

Living in a world of digital opportunities

A Snapshot Report of the Global Symposium for Regulators 2017





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GSR-17: Living in a world of digital opportunities

Brahima Sanou

Director, ITU Telecommunication Development Bureau

would like to express my sincere thanks to the Government of the Commonwealth of Bahamas and the Utilities Regulation and Competition Authority (URCA) for their outstanding hospitality at the 17th annual Global Symposium for Regulators (GSR-17), which was held from 11 to 14 July at the Atlantis Conference Center, Paradise Island.

I am very happy that GSR-17 has, once again, successfully provided the platform for the interactive discussions between participating heads of national telecom/ICT regulatory authorities, and private sector executives, from around the world. Together, they addressed today's ICT regulatory-related issues across an increasing number of sectors. We are now "Living in a world of Digital Opportunities" and with those opportunities comes a new set of challenges, requiring a new set of regulations.

This year's GSR featured discussions on key topics including: artificial intelligence; virtual reality and robots; collaborative regulation in a digital ecosystem; reliability of networks and devices for digital services; and affordable access to ICTs for the United Nations Sustainable Development Goals.

A pre-event featured the Global Dialogue on Digital Financial Inclusion, and welcomed participants to discuss financial inclusion and, in particular, the security of digital financial services.

I am delighted to present you here a snapshot of GSR-17 and hope to meet you next year at **GSR-18** in Geneva, Switzerland.



We are now 'living in a world of digital opportunities' and with those opportunities comes a new set of challenges, requiring a new set of regulations.

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* This 'Snapshot Report' is intended only to recap some of the highlights of GSR-17. It is not the official GSR-17 report.



Living in a world of digital opportunities

A Snapshot Report of the Global Symposium for Regulators 2017



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Setting the agenda ...

At the Global Symposium for Regulators (GSR), information and communication technology (ICT) regulators and private sector executives come together every year to discuss policy and regulatory challenges, opportunities and best practices.

Here are a few of the exciting topics that global leaders discussed at the GSR-17 thematic pre-event.

Global Dialogue on Digital Financial Inclusion: The Security of Digital Financial Services

Technologies that can protect e-transactions	How to deal with a cyber-attack	Ensuring reliability, security and trust in digital financial services

GSR-17 featured a packed agenda of important regulatory issues that world leaders and executives from different sectors debated over three days.

Living in a world of digital opportunities

Trusting the digital world	The drivers of the digital transformation	Collaborative regulation in a digital ecosystem: New regulatory paradigms
Reliability of networks and devices for digital services	Creating a world of opportunities	Affordable access to ICTs in a collaborative economy
Roaming in the digital world	Emerging technologies as enablers of socio- economic development	Best practice guidelines

... to regulate the new digital economy

All that, and more! See the GSR-17 website.

(GSR-17 Pre-event)

44 As regulators, there are opportunities for building and ensuring trust in a system through prudent regulation.

The Honourable Kevin Peter Turnquest

Deputy Prime Minister and Minister of Finance, The Bahamas

G Security is key in building confidence in the use of information and communication technologies. **55**

Brahima Sanou

Director, ITU Telecommunication Development Bureau



(Speaking at the GSR-17 thematic pre-event: Global Dialogue on Digital Financial Inclusion)

Digital Financial Services – A focus on security

he Global Symposium for Regulators (GSR-17) began with a thematic preevent, the **Global Dialogue on Digital Financial Inclusion**, which placed a special focus on the security of digital financial services. The event was opened by the Honourable Kevin Peter Turnquest,

Deputy Prime Minister and Minister of Finance, The Bahamas, and participants were able to share their thoughts and experiences resulting from the rapid pace of technological developments which are inevitably changing the financial ecosystem.

Protecting e-transactions

In the first session on **Technologies that Protect e-Transactions**, participants explored how to protect new financial technologies such as digital currencies and wallets, distributed ledger technologies and blockchain, as well as the role of regulations in this dynamic environment, touching on issues such as artificial intelligence, digital authentication, and cyber threat intelligence for the financial sector, for example. The session was moderated by Ram Sewak Sharma, Chairman of India's Telecom Regulatory Authority (TRAI).

What are the organizations out there that most probably have more experience than we have at addressing cybersecurity issues?

Giovanni King, Chief Operating Officer, Directorate General for Energy, Telecommunications and Competition, Curacao



Regulators get together

Two invitation only meetings took place.

