-WG-RDTP an update on preliminary views of ITU-D Study Group 1 (SG1) and ITU-D Study Group 2 related to:

1. WTDC Resolution 1 (Rev. Buenos Aires, 2017) on “Rules of procedure of the ITU Telecommunication Development Sector”
2. Future study group Questions, in relation with WTDC Resolution 2 (Rev. Buenos Aires, 2017) on “Establishment of study groups”
3. Streamlining of WTDC Resolutions
4. WTDC Declaration

Some preliminary views shared on these four topics are reported in the following sections. These views are not yet formally agreed by ITU-D Study Groups and will be further developed until the next annual meetings of ITU-D SG1 and SG2 in March 2021.

1. **WTDC Resolution 1 (Rev. Buenos Aires, 2017), “Rules of procedure of the ITU Telecommunication Development Sector”**
* **Inactive management team members**: views were expressed on how to ensure more active engagement of the appointed management team members, as some of them were not sufficiently active to contribute to the work of the SGs during this study period. Several proposals were provided, including pre-assignment of specific roles, mechanisms to encourage more active participation and contribution to the work, and mechanism to automatically remove non-active members from management teams as applicable (Refer to **Annex 1**).
* **Annual deliverables**: these documents were so far published on the ITU-D study group website under the auspices of the Chairmen of Study Groups 1 and 2, under a section titled “Ongoing Work”[[1]](#footnote-1). Views were expressed whether annual deliverables should be defined in Resolution 1 as a new type of document if needed, or be reflected in an existing type of document, such as guidelines.
* **Work on output reports:** views were expressed that previous output reports could be continuously revised, as done in the other ITU sectors, so that the reports of a new study period can focus on new topics only. The possibility of appointing editors within the allowed budgetary limits was discussed to improve the readability of important deliverables.
* **Fully virtual, hybrid and physical meetings:** views were shared on how to best harmonize the use of fully virtual, hybrid and physical meetings, considering the current COVID-19 and other similar situations in the future. There were discussions whether physical or at least hybrid meetings should be kept to the extent possible for decision-making, especially to handle controversial items, while virtual meetings can focus on non-decision-making items, and which often attract more participants and have additional interaction channel as provided by the chat facility. Some opinions were also expressed about the appropriate duration and times of the study group and rapporteur group meetings.

A comprehensive document prepared and submitted by appointed coordinators (Mr Arseny Plossky (Russian Federation) and Ms Alina Modan (Romania)) can be found in **Annex 1** to this liaison statement, and is also available in Documents [SG1RGQ/378](http://www.itu.int/md/D18-SG01.RGQ-C-0378/) and [SG2RGQ/244](http://www.itu.int/md/D18-SG02.RGQ-C-0244/).

1. **Future study group Questions, in relation with WTDC Resolution 2 (Rev. Buenos Aires, 2017), “Establishment of study groups”**

All rapporteur group management teams under ITU-D SG1 and SG2 were consulted on their views related to the future of their respective Question. The consultations included whether the Question should continue and if so, how the scope should be updated and what are some possible new topics, consideration of possible needs for harmonization with other Questions, and other suggestions including possible new approaches.

Regarding the proposed items for study, several Questions identified for example 1) the impact of pandemic situations such as COVID-19 to the Questions and ways to address them better through ICTs, and 2) the application of emerging technologies such as AI, IoT and 5G in the context of the Questions and their potential benefits and limitations for ICT development. But such examples are by no means exhaustive, and several items specific to each Question were also proposed. Some Questions may identify areas that require some harmonization and deeper analysis with other Questions, and which may be resolved through fruitful collaborations between the management teams of the identified Questions. Discussions will continue through coordination within the management teams of each Study Group and between the two Study Groups to reach harmonization of future work.

Some Questions suggested also additional aspects to consider, such as: 1) considering the Questions as part of a wider vision and objective (holistic approach) rather than individually; 2) understanding the history (e.g. keywords and main technologies used) from previous study periods and seeking a continuity and evolution from one period to the next with a view to avoiding each study period becomes an isolated silo; 3) connection between the Questions and other BDT initiatives and projects.

Comprehensive documents submitted by the appointed coordinators (Mr Roberto Hirayama (Brazil) and Mr Abdelaziz Alzarooni (UAE)) can be found in **Annex 2** for SG1 (also available in Document [SG1RGQ/313](https://www.itu.int/md/D18-SG01.RGQ-C-0313)) and **Annex 3** for SG2 (also available in Document [SG2RGQ/280](https://www.itu.int/md/D18-SG02.RGQ-C-0280)) to this liaison statement.

1. **Streamlining of WTDC Resolutions**

Preliminary views were made to reveal potential areas where the number of WTDC Resolutions could be reduced. The reasons identified were that some provisions are sometimes duplicated across several Resolutions, some Resolutions are old and have not been updated for several conferences, some topics between Resolutions are closely related to each other, or are already standardized in the other ITU sectors.

The list of areas identified and associated Resolutions (only numbers are shown for simplicity, proposed Resolution numbers to serve as the base are in **bold**) for potential streamlining are as follows:

* Rules and procedures (Resolutions **1**, 24, 61 and 81)
* Membership (Resolutions **71** and 27)
* Spectrum management (Resolutions **9** and 10). Caution was expressed not to lose the essence and objectives of Resolution 9, if it is used as a basis to streamline with Resolution 10.
* Access to technologies (Resolutions **15** and 47)
* Internet access (Resolutions **23** and 63)
* Security in the use of ICTs (Resolution **45** and 69)
* Broadband development (Resolution **77** and 43)

A comprehensive document prepared and submitted by the appointed coordinator in both Study Groups (Mr Arseny Plossky (Russian Federation)) can be found in **Annex 4** to this liaison statement (also available in Documents [SG1RGQ/379](http://www.itu.int/md/D18-SG01.RGQ-C-0379/) and [SG2RGQ/251](http://www.itu.int/md/D18-SG02.RGQ-C-0251/)).

1. **Themes for WTDC Declaration**

An initial proposal for the theme in the WTDC Declaration was “**Digital transformation for SDGs”** or **“digital transformation for development”**: views were expressed that digital transformation should be prioritized to foster digital economy, ensure the access to and use of ICTs to support the development of inclusive digital societies, and to provide digital information products and services to all people in emerging global situations like the COVID-19 pandemic.

Some additional points that were suggested to be included in the WTDC Declaration are:

* Digital transformation technologies.
* Policies and regulatory aspects for enabling digital transformation at national, regional and international levels.
* Bridging the digital divide and standardization gap.
* Promoting and encouraging increased interest in the ICT sector to attract more investment/funding.
* Universally accessible, ubiquitous, secure and affordable telecommunications/ICTs.
* Inclusive digital economy at national, regional, and international levels.

There were also views that the Declaration should be concise but needs to reflect the current state of the ICT sector and be forward looking at the same time.

A comprehensive document prepared and submitted by the appointed coordinators (Ms Sameera Belal (Kuwait) and Ms Amel Khiar (Algérie Télécom, Algeria)) can be found in **Annex 5** to this liaison statement (also available in Documents [SG1RGQ/390](https://www.itu.int/md/D18-SG01.RGQ-C-0390) and [SG2RGQ/256](https://www.itu.int/md/D18-SG02.RGQ-C-0256)).

1. **Future activities**

Discussions on these four topics will continue in each ITU-D SG and through coordination between the two ITU-D SGs.

Decisions based on further updates to these proposals will be made during the last annual meeting of ITU-D SG1 and SG2 of the 2018-2021 study period, planned in March 2021 (ITU-D SG1: 22-26 March 2021, and ITU-D SG2: 15-19 March 2021).

1. **Proposal**

TDAG-WG-RDTP is kindly invited to consider these preliminary views of the ITU-D Study Groups 1 and 2 as part of its ongoing work.

