ITUGSR
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GSR-18 BEST PRACTICE GUIDELINES
ON NEW REGULATORY FRONTIERS TO ACHIEVE DIGITAL TRANSFORMATION

Today more than ever, policy makers and regulators need to keep pace with digital transformation sweeping across the sectors and impacting all aspects of our daily lives as consumers, businesses and citizens.

Proactive, collaborative and dynamic policy and regulatory approaches together with innovative and sustainable business and investment models are required to create the conditions for this digital transformation to achieve its full potential. At the same time, there is a continuing need for trusted, secure and reliable ICT infrastructure, as well as for affordable access to and delivery of digital services.

I am confident that these Best Practice Guidelines will give regulators the necessary tools to address these new horizons.

Mr Brahima Sanou,
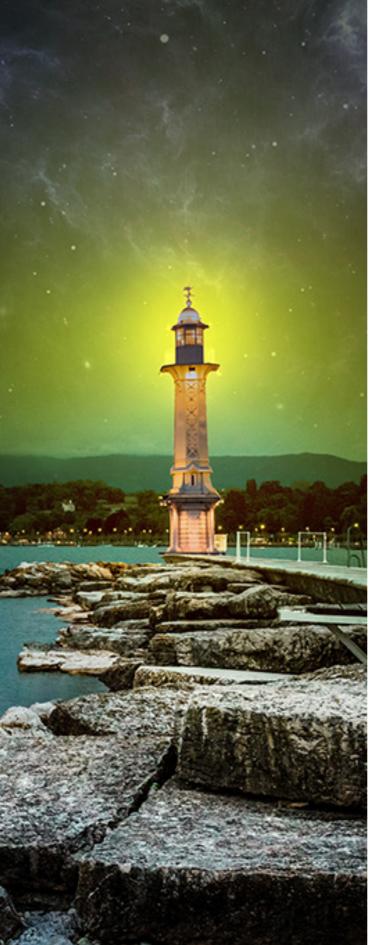*Director, Telecommunication*
Development Bureau (BDT), ITU

Today, the world seems to be preparing for a new revolution. The interconnectivity revolution. The revolution of a new kind of intelligence.

Everything is about smart cities, Artificial Intelligence and the Internet of Things. These concepts are about to transform our lives and, maybe paradoxically, to bring us closer to one another. All the objects in our everyday life, from personal car to medical devices, will be connected to the Internet, in a huge network of machine-to-machine, person-to-machine and person-to-person communication.

We need to make sure that we are prepared for the challenges that this technological move will raise. As regulators, we need to ensure that we will all fully benefit from the potential of these new technologies by setting an up-to-date, reliable and predictable regulatory framework, that will enable the digital transformation of our society.

Mr Sorin Grindeanu,
President, ANCOM,
Romania

Digitization is increasingly and fundamentally changing societies and economies and disrupting many sectors in what has been termed the 4th Industrial Revolution. Meanwhile, ICT regulation has evolved globally over the past ten years and has experienced steady transformation. As regulators, we need to keep pace with advances in technology, address the new regulatory frontiers and create the foundation upon which digital transformation can achieve its full potential. Being prepared for digital transformation and emerging technologies such as Artificial Intelligence (AI), the Internet of Things (IoT), Machine to Machine communications (M2M) and 5G is fundamental.

We, the regulators participating in the 2018 Global Symposium for Regulators, recognize that, flexible and innovative policy and regulatory approaches can support and incentivize digital transformation. The best practices in this regard would allow us to respond to the changing landscape and address the continuing need for secure and reliable ICT infrastructure, affordable access to and delivery of digital services, as well as protect consumers and maintain trust in ICTs.

We have therefore identified and endorsed these regulatory best practice guidelines on new regulatory frontiers to achieve digital transformation.

I. Fostering the potential of emerging technologies for digital transformation

Advances in technology are creating new social phenomena and business models that impact every aspect of our personal and professional lives – and which challenge regulatory paradigms. M2M, cloud computing, 5G, AI and IoT are all bringing further profound change. Recognizing the potential of emerging technologies and the impact that policy and regulatory frameworks can have on their success, regulators should encourage a regulatory paradigm pushing frontiers and enabling the digital transformation. We therefore call for:

- implementing an agile framework for an innovative digital ecosystem through **flexible light-touch, multi-sectoral, forward-looking, neutral and transparent policy and regulatory approaches**;

- encouraging policy and regulatory **measures to facilitate deployment and use of emerging technologies for affordable digital infrastructure and services**, including in the area of infrastructure sharing, interconnectivity, quality of service and effective use of spectrum;

- addressing the **enabling environment for emerging technologies** including, as appropriate and within our respective mandates, issues such as intellectual property rights (IPR), artificial intelligence (AI), investment, job creation and cybersecurity, technological neutrality;

- **addressing the commercial and investment case for 5G**, and the enabling regulatory and policy measures related thereto, recognizing that 5G is expected to contribute to the further evolution of digital economies, improving economic growth, enhancing citizens' life experiences and creating new business opportunities;

- reiterating that **access to scarce resources** (e.g., frequencies, telephone numbers, IP addresses) is essential for offering effective and innovative communication services; in addition, keeping sufficient flexibility of rules and procedures is important to allow innovation, so that new uses and new technologies can be conceived, designed, tested and deployed;

- integrating **ICT intensive research in our activities** through close collaboration and partnership with academia and research institutions;

- creating **innovation spaces** to promote opportunities for youth, foster the development of innovative ICT solutions, and nurture a community of entrepreneurs and mentors;

- recognizing that emerging technologies also require measures to continue **building the digital skills of people** not only as consumers but also as citizens;

- defining the appropriate response mechanisms to threats and cyberattacks including early warning service and the establishment of **cybersecurity emergency response teams (CERT)** to enhance consumer confidence in the digital economy while protecting already existing investments (Networks, Systems, Applications and content).