At the Regulatory Associations (RA) meeting, more than 60 participants from 11 associations discussed the role of regional and international organizations in achieving affordable access to information and communication technologies (ICTs), addressing in particular universal access and service strategies in a collaborative regulatory environment, and international mobile roaming.

The Chief Regulatory Officers (CRO) meeting, chaired by Bocar Ba, CEO of the Samena Telecommunications Council, brought together senior industry executives to share experiences and exchange ideas on how to strengthen the private sector's involvement and engagement in global, regional and national initiatives and to identify mechanisms to better foster an enabling environment for future development of the sector. ■

Private-sector involvement

A Private Sector Chief Regulatory Officers (CRO) Working Group on Digital Financial Conclusion, chaired by Mastercard's Sue Kelsey, advanced valuable work on digital financial services and included a discussion on how the private sector can help create the enabling environment necessary for investment and innovation to foster digital opportunities for all. 🗖

Ensuring reliability, security and trust in digital financial services

The second session focused on collective responsibility for Ensuring Reliability, Security and Trust in Digital Financial Services. Panellists explored the risks facing digital financial solutions, how to gain and maintain trust, and the measures needed from operators, payment platforms, service providers, and regulators. It also discussed responsibility for education and awareness raising, what we can learn from other critical infrastructure sectors, and how far a collaborative approach can take us. The session was moderated by Randol Dorsett, Chairman of the Utilities Regulation and Competition Authority (URCA), The Bahamas.

f Those who regulate the banking side need to have an understanding with the telecom regulators.

Diéméléou Bile, Director General, ARTCI, Côte d'Ivoire

How would you deal with a cyber-attack?

The highlight of the pre-event programme was an interactive simulated cyber-attack against the financial sector led by Marco Gercke, Director of Cybercrime Research, with participants challenged to identify what course of action to take to respond to the attack.

ITUNEWS



Forging paths to 5G

The pre-event programme included an information session by ITU on the IMT-2020 (5G) technology and network configuration.

See the recently published ITU News Magazine "Forging paths to 5G". Also read about ITU's 5G workshop and demo day held at ITU headquarters, in Geneva, Switzerland, on 11 July.

Pre-event video insights

Thought leaders from different sectors, including leaders from the financial sector, shared their insights with us on digital financial inclusion and the security of digital financial services.



Go to the GSR-17 YouTube playlist to view all videos.

The SDGs need a boost.

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- Share your successes globally
- Use our communications tools



fast forward together **#ICT4SDG**



The Bahamas welcomes world ICT leaders to GSR-17





Opening Ceremony

Brahima Sanou, Director, ITU Telecommunication Development Bureau; Dr The Honourable Hubert A. Minnis, Prime Minister, the Commonwealth of The Bahamas; and Houlin Zhao, ITU Secretary-General



See the GSR-17 highlights video





Randol Dorsett, Chairman of Utilities Regulation and Competition Authority (URCA), the Commonwealth of The Bahamas



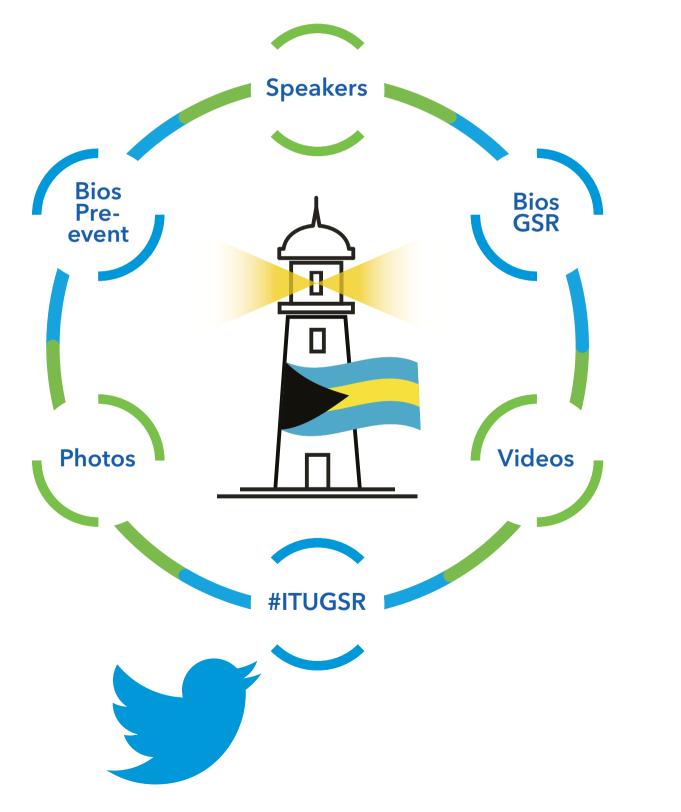
Senator the Honourable Carl Wilshire Bethel, Q.C., Attorney General and Minister of Legal Affairs, the Commonwealth of The Bahamas



