

## **ITU AMERICAS IPEC 2019**

**ITU Regional Economic Dialogue on Telecommunications/ICTs for  
Latin America and the Caribbean (RED) // Diálogo Regional de la UIT  
sobre la Economía de las Telecomunicaciones/TIC  
para América Latina y el Caribe (RED)**

***Santo Domingo, Dominican Republic 26-30 August 2019***

### **ITU-D Question 4/1**

**Economic policies and methods of determining the costs of  
services related to national telecommunication/information and  
communication technology networks, including  
next-generation networks**

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# ITU Constitution

## ITU Constitution Article 1

**h) undertake studies, make regulations, adopt resolutions, formulate recommendations and opinions, and collect and publish information concerning telecommunication matters**

## ITU-D Mandate

- a) raise the level of awareness of decision-makers concerning the important role of telecommunications in the national economic and social development programme, and provide information and advice on possible policy and structural options;**
- b) promote, especially by means of partnership, the development, expansion and operation of telecommunication networks and services, particularly in developing countries, taking into account the activities of other relevant bodies, by reinforcing capabilities for human resources development, planning, management, resource mobilization, and research and development;**
- c) enhance the growth of telecommunications through cooperation with regional telecommunications organizations and with global and regional development financing institutions, monitoring the status of projects included in its development programme to ensure that they are properly executed;**
- d) activate the mobilization of resources to provide assistance in the field of telecommunications to developing countries by promoting the establishment of preferential and favourable lines of credit, and cooperating with international and regional financial and development institutions;**

## ITU-D Mandate (continue)

- e) promote and coordinate programmes to accelerate the transfer of appropriate technologies to the developing countries in the light of changes and developments in the networks of the developed countries;**
- f) encourage participation by industry in telecommunication development in developing countries, and offer advice on the choice and transfer of appropriate technology;**
- g) offer advice, carry out or sponsor studies, as necessary, on technical, economic, financial, managerial, regulatory and policy issues, including studies of specific projects in the field of telecommunications;**
- h) collaborate with the other Sectors, the General Secretariat and other concerned bodies in developing a general plan for international and regional telecommunication networks so as to facilitate the coordination of their development with a view to the provision of telecommunication services;**
- i) in carrying out the above functions, give special attention to the requirements of the least developed countries.**

# Study Group 1

## Enabling environment for the development of telecommunications/ICT

- National telecommunication/ICT policy, regulatory, technical and strategy development which best enables countries to benefit from the impetus of telecommunications/ICTs, including infrastructure supportive of broadband services, cloud computing, network functions virtualization (NFV), consumer protection and future networks as an engine for sustainable growth
- Economic policies and methods of determining costs of services related to national telecommunications/ICTs, including facilitating the implementation of the digital economy
- Access to telecommunications/ICTs for rural and remote areas
- National policies, regulations and strategies for providing access to telecommunications/ICTs in rural and remote areas
- Access to telecommunication/ICT services by persons with disabilities and other persons with specific needs
- Migration and adoption of digital broadcasting and implementation of new services.

# Study Group 1 Questions

- **Question 1/1: Strategies and policies for the deployment of broadband in developing countries**
- **Question 2/1: Strategies, policies, regulations and methods of migration to and adoption of digital broadcasting and implementation of new services**
- **Question 3/1: Emerging technologies, including cloud computing, m-services and OTTs: Challenges and opportunities, economic and policy impact for developing countries**
- **Question 4/1: Economic policies and methods of determining the costs of services related to national telecommunication/information and communication technology networks, including next-generation networks**
- **Question 5/1: Telecommunications/information and communication technologies for rural and remote areas**
- **Question 6/1: Consumer information, protection and rights: Laws, regulation, economic bases, consumer networks**
- **Question 7/1: Access to telecommunication/information and communication technology services by persons with disabilities and other persons with specific needs**

# Study Group 1 Questions

- Question 1/1: Strategies and policies for the deployment of broadband in developing countries
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## **Study period 2014-2017**