**Annexes**

**Annex 1: Preliminary views on WTDC Resolution 1 (Rev. Buenos Aires, 2017), “Rules of procedure of the ITU Telecommunication Development Sector”**

Coordinators:

* ITU-D SG1: Mr Arseny Plossky, Rapporteur for Question 4/1, Russian Federation
* ITU-D SG2: Ms Alina Modan, Vice-Chairman, ITU-D Study Group 2, Romania

***Inactive Management Team Members***

1. Involvement of vice-chairmen to the work of SGs like we have now as coordinators. Vice-Chairmen may be designated by the Chairs of SGs as coordinators on specific topics or focal points for the follow-up of other programmes and other sectors. The roles should be defined at the beginning of the study period not at the very end.
2. To be eligible, a candidate for the position of rapporteur must be active [and have run at least once as vice-rapporteur]. He/she must also have a solid knowledge of the Question submitted. Exceptionally, for Questions that cover difficult topics and address several issues, the study groups may appoint two co-rapporteurs.
3. Appointments of vice-rapporteurs could include the assignment of specific goals for each of them, the responsibility to attend meetings and submit outputs of their work before the administration appoints the delegate so that the administration is clear on the expected effort of the delegate. In that case, maybe this should be explained at WTDC in order to prepare the ITU-D Membership on the process of nominations before the first meetings of the study groups.
4. The number of vice-rapporteurs should be limited, the mechanism of suppression of non-active vice-rapporteurs and vice-chairmen, and appointment of active collaborators as new vice-rapporteurs and vice-chairmen should be defined. *(for example, 2-3 meetings without participation and/or notification of Rapporteur/Chairman could lead to automatic exclusion from the list).* If a vice-rapporteur/vice-chairman is targeted for automatic exclusion, BDT will notify the relevant administration. Manual change of Questions management team members defined at the first meeting of SG in new study period including Rapporteurs, Co-Rapporteurs and Vice-Rapporteurs should be done only in exceptional cases. Rapporteur group management teams should be more involved in the work of BDT events, like Q4/1 which usually participates in Regional Economic Dialogues. This measure will allow us to promote SGs work and to attract new experts from regions.

***[Annual Deliverables] [Guidelines]***

1. Annual deliverables should be defined in Resolution 1, if we need this type of document. Just to avoid creating a new type of document, future outputs could be counted as Guidelines (common type of document dedicated to a particular topic in the scope of the Question). [Annual deliverables/Guidelines] should be non-mandatory for each Rapporteur group. These documents, if any, should be published on the ITU-D study group website under the auspices of the Chairmen of Study Groups 1 and 2 respectively, under a new section to be added titled “Ongoing Work.” These documents will provide ITU membership with timely information, to inform the public of the ongoing work, and to stimulate and encourage further contributions on these topics.

***Work on Output Reports***

1. Work on Output Reports (Final Reports) could be done as in ITU-R and ITU-T. We could revise old Reports if we will have new materials on their related topics and concentrate the Reports for new study period only on new topics. For example, in the Report of 2018-2021, Question 4/1 had 4 major topics (1. New charging methods; 2. Infrastructure sharing; 3. Consumer price evolution; and 4. MVNO). If we will receive some proposals to revise this Report with new materials, we will do it, because it is usual practice. But the Report of 2022-2025 will include materials only on new topics like the ones we preliminary proposed as ICT Value Chain, Digital financial inclusion, Economic incentives for bridging the digital divide, Economic aspects/implications of digital transformation, etc. This measure allows us to not reproduce the same Reports again and again especially in case of hard page limit. Consequently, WTDC Resolution 2 should be revised as well to provide the information on new Questions/topics as well as the old ones from the 2017-2021 study period.
2. The study groups should appoint editors, within the allowed budgetary limits, with a mandate to improve the form of texts resulting from study group deliberations, such as Reports, without altering their meaning or substance, and to align the texts in the official languages of the Union, with a view to their submission to the Plenary for approval.

***Fully virtual, hybrid and physical meetings***

1. We should define general procedure of work of SGs. Currently we have 2x2 weeks of RGs and 2x1 weeks of SGs. RG itself has not many opportunities related to output documents and the decision. Maybe we could think about making 2 weeks for each of SG and 1 week for meetings of RG. In the case of COVID-19, RG could be conducted virtually and SGs could be physical preferably or at least hybrid (virtual meetings showed a lot of issues when it comes for controversial items). Due to issues related to global pandemic like COVID-19, the decision-making meetings of the study groups should be held physically. Those that do not involve decision-making can be held virtually.
2. In case the virtual format would be kept, meetings should be conducted with the usual times for physical meetings (typically 9:00 – 17:00 Geneva time). Since such meeting times could be too long and could affect the concentration and availability to follow by participants from different time zones, an alternative would be to expand the number of meeting days if the current meeting times for virtual meetings (13:00 – 16:00 Geneva time) will continue to be used.

**Annex 2: Preliminary views on the future of ITU-D Study Group 1 Questions**

Coordinator: Mr Roberto Hirayama, Vice-Chairman, ITU-D Study Group 1, Brazil

**Background and Reporting**

During the last ITU-D Study Group 1 (ITU-D SG1) meeting held in February 2020, the management team of SG1 briefly discussed the future of Questions, as the next World Telecommunications Development Conference (WTDC) approaches.

In this opportunity, a Vice-Chairman of ITU-D SG1 was appointed to consolidate the views on the future of the Questions. Mr. Roberto Hirayama took this responsibility.

Each of the Questions freely discussed their views during the last ITU-D SG1 Plenary and Rapporteur Group meetings, and/or in their respective Management Teams.. Mr Hirayama asked each of the Questions to assess the following:

* Should the Question continue?
* If yes, Should the scope by revised? In which way? Point out the topics of interest to the Question in the next study period.
* Are there overlaps with other ITU-D Questions that are worth mentioning, so that we can have a clearer scope in the next study period.
* Any other thoughts related to the future of the Question.

Mr Hirayama received input from the Questions and consolidated the information, and reports back with the consolidated views as follows:

**Question 1/1: Strategies and policies for the deployment of broadband in developing countries**

**Should the Question continue? If yes, Should the scope by revised? In which way? Point out the topics of interest to the Question in the next study period.**

Yes, the Question has to continue for the next study period, and the topics of interest to be reflected in the next study period;

* Policies, strategies and regulatory aspects of broadband
* Broadband access technologies
* Financing and investment aspects of broadband
* COVID-19 and other pandemics on broadband networks
* Digital transformation/infrastructure
* Co-deployment & sharing broadband infrastructure with other infrastructural networks

**Are there overlaps with other ITU-D Questions that are worth mentioning, so that we can have a clearer scope in the next study period.**

* Question 5/1 telecommunication/ICTs for Rural & remote areas has a number of areas of overlap.
* Questions 4/1 & 1/2 have also some overlapped areas with Question 1/1

**Any other thoughts related to the future of the Question.**

Two possible suggestions:

1. Siloed approach:

* Address the future of the Questions by going through each Question individually.
* Would not be efficient from a broader perspective.
* Mandate of Questions could be scale-up/down without having a larger target and goal.

2. Holistic approach;

* Address the future of the Questions by having a wide vision and objective
* The vision and objective could span across Study Group 1 Questions or both Study Groups 1 and 2.
* Question 1/1 could be part of a wider vision and objective for Study Group 1. For example, SG1 could be focusing on Digital Transformation enablers; Broadband access, Big Data & BI, Artificial Intelligence, Automation, Cloud, IoT, Analytics, digital platforms and content, digital CRM (Customer Relationship Management).
* A holistic approach could focus also on business opportunities from digital transformation.
* Intra-sectoral collaboration is meaningful and has better outcomes and results.
* By doing this, some parts of Q1/1, for example SDN, NFV, could be moved to an automation and cloud Question.
* Under this approach, and for being able to make proposals in that sense, other Questions view on their future, are necessary to be defined at first.

