ITU GSR
ONLINE 2021

Global Symposium for Regulators (GSR) 2021

Regional Activity Outcome Report (Arab States)

REGIONAL REGULATORY ROUNDTABLE
REGIONAL ECONOMIC DIALOGUE
FOR **ARAB STATES**

June 2-3 | 12:00 – 15:00 (CEST)

www.itu.int/gsr21-arb

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ACKNOWLEDGEMENTS

1. INTRODUCTION

ITU GSR-21 Regional Regulatory Roundtable (RRR-ARB21) and Regional Economic Dialogue (RED-ARB21) for Arab States was held online from **2-3 June 2021, 2021, 12h00 – 15h00 (GMT+2 (CEST))**.

The GSR Regional Regulatory Roundtable was organized within the context of the Global Symposium for Regulators 2021 on "Regulation4digitaltransformation: Accelerating inclusive connectivity, access and use".

These events were organized in collaboration with the League of Arab States (LAS), the Arab Network for Regulators (AREGNET) and the Gulf Cooperation Council (GCC), and supported by GSMA, SAMENA and other regional and international entities. The event provided a unique opportunity for all stakeholders to actively share knowledge and experiences on regulatory and economic themes to foster effective partnerships for advancing connectivity and achieving the SDGs, and to create an enabling environment for the realization of meaningful and inclusive connectivity in the Arab region.

Key topics covered by the RRR-ARB21 included:

- GSR Best Practices Guidelines (BPG) consultation: Regulatory uplift for financing digital infrastructure, access and use;

- Exploring Regional Perspectives on Regulation4digitaltransformation: Accelerating inclusive connectivity, access and use;

- ICT Competition Policy and Regulation in a Digital Apps environment in the Arab region.

The Regional Economic Dialogue (RED-ARB21) shed light on:

- The economic and financial aspects and models for the emerging digital ecosystem among others giving a platform to address emerging challenges and opportunities in the region;

- Advances in regulatory costing and pricing strategies in the Digital era – practices in the Arab States;

- Policies, regulations, and economic approaches for Digital Transformation in the Arab States.

2. PARTICIPATION AND DOCUMENTATION

RRR-ARB21 and RED-ARB21 were attended by over 112 participants from 18 Member States from the Arab region and 13 Member States from other regions, including representatives of ICT Administrations and National Regulatory Authorities (NRA) from ITU Member States, as well as representatives of Ministries, regional regulatory bodies, private sector, regulatory associations and academia. The event was also livestreamed on Twitter and YouTube.

RRR-ARB21 and RED-ARB21 were held entirely in a virtual format. All the presentations delivered during the event are available in electronic form on the event webpage here. The event was supported with English captioning and conducted in Arabic, English and French with simultaneous interpretation. Video recordings of the events, as well as this outcome report, are also made available on the website.

3. OPENING

Mr Stephen Bereaux, Deputy Director of the Telecommunication Development Bureau (BDT), International Telecommunication Union remarked that as the world is still adapting to the new normal created by the COVID-19 pandemic, ITU is working to mobilize actions around the call to 'build back better'. As the United Nations specialized agency for information and communication technologies, ITU and its stakeholders are more committed than ever to ensure that people everywhere benefit from the transformative potential of ICTs.

With the growth that ICTs have had worldwide, it is undeniable to highlight its importance in the socio-economic development of countries. It is why events such as these GSR Regional Regulatory Roundtable and Regional Economic Dialogue have great relevance. In addition, he also highlighted that the GSR Best Practice Guidelines provide concrete steps towards enabling ICT Regulators to continue regulatory reform towards achieving prosperous and inclusive digital markets, with this year's theme being: Regulatory uplift for financing digital infrastructure, access and use.

Mr Bereaux also stated that the sessions – on collaborative regulation, competition policy and regulation, regional cooperation and partnership and economic and tariff policies – were very much aligned with the GSR-21 theme on "Regulation for Digital Transformation: Accelerating inclusive connectivity, access and use" and that they would provide very important inputs towards ITU's global sessions to be held on 21-25 June.

He continued by underlining that during the recent years, we have seen how the ICT markets have evolved as well as how policy and regulatory priorities and economic implications are changing worldwide, including the Arab region.

Mr Bereaux mentioned that there is still significant potential for progress with regards to the maturity of regulatory frameworks in the Arab region with advances up the 'generation ladder' being slower than in most other regions. He added that the pace is likely to accelerate over the next few years with major reforms in the pipeline in a number of Arab States, in addition to pressure stemming from the global Covid-19 pandemic to speed up the making of investment friendly and consumer-focused regulations. Most movement in the region has resulted from G2 countries progressing to G3 and, to a lesser extent, G3 countries moving up to G4. Arab States is the region with the widest gap between the highest scoring and the lowest scoring country, he stated.