Stephen Bereaux, Chief Executive Officer, Utilities Regulation and Competition Authority (URCA), the Commonwealth of The Bahamas, and GSR-17 Chair

ITU News PLUS+ GSR-17

Click to see GSR-17 at a glance



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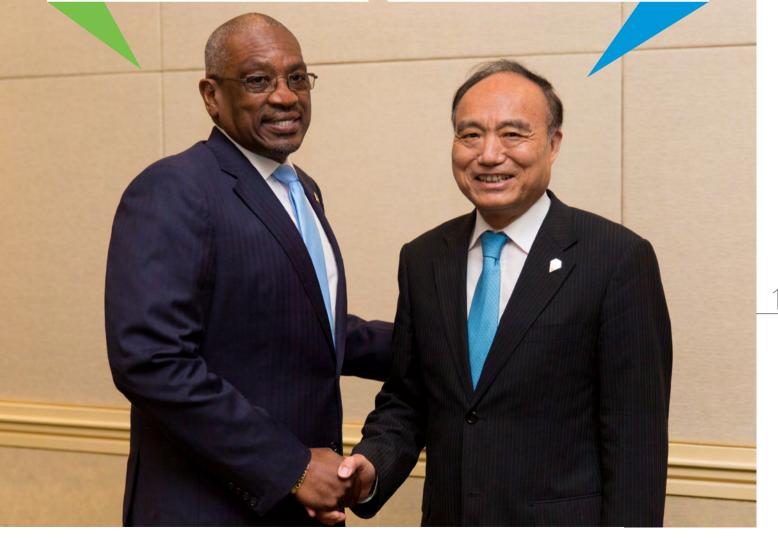
44 I imagine a day when Bahamians living on every major island can perform certain health assessments from his or her home from a medical professional in the capital, via a smart device and an Internet connection.

> Dr The Honourable Hubert A. Minnis Prime Minister, The Bahamas

L ICTs are truly transforming people's lives around the world, offering many opportunities in various sectors such as health, education, agriculture, finance and public governance.

Houlin Zhao

ITU Secretary-General



A connected Bahamas is a Bahamas where every resident within our shores is able to engage with their social networks, enjoy media and entertainment content, do their jobs or run their businesses, and to access government services quickly, easily, and with confidence.

Senator The Honourable Carl Wilshire Bethel, Q.C.

Attorney General and Minister of Legal Affairs, The Bahamas **Solution** The regulators among you will know that GSR-18's consultation process has already begun and that regulators have begun to identify and recommend innovative and collaborative policy, regulatory and business measures to lift barriers and achieve affordable access to the digital world.

Randol Dorsett

Randol Dorsett, Chairman of Utilities Regulation and Competition Authority (URCA), The Bahamas

Digital opportunities – The discussion

he Global Symposium for Regulators (GSR-17) welcomed around 400 highlevel international policy-makers and executives from the world's information and communication technology (ICT) regulatory authorities and private sector entities.

GSR is the only global gathering of telecommunications regulators.

Drivers of digital transformation – Leaders debate

In day one's high-level **Leadership debate**, ITU's Kemal Huseinovic introduced some of the key drivers of the digital transformation to be discussed: Big Data, Internet of Things, blockchain, machine learning, and artificial intelligence, that will most likely disrupt and transform existing social, political, and economic norms, bringing opportunities and challenges for everyone, everywhere.

Listen to the opening remarks at GSR-17



Brahima Sanou, Director, ITU Telecommunication Development Bureau



Houlin Zhao, ITU Secretary-General



Dr The Honourable Hubert Minnis, Prime Minister of The Bahamas

The Leadearship debate was moderated by Brahima Sanou, Director of ITU's Telecommunication Development Bureau, and the panel speakers were from ITU, the Bahamas URCA, Digicel, Bitt Inc., and Harvard University.

An important question for discussion was the role of the regulator in a world of digital transformation and new technologies. Stephen Bereaux, CEO of the Bahamas URCA highlighted the need, when speaking about developing or transforming our societies into digital societies, to "figure out new paradigms, new ways to work together across disciplines, so that we are able to react to and address the challenges of tomorrow."