**Question 2/1: Strategies, policies, regulations and methods of migration and adoption of digital broadcasting and implementation of new services**

**Should the Question continue? If yes, Should the scope by revised? In which way? Point out the topics of interest to the Question in the next study period.**

The Rapporteur Group Team for Question 2/1 is of the understanding that the Question should continue with a re-focus of its mandate, taking broadcasting in a more general manner and considering the relationship among the various networks which deliver audiovisual content.

As stated in the Question’s annual deliverable for 2020 (available at: <https://www.itu.int/en/ITU-D/Study-Groups/2018-2021/Pages/OngoingWork.aspx>), the broadcasting arena is changing and the offers to users are evolving. New experiences in accessing audiovisual content are being provided and one of the consequences of these new offers is that users no longer have only the traditional media services/applications. They are instead starting to experience different ways of watching audiovisual content in their broadcasting services.

Therefore, to implement new broadcasting technologies, services and applications in this new environment, which seems to be heading to a global media strategy for service providers and not restricting the service offers to the traditional broadcasting market, it seems that consolidation, co-investment and infrastructure sharing are key trends to reduce costs and allow for massive investments in network deployment and content delivery.

Bearing that in mind, it would be beneficial to study broadcasting as a key infrastructure to deliver innovative applications and services when combined with other networks and service platforms. Additionally, these interactions are important to be considered in the regulatory, economic and technical points of view, to leverage the strengths of each network to the benefit of the users and to a more diverse availability of services.

Said that, see below some topics of interest for a future revision of Question 2/1:

* Methods and issues for the transition from traditional digital broadcasting (sound and television) to video-centric converged service providers, including the deployment of new services and applications for consumers/viewers in various environments.
* Strategies on the introduction of new broadcasting technologies, emerging services and capabilities, including regulatory, economic and technical aspects, reflecting the need of massive investments to cope with the ever-growing demand of video content.
* Best practices on spectrum planning activities related the implementation of these video-centric converged service providers.
* Costs of the transition from traditional digital broadcasting (sound and television) to video-centric converged service providers, for the various players: broadcasters, operators, technology providers, manufacturers and distributors of receivers, and consumers, among others.
* The availability and use of the digital-dividend frequency bands resulting from the transition to digital broadcasting (television and audio), including technical, regulatory and economic aspects.

**Are there overlaps with other ITU-D Questions that are worth mentioning, so that we can have a clearer scope in the next study period?**

Collaboration with other Questions that investigate the other networks and service platforms which can be combined to implement the new experience in content delivery that is being referred above, for example, Questions 1/1, 3/1 and 4/1. However, the Rapporteur Group Team of Question 2/1 does not see an overlap with the mandate of those Questions.

**Any other thoughts related to the future of the question?**

It still seems that the digital dividend availability and effective usage, for example, to bridge the digital divide and to provide new innovative broadcasting applications and services, is a priority that needs to be addressed by the Question. Alongside with that traditional broadcasting services, with or without the interaction with other platforms and networks, should also be considered.

**Question 3/1: Emerging technologies, including cloud computing: m-services, and OTTs: Challenges and opportunities, economic and policy impact for developing countries**

**Thoughts related to the future of the Question:**

Question 3/1 on Cloud, OTT and m-services is complex as it was designed from the outset for this study period as 3 separate Questions. In fact, the scope of each topic was separate. Furthermore, while the OTT part received a lot of attention, the other components of the Question did not, as expected, and, in some cases, the borders between OTTs and m-services were not always clear, because OTTs are mostly delivered as m-services.

That said, as I look at the future, the combination of m-Services and the Cloud create a solid foundation for the digital transformation that the world is experiencing, though not everywhere and not at the same speed. With the addition of IoTs (Internet of Things, or smart connected Objects), we have a better and more complete view of where the world will be going in terms of services, m-services and IoTs are the front-end that consumers are enjoying and the Cloud with its various forms and business models provides the backbone and the horsepower that creates intelligence and empowers these services. Also, what Covid-19 has shown us all together, is that in most countries, m-services and the Cloud have enabled most business continuity and even spurred innovation in time of crisis.

**Items of study:**

If Question 3/1 was to continue in a future study period, I believe it should with this view in mind and it should in the case focus on the following:

* How do we unleash this vision;
* Develop complete scenarios and use cases across many sectors that help governments and regulators understand the power of this vision and put into context;
* Highlight the regulatory and policy blockers that need to be addressed to help develop this vision;
* Develop a set of business and investment scenarios that help deploy this vision;
* Provide relevant case studies.

**Question 4/1: Economic policies and methods of determining the costs of services related to national telecommunication/ICT networks**

***Framework:***

1. Proposal of new title for Question 4/1: Economic aspects of national telecommunications/ICTs.
2. Question 4/1 should be the place for coordinating and collecting all discussions on economic aspects of national telecommunications/ICT.
3. Question 4/1 will collaborate with other ITU-D Questions on topics of mutual interest.
4. Question 4/1 will continue to coordinate the efforts on economic issues with ITU-T SG 3 and ITU-R SG 1 and on OTT/digital platforms with ITU-D Q3/1. If some materials related to economic aspects of international/regional telecommunication/ICT and of global spectrum management will be received by Question 4/1, they will be sent to the appropriate groups with the expectation of receiving comments and materials on economic aspects of national telecommunication/ICT, if any.
5. Question 4/1 will collaborate on using and developing relevant economic statistics and indicators in collaboration with the different ITU areas and departments, in the field of telecommunications/ICT.

***Principles:***

* Review and update of the 2018-2021 Question 4/1 Report on the common topics persisting through the mandates of Question 4/1 set at WTDC-14,17,21.
* Include new contributions on the common topics in the revised 2018-2021 Question 4/1 Report.
* Draft the new 2021-2024 Report that will only include new topics approved by the WTDC-21.
* Focus on all economic aspects of national telecommunications/ICT markets from the point of view of all stakeholders involved in the digital ecosystem (countries, regulators, existing ICT infrastructure and connectivity providers, services and content providers, new entrants, consumers).

***Current topics in Study period 2018-2021 (We could revise the Q4/1 Report 2018-2021 on these topics if any new contribution will be received):***

1. New charging methods (or models, if applicable) for services provided over NGN networks
	1. Methods for determining the costs of wholesale/advanced services
	2. Significant Market Power (SMP) – national aspects
	3. Different models for planning NGN networks
2. Different models for infrastructure sharing, including through commercially negotiated terms
	1. Different types/models for infrastructure sharing (passive, active)
	2. Regulatory frameworks for infrastructure sharing
	3. Commercial terms and conditions for infrastructure sharing
	4. Infrastructure sharing consideration related to transition for 5G
	5. Spectrum sharing framework within infrastructure sharing
	6. The impact of infrastructure sharing
3. Consumer price evolution and impact on ICT service usage, innovation, investment and operator revenues
	1. The impact of infrastructure and spectrum sharing on prices to consumers
	2. Impact of bundled telecommunication/ICT services on Average Revenue Per User (ARPU) (“Zero rating”)
	3. ICT price baskets
	4. New business models for provisioning of accessible and affordable ICT services to achieve Sustainable Development Goals (SDGs) and WSIS Action Lines (WSIS-AL)
	5. Methods to encourage adoption and use of advanced ICT services
	6. Trends in prices of telecommunication/ICT services
4. Trends in the development of mobile virtual network operators (MVNO) and their regulatory framework
	1. Models of Mobile Virtual Network Operators
	2. Regulatory framework in the field of MVNO
	3. Commercial agreements in the field MVNO
	4. Impacts of MVNO on market competition

***New topics (We could concentrate the Q4/1 at next study period on these):***

1. Economic impact of ICTs on all stakeholders forming the broad ICT Value Chain.
2. Economic impact of OTTs on the rest of the broad ICT Value Chain and the national economies.
3. Focus on how new types and modes of investment in ICT, e.g. impact, blended investment and crowdfunding, can help achieving SDGs.
4. The design of tariffs in the context of the broad ICT Value Chain (e.g.: bundling, zero rating).
5. Economic aspects/implications of digital transformation (IoT, AI, Machine Learning, 5G and beyond, etc.).
6. Estimation of the value of digital technologies in other sectors of the economy (education, agriculture, health, etc.).
7. Taxation approaches in emerging national telecommunications/ICT markets.
8. New business models: e.g. real economic value of usage of personal data.
9. Economic incentives for bridging the digital divide.
10. National economic aspects of Digital financial inclusion (tbc).
11. New economic aspects affected by national telecommunication/ICT market environment (tbc).
12. Economic regulatory aspects of national telecommunications/ICT.