He concluded that in an effort to expand on the knowledge tools and insights provided to ITU's membership and to the stakeholders regionally, ITU was pleased to announce the launch of the ITU thematic report on "ICT competition policy analysis and regulation in digital applications environment" as "GSR discussion paper".

H. E. Ambassador Dr. Kamal Hassan Ali, Assistant Secretary-General for Economic Affairs - League of Arab States, stressed on the role ICTs have been playing during the COVID-19 pandemic in the past two years. He mentioned how technologies have become more important than ever to maintain or respond to the COVID-19 pandemic, and how COVID has taken a new turn in communications, where ICTs became a cornerstone in facilitating affairs. Impact was seen through the increased use by institutions and individuals of the ICTs to track people who have been infected with the pandemic, in addition to the use of digital services to obtain financial and government services through the Internet which shows technology is essential and the main partner in managing crisis around the world.

H.E. Dr. Kamal clarified that the need to deal with several ICT issues and policies was necessary to provide communication services in an affordable price for everyone in the Arab region. He mentioned that the correct framework required sustainability and inclusivity, while adding that the COVID-19 has shown the greater gaps between countries and within countries. H.E. Dr. Kamal also highlighted that it is not just the adoption of governance frameworks, but mostly the non-implementation of such frameworks and approaches in an equitable manner that is important. Regulatory processes should be actively applied, this to help in formulating and protecting the infrastructure and information.

This will pave the way in order to connect half of the world, which is still unconnected, he explained, and could be a tool to guarantee equity whereby all participants can enjoy equal opportunities and encourage sustainability for investment in the infrastructure to reach a

critical period. Various stakeholders should be included, and decision makers need to be supported to modernize the new policies and frameworks to encourage investment and competitiveness in this fast-pace evolving sector. The Arab world has to cope with the new technological revolution.

H.E. Dr Kamal also mentioned the need to concentrate on sharing data and the use of ecological systems nationally and globally to achieve the goals of digital transformation. Specific policies are also required to use opensource data and Big Data and artificial intelligence when taking decisions and enhancing innovation, capacity building.

In view of the increasing needs of citizens, it is important to encourage the active participation of citizens and planning based on their needs, when trying to achieve the digital transformation. This requires more digital connection, and governments therefore need to pay more attention to secure the information which would allow regulatory bodies to encourage the development, a certain number of digital innovations such as digital identity and develop better institution policies to protect personal data, and to have a system that is active and efficient to protect the personal ID to present general services and to plan, take and enlighten decisions H.E. Dr Kamal concluded.

H. E. Dr Zineddine Belattar, President of the Arab Network for Telecommunications Regulatory Authorities (AREGNET) and Chairman of Council of Post and Electronic Communications Regulatory Authority (ARPCE) – Algeria, remarked that we are living and witnessing a swift digital world of transformation, with an increased pace of development of communications, Cloud computing systems and connectivity to ICTs. A smarter world, access to communication networks and providing broadband services in an affordable manner is more important than ever, especially with the availability of Big Data and necessary infrastructure for digital transformations. He clarified that a great challenge is being faced when providing applications and services using a broadband in an affordable manner.

H.E. Dr Zineddine highlighted the importance of closing the digital gap between Arab countries and of developing the technologies which have become the main source of income in those countries. This can only be done by facing the challenges, by facilitating comprehensive telecommunications services, and providing broadband to all citizens, while at the same time encouraging scientific innovation to move forward with Sustainable Development for all people in the region. He clarified that the Arab network is striving to strengthen cooperation between Member States to ensure access to broadband in an affordable and secure manner.

There is a need today in this digital era to define ICT policy and regulatory frameworks that are comprehensive, modern, flexible and mechanisms that are collaborative in nature to achieve the SDGs. H.E. Dr Zineddine mentioned that this new digital era has many opportunities, however, these also encompass certain challenges like regulating digital data and digital ID- it is therefore necessary to ask a certain number of questions during the symposium. What is the future of regulation, when will we have digital? What about the specificity of digital information; what about companies that monopolize the cloud computing services?

The Arab region today is witnessing many strategies and initiatives and digital transformation programmes in order to build an economic and digital society that's based on digital platforms, and therefore it is up to the IT communication companies to improve their offers and it is up to the regulators to work together in promulgating legislations that would encourage parties to invest to achieve comprehensive connectivity and the use of broadband. H.E. Dr. Zineddine also mentioned that the issues that were discussed in the roundtable were very important, as they included many issues and important questions related to organizing communications and technologies and especially with regulation for digital infrastructure and for the competitive policies in digital application, and called on participants to enrich the discussions and come up with recommendations that will strengthen digital cooperation in the Arab region.

Ms Mercy Wanjau, GSR Chair and Acting Director-General Communications Authority of Kenya (CA Kenya) began her intervention by praising the participation to the GSR Regional Regulatory Roundtable and Regional Economic Dialogue for the Arab States, which seeks to provoke discussion on issues that are pertinent to the region and the overall objectives of both the GSR and the ITU community at large.