Denis O'Brien, Chairman of Digicel Group, called for regulators to address the unregulated nature of the Internet. On making particular reference to the developing world's needs, he said that "Apart from regulation, in order to bring broadband to the next 4 billion people, we need a new deal where everybody who builds a network will share in the revenues of the network..."



Barriers to financial inclusion

The first day ended with a lightning session supported by the Association of all Satellite Operators in Europe (ESOA), which focused on barriers to financial inclusion. ■ It's not only about constraining behaviour, but regulation, especially in this area, can have a very important enabling and supporting function, particularly when we try to foster the Sustainable Development Goals.

Urs Gasser, Executive Director, Berkman Klein Center for Internet and Society at Harvard University

Robert Pepper of Facebook spoke of a whole new business model, explaining how in his view content and application companies are actually become symbiotic partners.

Oliver Gale, co-founder and President, Bitt Inc., saw decentralization and the disruption of multiple industries as part of the convergence of technology. "It's part of human progression," he said, and stressed the importance of the need to facilitate innovation.

Professor Urs Gasser, Executive Director, Berkman Klein Center for Internet and Society at Harvard University, shifted the focus of the debate from the business side to the opportunities. Gasser also expressed his concern about, what artificial intelligence (AI) has to offer and how we can use the next generation of technologies to enhance social good, and to work in the public interest, which he said was "a tremendous shared responsibility and challenge."

Gasser was of the view that AI is not a single technology to be governed by one single approach, saying that we need to be more contextual, and clear that "these technologies, as they are applied, are not evolving in a silo, because many of the application areas, take the financial industry, take health, take transportation, are highly regulated industries, so it's not that AI-based technologies are now adopted in a regulatory and legal vacuum."

Apart from regulation, in order to bring broadband to the next 4 billion people, we need a new deal where everybody who builds a network will share in the revenues of the network...

Denis O'Brien, Chairman of Digicel Group

(Speaking at the GSR-17 Leadership debate – Drivers of digital transformation)



impressive about this is that rapid change can happen, and it can happen quickly, and it's a combination of technology, business models, and the regulatory environment that enables that.

Yael Maguire, Connectivity Innovator, Facebook

(Setting the scene for the GSR-17 affordable access debate)

Old regulatory solutions have lost relevance and new fit for purpose ones are urgently needed. The role of the regulator is itself changing, expanding into new areas.

> Dalsie Green Baniala, CEO/ Regulator, Telecommunications and Radiocommunications Regulator's Office, Vanuatu

> (Speaking at the GSR-17 session on Evidence-Based Decision Making: Tools for Regulators)

Every possible technology must be used to ensure that we are able to provide connectivity which is reliable, which is robust, which is affordable to our people.

Ram Sewak Sharma, Telecom Regulatory Authority of India (TRAI)

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(Moderating the GSR-17 session on Affordable Access to ICTs in a Collaborative Economy)

Brahima Sanou, Director of ITU's Telecommunication Development Bureau, concluded the first debate, which had set the scene for three days of collaborative dialogue. He thanked all participants, adding: "As we heard, understanding the different perspectives and the impact of digital transformation on societies will only help us to make informed decisions when we need to."

Creating a world of opportunities

On day two, under the theme Creating a World of Opportunities, Yael Maguire, a connectivity innovator leading Facebook's connectivity lab, working on non-traditional forms of connectivity solutions to provide connectivity to rural communities, gave a presentation about what he's learning in terms of connectivity and challenges. His inspiring talk perfectly set the scene for the following session of the day – a discussion on affordable access.

Affordable access to ICTs in a collaborative economy

The session on Affordable Access to ICTs in a Collaborative Economy focused particularly on the technologies to achieve affordable access to ICTs and helping to achieve the United Nations Sustainable Development Goals. Moderator Ram Sewak Sharma, Chairman of the Telecom Regulatory Authority of India (TRAI), began the session by reminding us that out of a global population of 7 billion, in terms of data, only 3 billion are connected, and that connectivity is not a luxury, but a necessity, particularly in the developing world.

Continuing the debate...

A session on Collaborative Regulation in a Digital Ecosystem: New Regulatory Paradigms, examined issues such as the social and economic Impact of a digital connected society; how to anticipate the impact of Artificial Intelligence (AI) and digitization; the regulatory paradigm shift: collaborative regulation; and trust and privacy in a connected digitized world. The session also dealt with regulatory approaches to unlock the potential of smart societies and participants attempted to answer questions such as: What policies are shaping up the Ecosystem and Digital Economy? Will regulation by design be the next step?