We further recall and reaffirm the importance of such measures and incentives, as iterated in GSR best practice guidelines from previous years.

II. Business and investment models to support digital transformation

An investment-friendly policy and regulatory framework is needed to support digital transformation which permeates all industries and impacts markets in all sectors.

We reiterate the need to design a long-term policy view to **ensure the predictability and regulatory certainty** that is needed to **promote business and investment** models and deliver connectivity for all use cases. Regulators and policy makers need therefore to work together proactively to:

- promote policies that encourage both **innovation and effective competition among sector players** in the ecosystem, and that also support the **protection of consumers**;

- enforce or collaborate in the enforcement of competition law to ensure that service providers comply with all the rules of fair and healthy competition;

- consider **pro-investment economic reforms and business approaches for the different players in the value chain** to help promote investment in infrastructure and increase business activities across industries and sectors, thus fostering greater demand for and use of ICTs;

- **support the foundations of the digital ecosystem**, addressing principles of **cross-sectoral collaboration**, as well as **competition, convergence and administrative simplification**; furthermore, strive to address market access across the value chain, foster innovative and sustainable business and investment models, and identify economic incentives to support digital transformation;

- **support small and medium-sized enterprises (SMEs) by reducing barriers to entry** related to licensing regimes and fiscal and taxation policies, while supporting an enabling environment for SME development through protection of Intellectual Property Rights (IPRs) and economic incentives that are essential for business development;

- raise awareness that **digital transformation is creating many benefits to society and its adoption is improving productivity and competition**, and that this must not be seen as a threat to job security;

- promote uptake and effective use of digital services across the country, particularly in **rural and remote areas**, through incentives that are attractive to both the public and private sectors.

- create the adequate regulatory arrangements and connectivity measures and programmes **to foster infrastructure and spectrum sharing practices, encourage national coverage and enhanced performance of the networks** to enable end-users to use digital technologies and services with fast and reliable access, taking into consideration wireless connectivity, potential incompatibilities of wireless systems, and facilities for the deployment of IoT networks;

- **foster fair, non-discriminatory and affordable tariffs**, while maintaining healthy competition between network providers;

- encourage the development of **big data technologies with regards to storage and transmission of information** in large public/national data centres to facilitate access to data to promote the development

of new digital services and applications, and ensure fair and equitable treatment of telecommunication/ICT market players and OTT providers.

III. Policy and regulatory approaches for continued innovation and progress

Amidst the technology swirl of the last decade, new technologies, new players and new business models are rapidly coming of age. Proactive measures and exchanges with all players in the value chain in the sector (start-ups, competition hubs, manufacturers, operators, as well as users) are key for boosting the emerging digital ecosystem. ICT policy and regulatory frameworks need to be up-to-date, flexible, incentive-based and market-driven to support digital transformation across sectors and across geographical regions. Next-generation collaborative ICT regulatory measures and tools are the new frontier for regulators and policy makers as they work towards maximizing the opportunity afforded by the digital transformation.

We believe that clear consideration is needed to ensure that the policy and regulatory approaches adopted are not a barrier to future innovation and progress while protecting consumers and extending connectivity to those who remain unconnected. To this end, we the regulators participating in the 2018 Global Symposium for Regulators, believe that we need to:

- consider putting in place **innovative, out-of-the-box measures** such as:

  » regulatory sandboxes for enterprises wishing to test an emerging technology or innovative service without being bound by all the regulations that would normally apply;

  » "start-up and experiment" interfaces to support start-ups, enterprises and communities in their experimental initiatives;

  » 5G pilot projects to obtain initial feedback and facilitate reflection and design of future spectrum allocations while stimulating the take-up of services, building specific use cases and assessing future challenges related to emerging technologies under real-life conditions;

- promote further **public participation and consultation in the regulatory process** through *regulation by data*, that is based on information and observations of digital stakeholders and users, providing citizens and stakeholders with the most detailed and transparent information, and allowing consultation and participation in the regulatory decision-making process to complement the regulator's traditional tools;

- establish **effective mechanisms for cooperation** across the sectors to promote the development of cross-cutting services such as e-commerce, e-banking, and e-health, including with consumer protection authorities, service providers and other relevant bodies at the national, regional and international levels;

- consider, as appropriate and within our mandate, the necessary frameworks to ensure **privacy and security of government, business and consumer data** so that stakeholders are adequately informed about potential security and privacy challenges they may face with online services, and have access to timely and accurate information regarding the services and applications they use (including reliability, speed, quality of service and data traffic management).

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