She stated that she was pleased to continue with the new format launched last year, where the GSR-21 programme is a series of interconnected regional and virtual events which will increase the inclusion and participation of the regulatory community and foster discussions on regional regulatory and economic perspectives, challenges and innovative solutions in the lead up to the core global sessions.

Ms Wanjau highlighted that the GSR continues to provide regulators world over with a platform to share experiences on best practices. Such best practices, if widely adopted, can help countries leapfrog their economies and fully benefit from the immense possibilities that ICTs present to all of us, she said.

The challenges experienced during this last year, she noted, have not only strengthened the ties that bind us, but also offered all of us a moment of introspection. They have presented new opportunities and a sense of urgency to explore new regulatory and more agile and flexible approaches to accelerate the inclusive growth of ICTs she stated.

Ms Wanjau also mentioned that the key to realize this ambition is not simply coverage, it is also affordability, skills as well as availability of relevant content, making the theme of GSR-21 highly relevant.

Finally, she highlighted that the GSR Best Practice Guidelines remain an incredible tool for regulators to leverage globally acceptable approaches. She also encouraged National Regulatory Authorities and Regional Regulatory Associations in the Arab States Region as well as the larger regulatory community, to gain interest and promptly respond to the ongoing consultation that shall inform the outcome of the 2021 Regulatory Best Practice Guidelines.

Group Photo
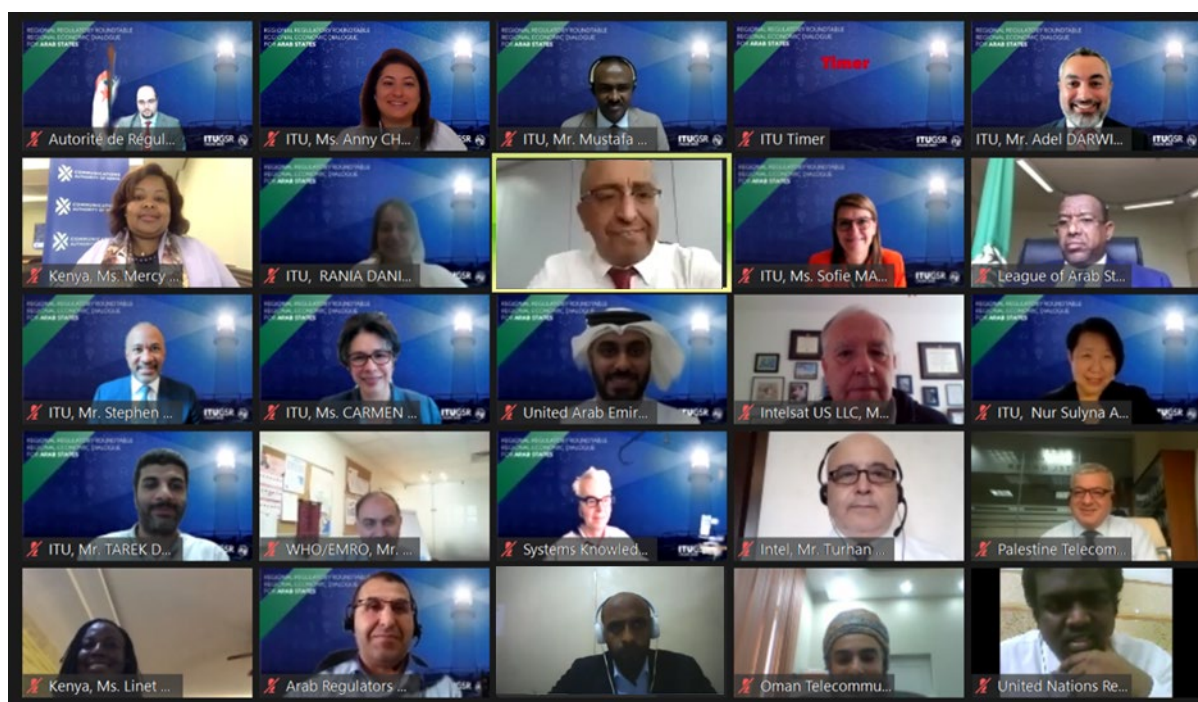
4. REGIONAL REGULATORY ROUNDTABLE (RRR) SESSIONS

GSR-21 Best Practice Guidelines (BPG) consultation: Regulatory uplift for financing digital infrastructure, access and use

Speakers: **Ms Carmen Prado-Wagner,** Senior Officer, ICT Policy & Regulation, Regulatory and Market Environment Division, Telecommunication Development Bureau, ITU and **Eng. Mustafa Al Mahdi**, Programme Officer, ITU Arab Regional Office presented the GSR Best Practice Guidelines for seek to identify ideas, views and experiences on the main them of GSR-21 "Regulatory uplift for financing digital infrastructure, access and use" which this year focus on three major themes:

- Inducing new, effective and agile financing mechanisms to digital infrastructure, access and use;

- Prototyping regulatory patterns for the post-Covid digital world;

- Transformational leadership to unleash the power of emerging technologies and business models.