**Study period 2014-2017 Question 4/1 focused on various topics such as new charging methods for services provided over NGN networks, infrastructure-sharing models, consumer price evolution and impact on ICT service usage, methods of determining the cost of licences for the operation of networks and/or the provision of telecommunication services and regulatory accounting in an NGN environment**



## **Study period 2018-2021 (Topics)**

**1) New charging methods (or models, if applicable) for services provided over NGN networks:**

**1.1) Methods for determining the costs of wholesale services.**

**2) Different models for infrastructure sharing, including through commercially negotiated terms:**

**2.1) For what type of infrastructure (or facilities) the provider party is free to negotiate reasonable commercial terms and conditions with a requesting party.**

**2.2) The impact of infrastructure sharing on investment cost, local loop unbundling, provision of telecommunication/ICT services, competition and prices to consumers: case studies with quantitative analysis.**

**3) Consumer price evolution and impact on ICT service usage, innovation, investment and operator revenues:**

**3.1) New and innovative business models for services deployed in an NGN environment, including methods encouraging the adoption and use of ICT services.**

**3.2) Trends in prices of telecommunication/ICT services, including international mobile roaming.**

**4) Trends in the development of virtual mobile operators and their regulatory framework.**

## Study period 2018-2021 (List of tasks)

	Description	Relationship
<b>T1</b>	New charging methods (or models, if applicable) for services provided over NGN networks, including Methods for determining the costs of whole sale services	in response to ITU-D Objective 2, WTDC Resolution 9
<b>T2</b>	Different models for infrastructure sharing, including through commercially negotiated terms	in response to ITU-D Objective 2, WTDC Resolution 20, WTDC Resolution 23
<b>T3</b>	Consumer price evolution and impact on ICT service usage, innovation, investment and operator revenues	in response to ITU-D Objective 2, WTDC Resolution 23
<b>T4</b>	Trends in the development of virtual mobile operators and their regulatory framework	in response to ITU-D Objective 2, WTDC Resolution 23

## **Study period 2018-2021 (Expected outputs)**

**Development of best practices for each of the following areas:**

- a) Promoting appropriate infrastructure sharing**
- b) Encouraging price/tariff reduction to consumers through competition**
- c) Stimulating access to and use of these services.**

## Question 4/1 Management team

**Rapporteur:**

**Mr Arseny PLOSSKY (Russian Federation)**

**Vice-Rapporteurs:**

**Mr Mohammed ABDULKADHIM ALI (Iraq)**

**Mr Haider Abd ALHASSAN YAHIA (Iraq)**

**Mr Emanuele GIOVANNETTI (Anglia Ruskin University)**

**Mr Jorge MARTINEZ MORANDO (Axon Partners Group Consulting)**

**Mr Ugur KAYDAN (Turkey)**

**Mr Ibrahima KONE (Mali)**

**Mr Talent MUNYARADZI (Zimbabwe)**

**Mr Huguens PREVILON (Haiti)**

**Mr Wesam M. SEDIK (Egypt)**

**Ms Gevher Nesibe TURAL TOK (Türk Telekom)**

**Ms Gillucia RAFALIMANANA (Madagascar)**

**Active collaborator:**

**Ms Archana Gulati (India)**

**BDT Focal Point:**

**Ms Carmen PRADO-WAGNER**

## **Question 4/1 Table of Contents**

### ***Chapter 1: New charging methods (or models, if applicable) for services provided over NGN networks***

#### **1.1 Methods for determining the costs of wholesale/advanced services**

##### **1.1.1 Impacts on the provision of traditional service**

##### **1.1.2 Impact on the provision of wholesale services**

#### **1.2 Significant Market Power (SMP) – national aspects**

##### **1.2.1 Retail level**

##### **1.2.2 Wholesale level**

#### **1.3 [Different models for planning NGN networks]**

#### **1.4 Country experience and case studies**

## **Question 4/1 Table of Contents**

### ***Chapter 2: Different models for infrastructure sharing, including through commercially negotiated terms***

#### **2.1 Different types/models for infrastructure sharing (passive, active)**

##### **2.1.1 On what level of network infrastructure sharing is possible (regional, national, municipal, local)**

#### **2.2 Regulatory frameworks for infrastructure sharing**

#### **2.3 Commercial terms and conditions for infrastructure sharing**

##### **2.3.1 What type/models of infrastructure could be a matter for release from regulation to negotiate reasonable commercial terms and all cooperative terms**