In a session on Reliability of Networks and Devices for Digital Services, participants examined: What policy and regulatory measures are needed to maintain trust and reliability of networks? Can technology solutions strengthen trust and reliability on networks? What can regulators do to ensure quality of service in the provision of communications services in a digital environment? Is there a need to rethink Quality-of-Service (QoS) approaches? What are the existing regulatory tools to enforce QoS?

In a session on Roaming in the Digital World participants discussed global strategic guidelines on international mobile roaming; roaming in the era of 5G, Internet-of-Things (IoT), clouds and the industrial Internet. They asked themselves: What next?

When considering voice to data to things and the role of over-the-top service providers (OSPs). They also discussed roaming issues in an IoT environment, where things are moving across borders.

Another session, on Evidence Based Decision Making: Tools for Regulators, covered the regulatory outlook report; the ICT regulatory tracker (tracking the evolution of regulation); and ICT Indicators for measuring the Information Society.

> The panel speakers were from the Swedish Post and Telecom Authority (PTS), the United States Federal Communications Commission (FCC), Orange, the Inter-American Association of Telecom Operators (ASIET) and SpaceX.

FCC's Tom Sullivan shared his insights from the US perspective: "Technology has driven down costs of deployments for both mobile but also satellite and other services, so as regulators we're at a cusp of seeing so many new innovative technologies and promises being able to come to fruition, and what we're doing at the FCC in a very broad sense is making sure that our regulatory framework is not impeding that happening." He urged regulators to think carefully when considering putting in place regulatory frameworks for new and developing high-speed technologies which provide connectivity to citizens.

Nezih Dincbudak, Orange's Vice President of Regulatory Affairs for Middle East and Africa, explained why, in his opinion, in other regions, such as in Africa and the Middle East, light touch regulation, typical of the United States and Europe, was likely not the best option. He went on to acknowledge the business model shift from voice to data, and its impact on the debate, as well as urging regulators and policy-makers to think about how to make it easier to connect rural areas. He concluded with "We're not requesting regulation of other players, not necessarily. We are asking for less regulation of existing players in order to put everybody on the same level".

Pablo Bello, Executive Director of the Inter American Association of Telecom operators called for a new 21st century agenda which favours infrastructure rollout, innovation, and technological development. "What is crucial is for the regulator to understand companies. It's crucial for companies to understand the regulator".

Patricia Cooper, Vice President of Satellite Government Afffairs, SpaceX, spoke about countries being at different levels of broadband access. She explained SpaceX's proposed satellite constellation, and also said that there is "definitely more work for the regulator to try and piece together and distinguish among the problems that are facing this larger question of broadband access."

A key takeaway from the discussion was the understanding that different technologies work in different countries and regions – for instance, while Sweden's long-term development of fibreto-the home works well for Sweden – an alternative solution might work better for India.

See the full **GSR-17 programme**. See the full **list of speakers.**

Video insights

Thought leaders shared their insights with us on the various topics and sessions discussed at the symposium.

ff ... the only way you can overcome those challenges, is if you have collaborative regulatory initiatives -GSR17 global wide - like what we have here at GSR. Filipe Baptista Secretary-General, ARCTEL-CPLP **1** ... also cross-sector partnership is really going to be one of the drivers of making this a success. **Isabelle Mauro** Head of Digital Communications Industry, WEF **Our vision is to provide the** support and infrastructure so that GSR17 banks and people and nations can be connected. **Oliver Gale** Co-Founder and President Bitt inc. GSR What a great platform this is to understand what are the right now needs of these markets. Suzanne Malloy Representing ESOA

Go to the GSR-17 YouTube playlist to view all videos.

Go to the GSR-17 YouTube playlist to view all videos.

I came out of the Central Bank from a regulatory framework and regulators tend to think of themselves as separate and apart from industry.



<u>Dr Nicola</u> Virgill-Rolle

Director of Economic Development and Planning Unit, Prime Minister's Office, The Bahamas

We are moving into a new era as a world where ICTs are really taking us into areas that we never really anticipated.



<u>Stephen</u> <u>Bereaux</u>

Chief Executive Officer, URCA, The Bahamas

The CRO [Chief Regulatory Officers] group is a truly multistakeholder platform.