More information about this initiative is available on the [GSR consultation webpage](#).

RR Session1: Understanding collaborative regulation for inclusive connectivity

Focus: Presentation of the collaborative regulation case studies and discussion on national approaches leading towards fifth-generation (G5) regulation

Moderator: **Ms Youlia Lozanova**, Senior Programme Officer, ICT Policy & Regulation, Regulatory and Market Environment Division, Telecommunication Development Bureau, ITU

Setting the Context: Presentation: **Ms Sofie Maddens**, Head of Regulatory and Market Environment Division, Telecommunication Development Bureau, ITU

Panellists: Mr Ahmed Said, Executive Director, International Policies Dept, NTRA- Egypt, **Mr Abdelaziz TIB**, Director, Head of Regulation Mission, ANRT- Morocco and **Mr Muath AlRumayh,** Director, International Cooperation and Negotiation Dept. CITC- Saudi Arabia.

Ms Lozanova kicked off the panel by providing context around the concept of collaborative regulation, which, she highlighted, marks a change in the way that governments develop regulatory frameworks and, importantly, how they implement them. ITU, she said, has led this work while at the same time building a global community around it – by the regulatory community and for the regulatory community across regions.

In her presentation, **Ms Maddens** gave an overview of the key elements of collaborative regulatory approaches, focusing on the role of the different stakeholders. She highlighted that the combination of collaboration and informed decisions together with the social and economic impact considerations, are all conducive to fast forward digital transformation for all. Within that context, the role of regulators, she said, is to create a predictable regulatory framework and transparent consultation processes. Looking at the evolution of regulation, there has been tremendous regulatory reform and change in the past 20 years, and yet, around the world, four out of ten countries are still in the less mature generations of regulation. G5 is the next frontier, with collaboration being the defining element of digital regulation and digital transformation.

Addressing national approaches to collaborative regulation, the panel featured speakers from Egypt, Morocco and Saudi Arabia.

Mr Ahmed Said shared the Egypt experience on how the telecom regulator is cooperating with the financial regulator for the sake of digital financial service growth. He also explained the work done by the regulator concerning collaborative regulation with other national regulatory utilities. Mr Said also emphasized on the proactive roles for regulators to encourage the development of a range of 'digital initiatives' including digital identity, digital money and financial services.

Mr Abdelaziz Tib shared how the regulations in Morocco moved through the generations of regulation, and explained that collaborative and participatory regulation has become a necessity, not an option.

Mr Muath AlRumayh shared how the Saudi ICT regulator moved from G1 to G4 regulatory benchmark and how ICT regulatory tools have been developed during the past years. He also emphasized that regulators should also be open to innovation and consider experimental regulation and innovative regulatory approaches such as regulatory sandboxes while listening to the proposals and inputs of all stakeholders, including civil society and citizens.

Panellists also stressed the importance of regulatory impact analysis, which they provided, should be based on data and evidence with the participation of the different stakeholders. They explained that this will enhance transparency of decision-making by collaborating with

a wide variety of institutions. It was also suggested that engagement can be enhanced through the creation of Committees and by regularly seeking the opinions of industry on technical, economic and regulatory issues.

Panellists also agreed that regulators need to strengthen regulatory capacities to follow market trends and developments and focus on the achievement of social and economic objectives. In addition, Panellists highlighted the need to create a culture of innovation, to experiment, and encourage the sharing of experiences for better regulation. Panellists agreed that collaboration and sharing of information and experiences allows regulators to have access to symmetrical information. They concluded by highlighting that Innovation and collaboration go hand in hand in the journey towards better regulation and more collaborative regulation.

RR Session2: ICT Competition Policy and Regulation in a Digital Apps environment in the Arab Region

Focus: Results from the ITU Thematic Report on ICT Competition Policy, Regulation and Analysis in a Digital Apps environment in the Arab Region

Moderator: **Mr Karim Abdelghani,** Programme Coordinator, ITU Arab Regional Office

Panellists: Mr Habib Abdul Salam, Permanent member of the Board of the Instance Nationale des Télécommunications (INTT)-Tunisia**, Dr Reham A. Elmayet**, Telecommunication Expert, League of Arab States (LAS), **Eng. Abdulrahman Al-Marzouki**, Gulf Cooperation Council (GCC) representative, **Mr Bocar Alpha Ba,** CEO and Board Member, SAMENA Telecommunications Council**, Ms Gaia Penteriani**, Director of Policy and Regulation, GSMA**, Dr Chafic Chaya**, Regional Communications Manager, Middle East Region, RIPE NCC, **Mr Johan Keetelaar,** Director Public Policy, Head of Connectivity and Access EMEA, Facebook.