#### **2.4 Spectrum sharing framework within infrastructure sharing**

#### **2.5 The impact of infrastructure sharing on:**

##### **2.5.1 Investment cost**

###### **2.5.1.1 Impact on Capital Expenses (CAPEX)**

###### **2.5.1.2 Impact on Operation Expenses (OPEX)**

##### **2.5.2 Provision of telecommunication/ICT services**

##### **2.5.3 Market competition, including local loop unbundling**

#### **2.6 Country experience and case studies**

## **Question 4/1 Table of Contents**

### ***Chapter 3: Consumer price evolution and impact on ICT service usage, innovation, investment and operator revenues***

**3.1 The impact of infrastructure and spectrum sharing on prices to consumers**

**3.2 Impact of bundled ICT services on Average Revenue Per User (ARPU) in ICT (“Zero rating”)**

**3.3 ICT price baskets**

**3.4 New business models for provisioning of accessible and affordable ICT services to achieve Sustainable Development Goals (SDGs) and WSIS Action Lines (WSIS-AL)**

**3.5 Methods to encourage adoption and use of advanced ICT services**

**3.6 Trends in prices of telecommunication/ICT services**

**3.6.1 Impact of international mobile roaming on prices of ICT services on national level**

**3.6.2 Impact of licensing regimes on prices of ICT services on national level**

**3.7 Country experience and case studies**

## **Question 4/1 Table of Contents**

### ***Chapter 4: Trends in the development of mobile virtual network operators (MVNO) and their regulatory framework***

#### **4.1 Models of Mobile Virtual Network Operators**

##### **4.1.1 MNO – Mobile Network Operator**

##### **4.1.2 MVNO – Mobile Virtual Network Operator**

##### **4.1.3 MVNE – Mobile Virtual Network Enabler**

##### **4.1.4 MVNA – Mobile Virtual Network Aggregator**

#### **4.2 Regulatory framework in the field of MVNO**

#### **4.3 Commercial agreements in the field MVNO**

#### **4.4 Impacts of MVNO on market competition**

#### **4.5 Country experience and case studies**



## **Question 4/1 Table of Contents**

### ***Chapter 5: Best practices guidelines***

**5.1 Promoting appropriate infrastructure sharing**

**5.2 Encouraging price/tariff reduction to consumers through competition**

**5.3 Stimulating access to and use of these services**

### ***Chapter 6: [Revision of Recommendations D.15 and D.16]***

### ***Chapter 7: Lessons learned from workshop/s***

### ***Chapter 8: Conclusion***

## Question 4/1 Chapter editors

- **Chapter 1: New charging methods (or models, if applicable) for services provided over NGN networks**  
**(Chapter editors: Mr Jorge Martinez Morando / Mr Ugur Kaydan/ Mr Talent Munyaradzi)**
- **Chapter 2: Different models for infrastructure sharing, including through commercially negotiated terms**  
**(Chapter editors: Mr Wesam M. Sedik / Mr Talent Munyaradzi)**
- **Chapter 3: Consumer price evolution and impact on ICT service usage, innovation, investment and operator revenues**  
**(Chapter editors: Mr Emanuele Giovannetti / Mr Ibrahima Kone / Mr Huguens Previlon)**
- **Chapter 4: Trends in the development of mobile virtual network operators (MVNO) and their regulatory framework**  
**(Chapter editor: Mr Arseny Plossky)**
- **Chapter 5: Best practices guidelines**  
**(Chapter editor: Mr Emanuele Giovannetti / Ms Archana G. Gulati)**
- **Chapter 6: [Revision of Recommendations D.15 and D.16]**  
**(Chapter editor: Mr Arseny Plossky)**