**Question 5/1: Telecommunications/ICTs for rural and remote areas**

**Should the Question continue?**

Q5/1 is an important Question that needs to be continuously updated and evolved to take into account:

* The changing pace of new technology, new situations as well as checking if past situations and technologies in rural areas have been covered and needs to be further improved.
* New policies to promote and fully implement Broadband roll out in rural and remote areas
* The need to come up with solutions and guidelines on how Rural and remote areas can be capacitated to deal with pandemics such as COVID-19
* The fact that Case studies need to be not just collected but needs to be continuously "accumulated" and "categorized" to provide relevance to countries to take into account when planning for rural communications.
* Possible review and recommendations on the role of Universal service funds and diversification of source of USF funds.
* The role of innovation in rural ICT and other rural business start-ups for developing applications and services for use in rural and remote areas

In the next study period, the details of the current study period as well as previous study periods should be well analysed to show an overall trend to each study period.

**If yes, Should the scope by revised? In which way? Point out the topics of interest to the Question in the next study period.**

**Are there overlaps with other ITU-D Questions that are worth mentioning, so that we can have a clearer scope in the next study period?**

* There certainly are overlaps with Q1/1, 3/1 for example but not worth mentioning as Q5/1 focuses on rural settings and such overlapping contributions are addressed at the study group meetings. Most of the overlaps are complementally rather than duplicating
* The scope should be expanded to explore the importance and need for high quality, high speed Broadband connectivity for rural people and how their needs for e-learning, e-health (remote diagnosis and treatment.
* It can also be expanded to explore the role of local Government Authorities in ICT Development in Rural and remote areas

**Any other thoughts related to the future of the Question?**

* There is need for continuity from the current study period to the next study period, so that each study period is not silo.
* An overview of all the study periods in the past to compare with current and future study periods would be beneficial. It would act as the history of Q5/1 and provide guidance on for the next study period. For example, what key words were most used in study periods and what main technologies were used for each study period. The accumulated information can be attached to the final Report of each study period publication
* It would be good to have opportunities to ask for specific contributions from targeted specific countries where something peculiar is known to happen.

A Preliminary view of the management team of Question 5/1 on the terms of reference of the future Questions can be found in the Annex of this contribution.

**Question 6/1: Consumer information, protection and rights: Laws, regulation, economic bases, consumer networks**

**Should the Question continue?**

Yes, it should. This Question pertains to consumer protection, which remains a relevant subject given that firstly, telecom is a dynamic sector and technology and business models keep changing, and secondly, member states are at various stages of telecom penetration and adoption of new technologies and regulatory evolution. As the world moves towards Industry 4.0, nations must prepare for fifth generation regulation and consumer protection is a big part of regulation of digital communications. Further, the present pandemic and widespread use of digital communications, including personal especially location data of telecom subscribers underlines the need for sharing of best practices so as to harness the benefits of technology while protecting the interests of consumers.

**If yes, should the scope by revised? In which way? Point out the topics of interest to the Question in the next study period.**

The scope it at present quite comprehensive. It could be improved by adding:

* focus on consumer education and awareness measures.
* How rural and remote communities can be capacitated technologically to cope during periods of Pandemics such as COVID-19?
* This Question is intricately linked to competitive service provision, protecting innovations and protection of data on telecom networks. These should be explicitly acknowledged as part of the Question.
* Responsible use of new technologies such as IoTs, drones, robotics etc.
* Fostering Consumer trust in new technologies while protecting innovation through self-regulation and co-regulation.

**Are there overlaps with other ITU-D Questions that are worth mentioning, so that we can have a clearer scope in the next study period?**

No there are no significant overlaps as this Question approaches issues from the prism of protecting consumers

**Any other thoughts related to the future of the Question.**

No further views.

**Question 7/1: Access to telecommunication/ICT services by persons with disabilities and other persons with specific needs**

As the digital revolution intensifies and grows, while considering the global impact of information-communications technologies (ICT) across all sectors of activities, the governments, non-profits, and businesses are urged to ensure that information, products and services are accessible to all people regardless of their gender, age, ability, location or financial means.

Considering that half of the world’s population is not yet using the Internet, technological change, including the impact of Artificial Intelligence or creating smart cities and society, may create new divisions. Therefore, timely implementation of right enabling environments (i.e., developing policies, strategies, regulatory frameworks, etc.) is key to ensuring that the contribution of ICTs to sustainable development is positive and leaves no one behind.

COVID-19 pandemic has reiterated a need to have ICT accessibility topic re-positioned by the ITU Member States, and have it incorporated in governments’ political priorities and agendas to ensure that information, products, and services are available, affordable and accessible. Timely implementation of ICT accessibility could be vital for all, including persons with disabilities. Therefore, to meet the **ITU Strategic Goal no. 2 “Inclusiveness” and its target 2.9: “**By 2023, enabling environments ensuring accessible telecommunications/ICTs for persons with disabilities should be established in all countries,” activities towards the implementation of ICT accessibility should be intensified and accelerated.

During the COVID-19 crisis, in many countries, the disadvantaged end-users have experienced the harsh consequences caused by a lack of implementation of international conventions, national legal and regulatory frameworks, and availability of accessible products and services.

The above mentioned supports the need to ensure the continuation of SG1Q7 in the next study period.

Furthermore, based on the needs of ITU members, following draft topics/priorities are identified and proposed to be considered in the next study period:

* Leverage digital accessibility as a priority at country and regional level (in particular to ensure that that all citizens including those with disabilities can access and benefit from e-government and other public digital information products and services);
* Develop national programmes and strategies in place to ensure that education and training for persons with disabilities and other persons with specific needs in the use of telecommunications/ICTs are considered at the country level;
* Develop digital accessibility resources including education and training to increase expertise at a national, regional and global level in the topic and facilitate the appropriate implementation of policies and strategies to ensure telecommunication/ICT use by persons with disabilities including in their access to education and for employment opportunities;
* Encourage the creation of innovative accessible digital solutions and ICT applications for persons with disabilities to facilitate their independent life.

**ANNEX PRELIMINARY TERMS OF REFERENCE OF ITU-D QUESTIONS**

**STUDY GROUP 1**

Future of Question 5/1

**Telecommunications/information and communication technologies for digital transformation in rural and remote areas**

1. **Statement of the situation or problem**

In order to continue to contribute to promote attainment of the UN Sustainable Development Goals (SDGs) defined in September 2015 and objectives set by the Geneva Plan of Action of the World Summit on the Information Society (WSIS) in the era of digital transformation, it is necessary to address the challenges that are still faced by rural and remote communities in relation to digital infrastructure development and access to broadband services including e-education, e-health, e-government, e-agriculture, e-commerce, and other e services..). This work should give more attention to the rural and remote areas of developing countries including LDCs, LLDCs and SIDSs, where more than 50% of the population live and they need broadband connectivity.