Mr Simon Molloy presented the main results from the new ITU Publication: ICT Competition Policy, Regulation and Analysis in a Digital Apps environment in the Arab and Africa Regions highlighting key recent global developments in relation to the OTT/online service providers that are most relevant to Arab counties. He also presented precedents that can be utilised as examples of approaches, as well and as impacts in the Arab region arising from the impacts of the COVID-19 pandemic. on ICTs competition (and hence on competition law and policy).

Mr Molloy highlighted issues about the factors effecting digital transformation and the shift from traditional regulatory approaches and the digital transformation as well as the platforms and OTT services, the characteristics and the challenges including taxation issues and the regulatory road ahead. Moreover, he also highlighted that the main factors driving the need to new regulatory approaches which are the new technologies, digital platforms and COVID-19.

Mr Molloy concluded his presentation with some checklist for emerging regulatory issues and recommendations.

Mr Habib Abdul Salam presented the public sector perspective, legal frameworks in the Arab countries relating to the imposition of the principle of technological neutrality on operators, and queried whether Arab countries have taken specific measures to limit the negative impacts of OTTs application operators on the revenues of national telecommunications companies. Mr Abdul Salam mentioned that there is a lack of a specific regulatory framework for competence and regulation in an environment market with the presence of OTTs. He emphasized on the importance of the principle of neutrality as a regulatory authority, in the current conditions, cannot regulate OTT activities. He recommended that it is imperative for regulatory authorities and competition authorities to take stock of the changes taking place on the market and highlighted the measures needed to be taken to review the competition strategy and the goal here is to ensure a reconciliation with the situation of actors and the needs of consumers. National Regulatory Authorities need to give greater attention to the harm caused to national operators and come up with an appropriate strategy for the digital transformation.

Mr Habib Abdul Salam concluded his intervention by emphasizing that OTT operators also present an opportunity to develop the market. This is an opportunity for national operators and we need to define how can we have a model which benefits OTT operators and national operators, where the goal would be to ensure that both parties have a fair competition environment.

Eng. Abdulrahman Al-Marzouki highlighted that COVID-19, allowing oddities that were restricted before COVID to be able to expand their services freely in the GCC countries and OTT applications will continue to be permanent players in the market and definitely this

could be a shift to a more open policy. Eng. Abdulrahman Al-Marzouki shed light as well on increased measures taken by the regulator. Telecom operators specifically have to tackle the situation of the increased usage imposed by COVID-19.

Dr Reham A. Elmayet highlighted how can traditional National Regulatory Authorities collaborate to promote progress in a range of critical areas related to their core mission including: digital identity, digital money and financial services, the development of better government institutions for the protection of personal data. Dr Elmayet shed light on initiatives launched by League for Arab States including Arab ICTs strategy to strengthen the use of digital technologies as well as Artificial Intelligence Ad Hoc Group.

Mr Bocar Alpha Ba highlighted the key areas that require attention by policy makers and regulators to ensure that the sector have sufficient incentives for the private sector (in particular network operators) to continue its dedication of resources to achieving the joint goal of Universal Digital Access. Mr Bocar emphasized on the need of policy makers and regulators to focus on regulatory frameworks which need to be adjusted to stimulate investment and maintaining healthy level of competition. He concluded his intervention by inviting meeting participants to look at recent ITU study, labeled the impact of policies, regulation, institutions on ICT sector performance which highlights the regulatory institutional framework which is composed of regulatory authorities, regulatory mandate, regulatory regimes, and competition model, it is very linked to a positive, significant increase in telecommunication investment.

Ms Gaia Penteriani presented the GSMA's position regarding ex ante regulation of digital platforms and highlighted how a level playing field could be created that protects the interests of tech operators and promotes as well fair competition environment.

Dr Chafic Chaya highlighted administrative actions impacting connecting to Internet and accessing the digital services as well as progress the region has over the past two years, where regulators are taking a closer look at the value of collaborative and adaptive approaches to policy and deliberation. In addition, Dr Chaya shed light on the role of the regional Internet industry, supporting the infrastructure development in the Arab region.

Mr Johan Keetelaar expressed his views on regulation of platforms/OTTs vs more traditional players, such as from the telco industry. Mr Keetelaar highlighted the need for close collaboration between OTTs and telcos operators and between regulator and the importance of the engagement and speak with each other.

Panellists also stressed on the need to promote collaboration and inclusiveness with appropriate and adaptive regulations. They emphasized on the need of the regional leaders to build on national strategies and approaches for key areas, data protection, cybersecurity, revisiting the initial ICTs strategies.