## **Collaboration with other sectors (ITU-R)**

**ITU-R Study Group 1 *Spectrum Management***

**ITU-R Working Party 1B *Spectrum management methodologies and economic strategies***

- **ITU-R Handbook on National Spectrum Management. Geneva, 2015. <http://www.itu.int/pub/R-HDB-21>**
- **Report ITU-R SM.2012. Economic aspects of spectrum management. Geneva, 2016. <http://www.itu.int/pub/R-REP-SM.2012>**
- **Report ITU-R SM.2404. Regulatory tools to support enhanced shared use of the spectrum. Geneva, 2017. <https://www.itu.int/pub/R-REP-SM.2404>**

## **Collaboration with other sectors (ITU-T)**

### **ITU-T Study Group 3 *Tariff and accounting principles and international telecommunication/ICT economic and policy issues***

- Recommendation ITU-T D.000. Terms and definitions for the D-series Recommendations. Geneva, 2010. <https://www.itu.int/ITU-T/recommendations/rec.aspx?rec=10437>
- Recommendation ITU-T D.261. Regulatory principles for market definition and identification of operators with significant market power - SMP. Geneva, 2016. <https://www.itu.int/ITU-T/recommendations/rec.aspx?rec=12829>
- Recommendation ITU-T D.271. Charging and accounting principles for NGN. Geneva, 2016. <https://www.itu.int/ITU-T/recommendations/rec.aspx?rec=12830>
- Recommendation ITU-T D Suppl. 1. Cost and tariff study method. Geneva, 1988. <https://www.itu.int/ITU-T/recommendations/rec.aspx?rec=1>
- Recommendation ITU-T D Suppl. 3. Handbook on the methodology for determining costs and establishing national tariffs. Geneva, 1993. <https://www.itu.int/ITU-T/recommendations/rec.aspx?rec=3662>

## Question 4/1 Methods of Work

### Usual practice

- Question 4/1 meeting during the meeting of ITU-D Study Group 1 (once per year, half-day). Could be participated both physically and remotely. Translation for six languages of Union is provided by default
- Question 4/1 meeting during the set of ITU-D Study Group 1 Rapporteur Group meetings (once per year, one and a half day). Could be participated both physically and remotely. Translation for six languages of Union is provided by request
- Question 4/1 Management team e-meetings (2-4 times per year by Conference call)

# Question 4/1 in current study period

## Our achievements in 2018-2021 Study period

- 15 contributions received through meetings in Geneva from Member States, Sector Members and Academia, 4 more came from Rapporteur team
- Annual progress report for 2018, including final table of contents, list of relevant ITU-R/ITU-T publications, contribution of Q 4/1 to the ITU Tariff Policies Survey, reports on ITU events related to Q 4/1, intra- and inter- sectoral work, etc
- Panel session on Economic issues of modern communications markets was conducted in October 2018 in Geneva
- Joint workshop with Question 3/1 on Economic aspects of OTT are prepared to be held in October 2019 in Geneva
- Question 4/1 Expert meetings at regional events: Mexico and Burkina Faso in 2018, Dominican Republic, Togo and Ukraine in 2019

## **Question 4/1 in current study period**

### **Our plans in 2018-2021 Study period**

- **More contributions received through meetings in Geneva from Member States, Sector Members and Academia**
- **Draft Report at ITU-D Study Group 1 meeting at 2020**
- **Annual progress reports for 2019-2020**
- **Joint workshop with Question 3/1 on Economic aspects of OTT are prepared to be held in October 2019 in Geneva**
- **More joint workshops with another ITU-D Questions in 2020-2021**

## Question 4/1 Methods of Work

### New Opportunity

**Question 4/1 Expert group meetings (occasionally, during the other related ITU/BDT Events)**

Invite us, join us :-)





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**Thank you very much!!!**