The installation of cost-effective and sustainable digital infrastructure by deploying emerging technologies such as broadband LEO satellites, next generation high-speed mobile and fixed broadband wire and wireless transmission systems suited for rural and remote areas is an important aspect calling for further studies, and specific outcomes need to be available for the vendor community to make available broadband internet connectivity for up-to-date e-services for quality life of inhabitants in rural and remote areas.

Existing network systems are primarily designed for urban areas, where the necessary support infrastructure (adequate power, building/shelter, accessibility, skilled manpower to operate, etc.) for setting up a broadband telecommunication network is assumed to exist. Hence, current and future systems need to be more adequately adapted to specific rural requirements in order to be widely deployed.

Shortage of power, difficult terrain, lack of skilled manpower, access motor road and transportation, and difficulty of installation and maintenance of networks are some of the known challenges that developing countries planning to extend infrastructure to rural and isolated land locked areas and remote islands must tackle.

More detailed studies addressing the challenges of deploying cost-effective and sustainable broadband ICT infrastructure in rural and remote areas are expected to be undertaken within the study groups of the ITU Telecommunication Development Sector (ITU-D), taking into account the global perspective in the era of digital transformation and social innovation.

Therefore, the WSIS target, "Connect villages with telecommunications/ICTs and establish community access points", should be promoted more intensively taking into account the sharing economy, by employing emerging digital broadband technologies for various e-application services to stimulate social and economic activities for inhabitants’ quality life in rural and remote areas. Multipurpose community telecentres (MCT), public call offices (PCO), community access centers (CAC) and e-posts are still valid in terms of cost effectiveness for sharing of infrastructure and facilities by community residents, leading to the goal of provision of individual telecommunication access.

It is also important to consider broadband demand creation and affordability programs for the adoption of broadband and e-services by the people in rural and remote areas. They need affordable broadband and devices for access to the internet. Government incentives, subsidies and other financing mechanisms are necessary. Work on the effective use of Universal Service Funds and best practices is also crucial.

1. **Question or issue for study**

There are still many challenges to spreading broadband digital infrastructure by satellite, next generation high-speed mobile, fixed broadband wired and wireless systems in rural and remote areas. Throughout the studies conducted in the past study periods, it has been clear from the experience of many countries that technologies and strategies for rural and remote areas are various and diversified from country to country. Also, the social, economic and technological situation in rural and remote areas is moving forward to new economy rapidly. Therefore, it is important to update the study of broadband digital connectivity for rural and remote areas and to adapt to the social innovation for rural inhabitants of developing countries including LDCs, LLDCs and SIDSs, in respect of the following items:

* Techniques and sustainable solutions that can impact on the provision of broadband digital infrastructure in rural and remote areas, with emphasis on those that employ the up-to-date technologies designed to lower infrastructure capital and operating costs, assist convergence between services and applications, and take into consideration the need to reduce greenhouse gas (GHG) emissions.
	+ Difficulties in creating or building broadband digital infrastructure in rural and remote areas.
	+ Difficulties facing broadband satellite, next generation mobile networks and fixed digital transmission systems for rural deployment in developing countries, and the requirements to be satisfied by such systems.
	+ Needs and policies, mechanisms and regulatory initiatives to reduce the digital divide by increasing broadband digital access.
	+ Quality of the services provided, and the cost effectiveness, degree of sustainability in different geographies and sustainability of the techniques and solutions.
	+ Business models for sustainable deployment of networks and services in rural and remote areas, taking into consideration priorities based on economic and social indicators.
	+ Broadband demand creation and affordability programs (including government incentives, subsidies) for the adoption of broadband, e-services and devices in rural and remote areas.
* Financing mechanisms including Universal Service Funds.
* Integration and implementation of new ICT technologies/services in rural and remote areas (especially in education, health and agriculture).
	+ Increasing availability of telecommunications/ICTs that provide enhanced digital connectivity at progressively lower costs, lower energy consumption and lower levels of GHG emissions.
	+ Experience gained in previous ITU-D study cycles in many parts of the developing world in implementing and refining major rural telecommunication programs, as more countries respond to particular situations and domestic demand using best practices as outlined in the work of ITU-D.
	+ The influence of cultural, social and other factors in producing differing and often creative responses to meeting the demand for e-services from residents of rural and remote areas of developing countries including Least Developing Countries (LDCs), land locked developing countries (LLDCs) and Small Island Developing States (SIDSs).
	+ The steady progress being made on human resources development/management issues, which are fundamental to establishing sustainable digital telecommunication infrastructure.
* Appropriate capacity building programmes that can assist with digital literacy and training of professional staff to enhance access by People in rural and remote communities
	+ Identifying the rapid change of technologies which could be utilized in rural and remote areas should be taken into account.
	+ Opportunities for and challenges to access to services in locally relevant languages and for the people with specific needs.
	+ Description of evolving system requirements for rural network systems specifically addressing the identified challenges of rural deployment.

**Analysis of case studies**

During the study carried out on each of these items, the following matters should also be studied and reflected in the outputs of the Question:

* + Environmental sustainability in deploying the infrastructure and necessary robustness of digital infrastructure;
	+ Maintenance and operational aspects to provide a quality and continuous service;
	+ Demand-side factors and practices to generate and increase the usage of affordable ICT/IoT devices and services;
	+ Strategies on the integration of ICT in Education in rural areas.
	+ Efforts to build digital literacy and ICT skill sets for the deployment of digital broadband services;
	+ Relevant localization of content;
	+ Affordability of services/devices for rural users to adopt so as to fulfil their development needs;
	+ Capacity building
	+ Strategies to maintain and encourage the training of technical staff in order to guarantee the reliability of the digital broadband infrastructure;
	+ Strategies to promote small, non-profit community operators.

In addressing the above studies, the work under way in response to other ITU-D Questions, and close coordination with relevant activities under those Questions should be taken into consideration, in particular Questions 1/1, 3/1 and 4/1 and Questions 2/2, 4/2 and 5/2, are highly relevant. Likewise, the studies shall take into account cases related to people with specific needs, indigenous communities, isolated and poorly served areas, LDCs, small island developing states (SIDS) and landlocked developing countries (LLDCs), and highlight their specific needs and other particular situations which need to be considered in developing broadband digital facilities for these areas.

1. **Expected output**

The output will be a report on the results of the work conducted for each item studied, together with a handbook, case study analysis reports, and one or more recommendations and other relevant materials at appropriate times, either during the course of or at the conclusion of the cycle.

Information shall be consolidated and disseminated to the membership to enable them to organize seminars and workshops for sharing best practices on the deployment of digital broadband infrastructure in rural and underserved areas.

1. **Timing**

The output will be generated on an annual basis. The output from the first year will be analyzed and assessed in order to update the work plan for the next year, and so on.

1. **Proposers/sponsors**

The Question was originally approved by WTDC-94, and subsequently revised by WTDC-98, WTDC-02, WTDC-06, WTDC-10, WTDC-14 and WTDC-17.

1. **Sources of input**

Contributions are expected from Member States, Sector Members, Academia and Associates, as well as inputs from relevant Telecommunication Development Bureau (BDT) programs, particularly those that have successfully implemented telecommunication/ICT projects in rural and remote areas. These contributions will enable those responsible for work on this Question to develop the most appropriate conclusions, recommendations and outputs. The intensive use of correspondence and online exchange of information, workshops and field experiences is encouraged for additional sources of inputs.

|  |  |  |
| --- | --- | --- |
| 1. **Target audience Target audience**
 | **Developed countries** | **Developing countries** |
| Relevant policy-makers  | Yes | Yes |
| Telecom regulators  | Yes | Yes |
| Rural authorities  | Yes | Yes |
| Service providers/operators  | Yes | Yes |
| Manufacturers, including software developers  | Yes | Yes |
| Vendors  | Yes | Yes |

* Regional and scientific organizations with mandates covering the subject matter of the Question
* Other relevant stakeholders (see Recommendation ITU-D 20).