5. REGIONAL ECONOMIC DIALOGUE (RED) SESSIONS

RED SESSION 1: Advances in regulatory, economic and financing strategies in the Digital era – practices in the Arab States

Focus: Policies, regulations, economic approaches, and financing strategies in the Digital era – practices in the Arab States

Session organized in coordination with ITU-D Study Group 1 Question 4/1

Moderator: Ms Carmen Prado-Wagner, Senior Officer, ICT Policy & Regulation, Regulatory and Market Environment Division, Telecommunication Development Bureau, ITU.

Panelists: Mr Youssouf Soule, Head, Development and Communication Projects Dept, ANRTC, Comoros, **Ms Karima Mahmoudi,** Central Director of Electronic Communications Markets, Observatory, Instance Nationale des Télécommunications (INTT), Tunisia**, Mr Arseny Plossky**, Rapporteur Question 4/1, Russian Federation, **Mr Jorge Martinez**, Axon Partners Group, Vice Rapporteur ITU-D Study Group 1 Question 4/1, **Mr Raul Katz**, Director of Business Strategy Research (Columbia Institute for Tele-Information), and **Mr Pedro Seixas**, Incyte Consulting, ITU expert.

TELECOMMUNICATIONS INVESTMENT PER CAPITA (USD)			
	2019	**2020**	**Delta**
WORLD	$ 50.86	$50.77	-0.2 %
Africa	$ 9.81	$ 9.12	-7.0 %
Latin America and the Caribbean	$ 45.16	$41.99	-7.0 %
Asia and Pacific	$ 30.08	$ 29.22	-2.9 %
Arab States	$ 42.54	$ 41.09	-3.4 %
Commonwealth of Independent States	$ 31.93	$ 33.04	3.5 %
Europe	$ 99.92	$ 101.77	1.9 %
North America	$ 291.50	$ 305.28	4.7 %

Source: ITU (2021). The Economic Impact of Broadband and Digitization through the Covid-19 pandemic - Econometric Modelling

Mr Raul Katz presented on the telecommunication industry in the post-COVID-19 world. He explained about the challenges we are facing in the context of COVID-19 and how this crisis has negatively impacted telecommunications investment in developing countries. The econometric modelling of the impact of Broadband and digitization through the pandemic show how the investment on telecommunication/ICT had negative impacted many regions with a reduction of investment of 3.4% during 2020 for the Arab States.

In this context five key points are very important to consider: 1) It is critical to explore new business models and financing methods to address the digital divide in the context of the pandemic; 2) The universal service funds cannot address, on their own, the digital divide; 3) There is no single model to be relied upon; the solution to the problem must be tackled through a combination of business models and investment incentives; 4) A large part of potential business models existed before the pandemic – the challenge remains how to scale them; and finally, 5) The implementation of such models requires the partnership of multiple stakeholders which, by definition, might not share common interests, which raises the potential for the so-called "coordination failures".

Mr Arseny Plossky presented the final report and works of the ITU-D Study Group 1 Question 4/1 on economic policies and methods of determining the costs of services related to national telecommunication/ICT networks. He explained that during the study

period 2014-2017 the Rapporteur's Group for Question 4/1 focused on various topics such as 1) new charging methods for services provided over Next Generation Networks (NGN), 2) infrastructure-sharing models including through commercially negotiated terms, 3) consumer price evolution and impact on ICT service usage, innovation, investment and operators revenues, 4) methods of determining the cost of licenses for the operation of networks and/or the provision of telecommunication services and regulatory accounting in an NGN environment, 5) trends in the development of mobile virtual network operators (MVNO) and their regulatory framework.

He explained that several country cases were also considered, specially focusing on wholesale offer related to the modern broadband networks; on the methodology and criterion for significant market power (SMO) determination; the experience on the use of different cost models for determination of wholesale tariffs as well as on regulation of interconnection; and finally on infrastructure sharing initiatives and regulation. This report will be available very soon in the framework of the ITU-D Study Groups activities.

We have observed an increasing use of cost models by Arab States, especially Bottom-Up and Top-Down
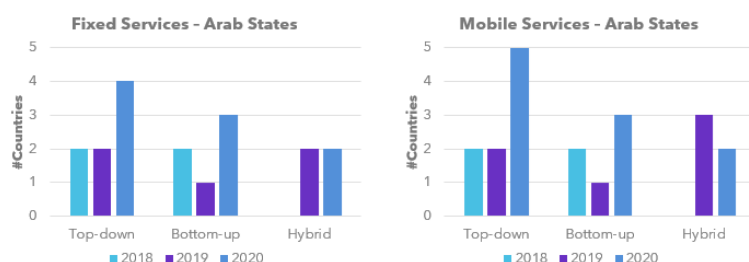

Mr Jorge Martinez provided an overview of the outcomes of the ITU-D Study Group 1 Question 4/1 work in the period 2018-2021, with regards to cost modelling of ICT services. He stressed on how these outcomes are expected to be useful for Member States not only for the definition of tariffs of digital services, but also to measure and take informed decisions to bridge the digital gap. He also informed that based on the data from the ITU Tariff Policies survey from the ICTEye[1], we have observed an increasing use of cost models in the Arab States, especially applying bottom-up and top-down approaches for fixed and mobile. services. When explaining about cost modelling, he said "it is not just about implementing models; there is also a number of different processes that are part of that, such as the policy and tariff regulation, network operators also have a lot to say on this. For this reason, it is necessary to look at how to involve them, how to provide better engagement with operators and this makes things much more interesting and fruitful for all stakeholders". Finally, it was highlighted that the main objective of most ICT regulatory authorities is to foster fair and non-discriminatory were maintaining healthy competition between network providers.