<u>Bocar Ba</u>

Chair, CRO, and Chief Executive Officer, Samena Telecoms Council



(Outcomes)

The Global ICT Regulatory Outlook 2017 report is a key resource on smart, inclusive and forwardlooking ICT regulation.

Houlin Zhao ITU Secretary-General

A unique story

change

about regulatory

The Global ICT Regulatory Outlook 2017 is unique in that it summarizes information that is relevant to regulatory bodies, operators, service providers and consumers worldwide.

> Brahima Sanou Director, ITU Telecommunication Development Bureau

he first-ever global report tracking market and regulatory trends in the ICT sector and their implications across economies, **Global ICT Regulatory Outlook 2017**, was launched at GSR-17.

This ICT industry outlook report tracks how the global digital economy has been shaping up over the past ten years – what impact regulation has had – and what the digital future might look like in the coming years. It highlights seven important global ICT trends, seven regulatory trends, and ends with seven predictions on where regulation will go in the coming months and years.

See the Executive summary

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GLOBALICT REGULATORY

(Outcomes)

46 The GSR is an excellent forum for this dialogue and these guidelines represent the outcome of the dialogue.

Stephen Bereaux, Chief Executive Officer, Utilities Regulation and Competition Authority (URCA), The Bahamas, and GSR-17 Chair



See the GSR-17 Best Practice Guidelines

Best Practice Guidelines

oday, despite the rapid deployment and expansion of ICT networks worldwide, mobile cellular coverage of 95% of the world's population, decline in prices, in particular mobile broadband prices to represent an average of 5.5% of gross national income per capita in 2015, affordability of accessing the digital world remains an issue for many. Governments and regulators, collaborating with stakeholders from the telecommunication and ICT sectors, have a key role to play in setting fitfor-purpose policies and regulatory measures to create an enabling environment for innovation and investment. Access to ICTs and digital societies can be affordable and sustainable so that everyone can benefit from the opportunities of the digital world.

As part of the **GSR-17 consultation process**, regulators were invited to identify innovative and collaborative policy, regulatory and business measures needed to lift the barriers and achieve affordable access to the digital world in the following areas:

- Infrastructure and connectivity
- Consumer access
- Market and business opportunities
- Funding and financing.

The best practice regulatory guidelines were presented and adopted on the last day of GSR-17. Contributions were coordinated by Stephen Bereaux, Chief Executive Officer, Utilities Regulation and Competition Authority (URCA), The Bahamas.

(Looking ahead)

ITU prepares for WTDC-17

This year's World Telecommunication Development Conference (**WTDC-17**) will take place in Argentina from 9 to 20 October under the theme: "ICT for Sustainable Development Goals" – <u>ICT4SDGs</u>.

WTDC-17 will set the agenda for telecommunication and information and communication technology (ICT) development over the next four years – the Buenos Aires Action Plan – which will help shape the future of how ICTs contribute to social and economic development.

The Conference is the culmination of six Regional Preparatory Meetings (RPMs) held around the world. All RPMs gave careful consideration to the results of the implementation of the Dubai Action Plan since 2014 and mainly focused their discussions on the priority issues, topics and questions and regional initiatives to be included in the Buenos Aires Action Plan.



25th Anniversary of the ITU Telecommunication Development Sector

This year the ITU Telecommunication Development Sector (ITU-D) celebrates its 25th Anniversary.

ITU-D

1992

CELEBRATING 25YEARS OF ACHIEVEMENTS

ITU-D was established in 1992 by the Additional Plenipotentiary Conference held in Geneva, Switzerland, and over the past 25 years the Sector has contributed immensely to the rapid growth and global expansion of telecommunication/ ICT networks and services – helping improve citizens' access to government services, health care, education, agricultural services, financial and banking services, and market information.

A Ministerial Roundtable and a Gala Dinner will be held at WTDC-17 on 11 October to mark the Anniversary of ITU-D.

Read more about the 25th Anniversary.

How about becoming a sponsor?

Global Symposium for Regulators 2018

Geneva, Switzerland

Join us in Geneva for GSR-18 from 9 to 12 July!

Contact us to find out more.

ITU invites Heads of national telecom and ICT regulatory authorities, policy-makers, industry leaders, and other key stakeholders from the region and across the globe to join the event.



Stay informed

The weekly ITU Newsletter keeps you informed with:

Key ICT trends worldwide Insights from ICT Thought Leaders The latest on ITU events and initiatives