As may become apparent within the life of the Question.

1. **BDT program link**

WTDC Resolution 11 (Rev. Buenos Aires, 2017), Resolution 68 (Rev. Dubai, 2014) and Recommendation ITU-D 19.

Links to BDT program aimed at fostering the development of telecommunication/ICT networks as well as relevant applications and services, including bridging the standardization gap.

1. **Other relevant information**

As may become apparent within the life of the Question.

**Annex 3: Preliminary views on the future of ITU-D Study Group 2 Questions**

Coordinator: Mr Abdelaziz Alzarooni, Vice-Chairman, ITU-D Study Group 2, United Arab Emirates

**Background**

As we are approaching WTDC-21, discussions on future topics to be studied started during the previous meetings of the study group (Section 2.2 of Document [TDAG-20/13](https://www.itu.int/md/D18-TDAG25.2-C-0013/en)). And during the extraordinary TDAG meeting on 16 June 2020, it was agreed to create a TDAG working group on WTDC resolutions, declaration and thematic priorities, with terms of reference (Document [TDAG-20/2/DT/3](https://www.itu.int/md/D18-TDAG26-200616-TD-0003/en)) that include "*To align the ITU-D thematic priorities, proposed regional initiatives and proposed study group Questions, taking into account proposals of ITU-D Study Groups, outcomes of the Regional Preparatory Meetings for WTDC-21, relating to the 2030 Sustainable Development Goals and taking into consideration the WSIS Action Lines for which ITU has lead responsibility;*".

In that capacity, a Vice-Chairman of ITU-D SG2 was appointed to coordinate and consolidate views on future SG2 Question proposals. The Vice-Chairman coordinated with the rapporteurs of ITU-D SG2 to get their views. Five questions were provided to assist rapporteurs in their inputs, that included:

1. Do you think the Question should continue for the next study cycle?
2. If yes, how can the scope of the Question be updated to include upcoming, new, and trending technologies in the field?
3. Is there any other update that could be done to the mandate and scope of work for the Question?
4. Do you see an overlap between this Question and others within ITU-D SG2 & SG1? If yes, how can that be improved to create areas of focus and avoid duplication?
5. Any other suggestions on ways to improve the Questions, or on topics that could be introduced, merged, or removed?

The following are the views from Questions 1/2, 2/2, 3/2, 4/2, 5/2, 6/2, and 7/2. Further discussions will be done to get the inputs from the Questions in the upcoming meetings to enrich the report and provide updated views accordingly.

**Views on the future of Questions**

**Question 1/2: Creating smart cities and society: Employing information and communication technologies for sustainable social and economic development**

**Do you think the Question should continue for the next study cycle?**

Yes. The economies worldwide are geared towards digital world as have been proven by the COVID-19 pandemic where adoption of innovative solutions to mitigate against it was key.

**If yes, how can the scope of the Question be updated to include upcoming, new, and trending technologies in the field?**

Smart cities and communities are a rising and continuing approach that interact well with our personal and business activities. In this regard, the technical scope could be updated to include:

* New generations and solutions for infrastructure connectivity which is the base foundation for building smart systems and applications over
* The development in sensors and IoT devices that will be spread across the whole city or community
* Identifying the key technical indicators for tracking progress in smart cities and communities

**Is there any other update that could be done to the mandate and scope of work for the Question?**

* Inclusion of communities as well as cities (communities could be a business park, a village, …etc.)
* Encouraging private sectors, manufacturers, and city planners to participate in the Question activities to keep up with new technology trends and to augment different perspectives and views as well
* Encouraging partners/members to share business model case studies
* Policy recommendations

**Do you see an overlap between this Question and others within ITU-D SG2 & SG1? If yes, how can that be improved to create areas of focus and avoid duplication?**

No overlapping but rather collaboration is needed with other Questions since this Question addresses developing a whole city or community

**Any other suggestions on ways to improve the Questions, or on topics that could be introduced, merged, or removed?**

* Broad cooperation with other UN agencies in the relevant fields for creating a smart city or community
* Connection between Question and other development projects carried out by ITU

**Question 2/2: Telecommunications/ICTs for eHealth**

The management of Q2/2 has prepared a contribution stating its proposal for the future of Q2/2 that will be presented during the next Rapporteur meeting of Q2/2. As stated in the document, the management team believes it is important to continue studying the topic of Telecommunications/ICTs for eHealth, taking into consideration the recent social situation and technological trends and developments.

More details could be found in Document [SG2RGQ/255](http://www.itu.int/md/D18-SG02.RGQ-C-0255/).

**Question 3/2: Securing information and communication networks: Best practices for developing a culture of cybersecurity**

**Do you think the Question should continue for the next study cycle?**

Yes, cybersecurity is an important issue for all stakeholders, governments, consumers, and work within ITU-D certainly helps in raising awareness about the various stakes.

**If yes, how can the scope of the Question be updated to include upcoming, new, and trending technologies in the field?**

By nature, security issues concern all technologies, including new and emerging ones, and are by nature integrated in their design. The scope of the Question is broad enough and generic and therefore could be kept unchanged.

**Is there any other update that could be done to the mandate and scope of work for the Question?**

The mandate could be kept with no change. Regarding the detail of the work, reference to spam and to accessibility could be questioned, as very few contributions have been received for these issues.

**Do you see an overlap between this Question and others within ITU-D SG2 & SG1? If yes, how can that be improved to create areas of focus and avoid duplication?**

Some overlaps were identified with Q1/2 (IOT) and could be resolved by an intensive and fruitful cooperation between the two Questions. As for the Standardization sector, one easy way to improve such situation and avoid possible difficulties is to define Q3/2 as the lead Question for all security issues within ITU-D study groups, considering the transversal character of the issue.

**Any other suggestions on ways to improve the Questions, or on topics that could be introduced, merged, or removed?**

Not at this stage.

**Question 4/2: Assistance to developing countries for implementing conformance and interoperability (C&I) programmes and combating counterfeit ICT equipment and theft of mobile devices**

**Do you think the Question should continue for the next study cycle?**

Yes. If C&I is required in a hyperconnected world with billions of people and things connecting among them, so the continuation of the Question is desired.

**If yes, how can the scope of the Question be updated to include upcoming, new, and trending technologies in the field?**

* Investigate the coming challenges for C&I (fast-paced new technologies coming ahead of regulation/testing procedures, smart things able to communicate through ICTs; software can be changed/hacked; effective harmonization of procedures and technical collaboration etc.)
* Study on how to prioritize devices/type approval models to achieve a good balance between trust and control
* C&I challenges and opportunities during COVID-19
* How new technologies (such as blockchain, AI) can help to improve trust on international C&I framework and ICT devices trade and use.

**Is there any other update that could be done to the mandate and scope of work for the Question?**

* In addition to the existing tasks, some improvements for the future work are offered as follows:
* How can we manage the increasing numbers of devices sharing the same limited resources?
* How can the costs of access to market be covered, so controls are in place to allow only approved products?
* Harmonization of procedures and collaboration.
* Robust C&I Frameworks: Making sure every country can have or be part of a robust C&I framework in place with minimum costs (e.g. agreements, national testing facilities for C&I)
* Collaboration: Are Mutual Recognition Agreements MRA arrangements an effective tool we need to pursue in the future? What features of an MRA do we need to improve to make existing MRA better or to have new MRA collaboration agreements? The group to focus on innovative collaboration structures to get the better access to high quality and safe ICT products

**Do you see an overlap between this Question and others within ITU-D SG2 & SG1? If yes, how can that be improved to create areas of focus and avoid duplication?**

There are some overlapped areas with Question 7/2: Strategies and policies concerning human exposure to electromagnetic fields.