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[1] ITU ICTEye: https://www.itu.int/net4/ITU-D/icteye#/
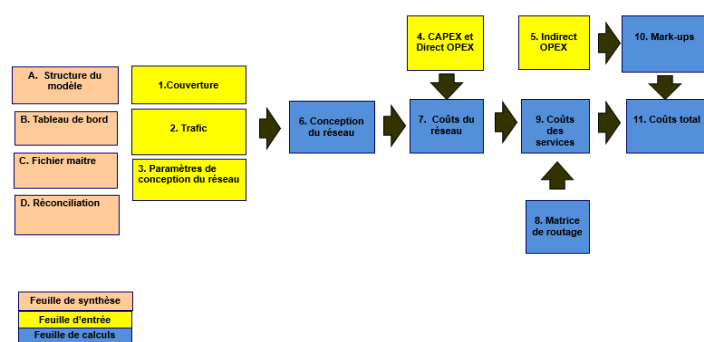
Mr Youssouf Soule presented the experience of Comoros on cos modelling electronic communication networks. This project was implemented as direct assistance with the ITU Development Sector. He explained that this project was implemented in the context of the opening of the market to competition in 2016, as the ANRTIC did not have a costing model to monitoring the operator's prices of telecommunication services. He briefly presented the structure of the cost model, the costing assumptions, the long Run Incremental Cost (LRIC) costing methodology applied and finally the results obtained for wholesale tariffs. An example of the glidepath illustrating the evolution of tariff prices of mobile services from 2020 to 2024 was shown. The future expectation is the introduction for ISP and mobile virtual network operators (which authorizations are in process), in this sense, the cost model should have adjustments to consider these new services providers.

Mr Pedro Seixas completed the presentation of Mr Soule, informing about the challenges such as the availability of information, the market structure, the utilisation of assumptions in terms of specific data such as traffic in municipalities due to the asymmetry of data from the network operators. Mr Seixas said "the outcomes of the model were good in terms of what could be useful for the ANRTIC in setting up lower termination rates for voice calls, taking into account that this is a general trend in the world. Voice is becoming very less important in terms of cost, because data is growing up fast, in this sense, most of the cost is being allocated to supply data services". He also explained how with this cost model ANRTIC could calculate in detail the cost of bundled services to assess if operators are in reality practicing excessive prices because if customers are not using the total bundle or packages of services, they might be paying a much higher price.

Ms Karima Mahmoudi explained about changes in the telecommunication/ICT sector in Tunisia. The telecommunications is one of the most dynamic sectors today which requires rapid regulatory change to keep speed with the growth of the digital domain. Especially in a crisis period as we have had with COVID-19. In Tunisia, the regulation of the telecommunication sector began in 2001 with the setting of the National Regulatory Authority INTT, which managed competition in various sectors, voice, fixed mobile data with several actors entering the market. She said that "there are fixed prices for competition. We have been adapting to the market context and we have moved to ex post regulation and national telecommunications body was entrusted with conducting market analysis studies for telecommunications to make the necessary changes to guarantee fair competition for access at wholesale and retail level". She concluded informing that they have focused on a new digital regulatory code which aims to promote the Digital Economy in Tunisia as well as integration into the global system, especially in terms of financial inclusion, infrastructure access, Internet Governance, consumer rights, digital rights and freedom, especially protection of personal data and platforms and digital inclusion.

RED SESSION 2: Policies, regulations and economic approaches for Digital Transformation in the Arab States

Focus: Policy and Regulatory Tools for Digital Transformation

Moderator: Ms Sulyna Abdullah, Chief, a.i., Digital Knowledge Hub Department, Telecommunication Development Bureau, ITU

Panelists: Mr Abdullahi Abdiaziz Mohamed, General Manager, National Communications Authority (NCA), Somalia**, Mr Ammar M. Hamadien**, Director General, National Information Center, Sudan, **Mr Dany Wazen**, Digital Transformation and ICT Specialist, UNDP RBAS Regional Hub**, Dr Badr N. Alsuwaidan, VP & Chief Technical Officer**, ARABSAT, **Ms Kholoud Aldorgham**, Director General, Fiber Connect Council MENA.

Dr David Rogerson presented the Policies, regulations and economic approaches for Digital Transformation focusing on Arab States. During his presentation, Dr Rogerson highlighted that digital platforms are central to the regulatory transformation, the fifth-generation and digital regulation and many of the tools that we have been using in the past, like market analysis, interconnection modeling access pricing, have to change to take account of the disruption that those digital platforms will create.

Dr David briefly introduced the following points:

- Convergence and bundling and how made it quite difficult to draw boundaries to markets.

- Interconnection and cost modeling

- Infrastructure access

- Taxation

He concluded his presentation by highlighting those new approaches for regulation are now required, how traditional regulation might be changed through the digital transformation process, what is required to be effective digital regulators as well as tracking progress towards digital regulation across the region. Dr David emphasized that infrastructure access is becoming more important and digital transformation has changed the ICTs landscape.

Mr Abdullahi Abdiaziz Mohamed provided quick overview on the development of ICTs sector including the observed enormous growth in the telecom sector and mobile financial services in Somalia as well as the establishment of new Telecom regulator and developing new ICTs Policy and Strategy with support of ITU. Mr Abdullahi emphasized on promoting connectivity, as connectivity is the first and foremost to digital transformation and consider infrastructure in the greater environment to realize connectivity. Mr Abdullahi shed light on the role of the regulator to provide licensed framework that encourage innovation as well as competition.

Mr Ammar M. Hamadien Highlighted the recent development in ICTs structure in Sudan by creating the new Ministry of Telecommunications and Digital Transformation and he mentioned this signals the focus of Sudan on digital transformation. Mr Ammar shed light on plans of the National Information Center plan to play a pivotal role in the country's

transformation and ongoing efforts to develop digital transformation strategy with support of ITU and other regional and international organizations.

Dr Badr N. Alsuwaidan highlighted aspects of industry and economy related to satellite, especially in the Arab region. Dr Badr also showed the role ARABSAT has played during the pandemic and specifically satellite industry and providing connectivity and access especially for education sector in Arab region.

Ms Kholoud Aldorgham highlighted the mission of Fiber Connect which focus on the significance of the infrastructure to bridge the digital gap. Ms Kholoud also shed light on the need of the goals and visions that should be realistic and achievable within the abilities of the country. She also emphasized on the importance of fund availability and infrastructure and advancement and also the maturity of the regulations and its unique policy.

Mr Dany Wazen highlighted the digital transformation is a key area UNDP working on and would entail innovative policy change, specifically innovative policies and regulations and economic approach for digital transformation as well as the digital skills and digital skills development. In this regard, Mr Dany informed the meeting about the ITU-UNDP platform that have launched which will assess the job market in the country, the top demand of the jobs, what are the required level of skills and the digital skills and community skills.

Panellists highlighted and emphasized the following:

- Regulatory tools have to change to take into account for the disruption from the digital platforms and those new approaches are required

- The need for swift policy

- Digital skills entrepreneurship.

- It is a consensus that in order have the best regulations is to have a good vision

- Attractive task policy for ICT infrastructure

- Access to infrastructure and adopt new economic approach such as adoption of the AI and implication on the economy as well as adoption of the cloud by the Government and private sector.

- Lack of funding in research and development is holding back the technology development in the region. Which is reflected on the process of digital transformation.

- Regulatory strategy that is a comprehensive, inclusive and forward looking.

- Balanced, cross sectorial and adopt to guide the digital transformation process in countries as well as within regions.

6. CLOSING - Summary and conclusions

Mr Adel M. Darwish, Regional Director of ITU Arab Regional Office initiated his intervention by stating that the ITU GSR-21 Regional Regulatory Roundtable (RRR-ARB21) and Regional Economic Dialogue (RED-ARB21) for Arab States is one of the key events in

the Arab region, which is principally focused on the economic and regulatory aspects of ICTs.

By way of a brief overview, on the first day was the GSR Regional Regulatory Roundtable for the Arab region, followed by two interesting sessions - the first on understanding collaborative regulation for inclusive connectivity "The G5 regulation", which provided experiences coming from different countries in the region, on different partners and collaborative work, and the second session on ICT Competition Policy and Regulation in a Digital Apps environment in the Arab Region, which highlighted the traditional regulatory issues and approaches and impacts of digital transformation, regional benchmarks, digital platforms and OTT services, taxation issues and regulatory road ahead with some recommendations.

On the second day was the Regional Economic Dialogue for the Arab region (RED-ARB21), which is an event has been re-launched last year and has been important in the context of the region. The RED-ARB21 shed light on the economic and financial aspects and models for the emerging digital ecosystem among others giving a platform to address emerging challenges and opportunities in the Arab region. In addition, the RED-ARB21 discussed the advances in regulatory costing and pricing strategies in the Digital era – practices in the Arab States with some impact stories from LDCs as well as the policies, regulations, and economic approaches for Digital Transformation in the Arab States.