**Question 5/2: Utilizing telecommunications/ICTs for disaster risk reduction and management**

**Do you think the Question should continue for the next study cycle?**

The Q5/2 Management proposes the following study Question for the next study cycle “Utilisation of Telecommunications/ICTs for Disaster Response and Recovery” (**Annex** contains an overview and details of the proposal).

**Do you see an overlap between this Question and others within ITU-D SG2 & SG1? If yes, how can that be improved to create areas of focus and avoid duplication?**

As such there is no overlap. However, there will be linkages like present study Question. By exchanging liaison statements, the possibility can be avoided.

**Question 6/2: ICTs and the environment**

**Do you think the Question should continue for the next study cycle?**

Yes.

**If yes, how can the scope of the Question be updated to include upcoming, new, and trending technologies in the field?**

Along with e-waste management, climate change mitigation, we can also include role of ICTs in preventing natural catastrophes in human settlements, like recent increase in incidents of wildfires, floods etc.

**Is there any other update that could be done to the mandate and scope of work for the Question?**

Encouraging regional workshops.

**Do you see an overlap between this Question and others within ITU-D SG2 & SG1? If yes, how can that be improved to create areas of focus and avoid duplication?**

No, there is no overlap.

**Any other suggestions on ways to improve the Questions, or on topics that could be introduced, merged, or removed?**

“ICTs and environment” is a very pressing topic, climate change is the grim reality world is facing, the Question should function independently.

**Question 7/2: Strategies and policies concerning human exposure to electromagnetic fields**

**Do you think the Question should continue for the next study cycle?**

Yes.

**If yes, how can the scope of the Question be updated to include upcoming, new, and trending technologies in the field?**

* Challenges of 5G implementation.
* Exposure by 5G and AIOT technologies

**Is there any other update that could be done to the mandate and scope of work for the Question?**

* Societal concerns
* EMF risks to animals and plants
* Reinforced risk communications by various modern methods (e.g. mass media, website, communication tool...)

**Do you see an overlap between this Question and others within ITU-D SG2 & SG1? If yes, how can that be improved to create areas of focus and avoid duplication?**

No overlap to any other Question.

**Annex - Overview of the Proposed Topic for Future Question 5/2**

**Utilisation of Telecommunications/ ICTs for Disaster response and Recovery**

1. **Statement of the situation or problem**

The importance of telecommunications and ICTs to support disaster mitigation, preparedness, response, and recovery is well established. Over the study cycle from 2018 to 2021, ITU-D Study Group 2 Question 5/2 has examined Use of ICTs in disaster risk reduction with case studies, examples of technologies, applications, checklists, guidelines for exercise and drills, planning aspects etc. Before that during the study period 2010-2017 the focus was on Utilization of telecommunications/ICTs for disaster preparedness, mitigation, and response.

Year 2019-20 has seen significant disaster events in terms of numbers and fatalities. There has been widespread loss of lives and property. As per Emergency event database[[2]](#footnote-2) during the year 2019, total 396 natural disasters were recorded with 11,755 deaths, 95 million people affected and there was a total US$103 billion worth of economic loss across the world. The burden was not equally shared by the world as Asia suffered the highest impact and accounted for 40% of disaster events, 45% of deaths and 74% of the total affected. Floods were the deadliest type of disaster accounting for 43.5% of deaths, followed by extreme temperatures at 25% (mainly due to heat waves in Europe) and storms at 21.5%. Storms affected the highest number of people, accounting for 35% of the total affected, followed by floods with 33% and droughts with 31%. There has been more wildfire were reported in 2019(14) as compared to annual average number of wildfires (9) during 2009-2018. Similarly, a greater number of floods (194) during 2019 as compared to annual average of 149 floods during 2009-2018.

By the end of year 2019 and beginning of the year 2020 the world has been hit by another disaster namely COVID-19 epidemic. It resulted in widespread loss of lives across the world, unemployment, and huge economic loss due to lockdown in various countries. So far more than 1 million people have lost their lives and there seems little hope that loss of lives will reduce in short term till the vaccine against the virus is developed.

With most developed and developing countries have recognized disaster communications as a priority and are taking steps to build national preparedness plans, develop early warning systems, and put technologies and systems in place to have a disaster resilient systems, operational continuity and rapid restoration of networks thus help supporting the disaster communications requirements. Question 5/2 has been able to establish a baseline of information about country experiences, plans, tools, stakeholders, and policies etc for disaster preparedness, mitigation, risk reduction etc. with the guidelines for drills and exercises, policy guidelines, technologies related to disaster communication etc it will be possible for the countries to incorporate these in their National Emergency Telecommunication Plans (NETP) so as to utilise the knowledge gained by exchange of information and best practices amongst the various countries. Based on the past two years’ experience, it is felt that during the next phase of study the focus should be on disaster response and recovery as ICT can help in giving effective response and can help in recovery from the disasters.

In view of the above the next study Question for the year 2022-2025 should be **‘Utilisation of Telecommunications/ ICTs for Disaster response and Recovery’.**

1. **Question or issue for study**

The Question will undertake examination of **‘Utilisation of Telecommunications/ ICTs for Disaster response and Recovery’.** The study theme will encompass workshops featuring subject matter experts, administrations and sector members who can share expertise and experiences related to the theme, collection of case studies and input contributions related to the theme, interactive discussion to allow the Question to compare experiences and identify lessons learned and best practices. Additionally, throughout the study cycle, the Question will continue to examine new technologies, systems and applications for disaster communications and management for Mitigation, Preparedness, risk reduction, response and recovery to ensure developing countries remain aware of the latest technical developments.

1. **Expected output(s)**

It is proposed that succinct outputs summarizing case studies and capturing lessons learned, best practices, and tools/templates will be prepared and presented to the Study Question for approval.

Additionally, throughout the study cycle, Question X/2 welcomes contributions that describe new technologies, systems and applications for disaster communications and management for Mitigation, Preparedness, risk reduction, response and recovery and considerations to support implementation. The focus will be on both technology examples and deployment case studies of new and emerging systems and applications for disaster communications and response.

**Annex 4: Preliminary views on streamlining of WTDC Resolutions**

Coordinator: Mr Arseny Plossky, Rapporteur for Question 4/1, Russian Federation

**Introduction**

These proposals were made to reveal opportunities to reduce the number of WTDC Resolutions by streamlining and using the mechanism of aggregation of provisions of some Resolutions into one base Resolution.

Table 1 contains some preliminary views on possible streamlining of WTDC Resolutions to be used as opinion for ITU-D study groups on relevant topic of the TDAG Working Group on Resolutions, Declaration and Thematic Priorities (TDAG-WG-RDTP).

**Table 1: Preliminary view on possible streamlining of WTDC Resolutions using the mechanism of reducing the number of Resolutions by aggregation of provisions of some Resolutions into one base Resolution**

| **Cluster** | **Base Resolution** | **Suppressing Resolutions**  | **Commentary** |
| --- | --- | --- | --- |
| Rules and procedures | RESOLUTION 1 (Rev. Buenos Aires, 2017) ʹ Rules of procedure of the ITU Telecommunication Development Sector | 1) RESOLUTION 24 (Rev. Dubai 2014) ʹ Authorization for the Telecommunication Development Advisory Group to act between world telecommunication development conferences;2) RESOLUTION 61 (Rev. Dubai, 2014) Appointment and maximum term of office of chairmen and vice-chairmen of study groups in the ITU Telecommunication Development Sector and of the Telecommunication Development Advisory Group;3) RESOLUTION 81 (Rev. Buenos Aires, 2017) ʹ Further development of electronic working methods for the work of the ITU Telecommunication Development Sector | Many of the provisions in Res. 24, 61 and 81 are duplicated in Res. 1 |
| Membership | RESOLUTION 71 (Rev. Buenos Aires, 2017) ʹ Strengthening cooperation between Member States, Sector Members, Associates and Academia of the ITU Telecommunication Development Sector and the evolving role of the private sector in the ITU Telecommunication Development Sector | 1) RESOLUTION 27 (Rev. Hyderabad, 2010) ʹ Admission of entities or organizations to participate as Associates in the work of the ITU Telecommunication Development Sector | Res. 27 is old, not modified during the previous 2 conferences and the main ideas are duplicated in Res. 71 |
| Spectrum management | RESOLUTION 9 (Rev. Buenos Aires, 2017) ʹ Participation of countries, particularly developing countries, in spectrum management | 1) RESOLUTION 10 (Rev. Hyderabad, 2010) ʹ Financial support for national spectrum-management programmes | Res.10 is old, not modified during the previous 2 conferences, and main provisions are closely related to Res. 9 |
| Access to technologies | RESOLUTION 20 (Rev. Buenos Aires, 2017) ʹ Non-discriminatory access to modern telecommunication/ information and communication technology facilities, services and related applications | 1) RESOLUTION 15 (Rev. Buenos Aires, 2017) ʹ Applied research and transfer of technology;2) RESOLUTION 47 (Rev. Buenos Aires, 2017) ʹ Enhancement of knowledge and effective application of ITU Recommendations in developing countries, including conformance and interoperability testing of systems manufactured on the basis of ITU Recommendations | All these Resolutions are related to the access to technologies and infrastructure, which already standardized in ITU-T and ITU-R |
| Internet access | RESOLUTION 23 (Rev. Buenos Aires, 2017) ʹ Internet access and availability for developing countries and charging principles for international Internet connection | 1) RESOLUTION 63 (Rev. Buenos Aires, 2017) ʹ IP address allocation and facilitating the transition to IPv6 deployment in the developing countries | IPv6 transition is closely related to general access to the Internet |
| Security in the use of ICTs | RESOLUTION 45 (Rev. Dubai, 2014) ʹ Mechanisms for enhancing cooperation on cybersecurity, including countering and combating spam | 1) RESOLUTION 69 (Rev. Buenos Aires, 2017) ʹ Facilitating creation of national computer incident response teams, particularly for developing countries, and cooperation between them | CIRT is a part of measures to provide security in the use of ICTs |
| Broadband development | RESOLUTION 77 (Rev. Buenos Aires, 2017) ʹ Broadband technology and applications for greater growth and development of telecommunication/information and communication services and broadband connectivity | RESOLUTION 43 (Rev. Buenos Aires, 2017) ʹ Assistance in implementing International Mobile Telecommunications and future networks | IMT is a huge part of broadband development and connectivity |

**Annex 5: Preliminary views on WTDC Declaration**

Coordinators:

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This contribution contains the initial proposals on the themes of the **WTDC Draft Declaration** to be used as opinion of ITU-D Study Groups 1 and 2 on relevant topic of TDAG Working Group on Resolutions, Declaration and Thematic Priorities (TDAG-WG-RDTP).

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| --- | --- |
| **Theme of WTDC-21** | **Details of the proposal** |
| Digital Transformation for SDGsorDigital Transformation for Development | Digital Economy and Digital Transformation have become the subjects of top priority for the countries since WTDC‑17 and these two subjects directly related to each other. The recent COVID-19 pandemic has unleashed the necessity of fastening the processes of the Digital Transformation and empowering ICT to narrow the Digital Divide to allow people to use the benefits of Digital Economy. Therefore, Digital Transformation should be prioritized to foster digital economy and ensure the access to and use of ICTs to support the development of inclusive digital societies as well as enable that digital information products and services are provided to all people in emerging global situation like the COVID-19 pandemic.Digital Transformation will help all SDGs and it will be also a continuation of the previous theme.Digital Transformation is also very important for COVID-19 (resilient digital broadband infrastructure, economic recovery, remote working, education, health, e-agriculture, e-commerce, etc.). It is also important to note, ITU/UNICEF has a joint program GIGA; Connect Every School to the Internet. We also need to consider prioritizing e-learning (ICT in Education) for the next cycle (it is an important part of Digital Transformation).*With governments around the world now according unprecedented importance to the development of digital networks and services, WTDC-21 represents our best chance in decades to mobilize the global community around* ***the power of digital transformation*** *and reshape the connectivity agenda.**WTDC-21 must be a conduit to build sound partnerships for* ***digital transformation***. |
| / | The WTDC-21 Declaration will take on a very special aspect with COVID-19. Indeed, nothing will be as before, including in the field of ICT. Many lessons have been learned and continue to be learned with the advent of the pandemic and which will sometimes call into question aspects that were thought to be definitively acquired.For the draft declaration, an urgency in some points:* Digital governance and digital transformation
* Generalization and acceleration of IPv6
* Better sharing of resources and data at national and international level
* Mobilize regulators more for the rapid establishment of various facilitating mechanisms
 |
| / | The Declaration addresses the following points:* Bridging the Digital Divide to ensure the availability, accessibility and affordability of connectivity to the unconnected populations and territories;
* Ensuring availability and accessibility of emergency communications, so that when natural disasters hit the affected populations are not left out or isolated from the rest of the world;
* Promoting and encouraging increased interest in the ICT sector to attract more investment/funding for further development and innovations.

The Declaration should be concise, but needs to reflect the current state of the ICT sector and be far-looking at the same time. |
| Digital transformation for sustainable development goals (DT for SDGs) | Main points to be covered in WTDC-21 Declaration:* Digital transformation technologies: High-quality digital infrastructure and broadband, AI, Machine Learning, Big Data, Internet of Things, Analytics, Blockchain, data science, automation, digital platforms and robotics.
* Universally accessible, ubiquitous, secure and affordable telecommunications/ICTs, particularly, in the use of digital transformation technologies and services available to all people regardless of their gender, age, ability, location or financial means.
* Innovation and digital literacy and ICT skills in broadband infrastructure and in the use of digital transformation technologies and enablers.
* Policies and regulatory aspects for enabling digital transformation at national, regional and international level and for enabling and promoting the deployment of broadband infrastructure
* Indicators/statistics related to digital transformation (link to the new ICT Index)
* Capacity building in the development and the use of telecommunications/ICTs
* Trust, confidence and security in the use of Telecommunications/ICTs, particularly, in the use of digital transformation technologies.
* Promotion of investment for the development of broadband and digital transformation across all industry sectors.
* International cooperation and cooperation among ITU’s membership.
* Inclusive digital economy national regional and international level
* Bridging the standardization gap (BSG)
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**Reference from ITU**

* Following ITU WTDC 2021 welcome messages from ITU BDT Director Ms. Doreen Bogdan-Martin, and H.E. Abraham Belay, Minister of Innovation and Technology, Ethiopia also gives a direction us on digital transformation.

<https://www.itu.int/en/ITU-D/conferences/WTDC/WTDC21/Pages/default.aspx>

* Similarly, ITU GSR 2020 and new ITU-World Bank Digital Regulation Handbook also prioritized Digital Transformation and Economy. In fact, the theme of ITU GSR 2020 is on Digital Transformation.
<https://www.itu.int/en/ITU-D/Conferences/GSR/2020/Pages/default.aspx>
* Digital transformation initiative, ITU Digital Word
<https://digital-world.itu.int/>

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1. The “Ongoing Work” webpage can be found in the following link: <https://www.itu.int/en/ITU-D/Study-Groups/2018-2021/Pages/OngoingWork.aspx> [↑](#footnote-ref-1)
2. <https://www.emdat.be> [↑](#footnote-ref-2)