GSR11 BEST PRACTICE GUIDELINES ON REGULATORY APPROACHES TO ADVANCE THE DEPLOYMENT OF BROADBAND, ENCOURAGE INNOVATION AND ENABLE DIGITAL INCLUSION FOR ALL*

The rapid growth of the digital economy presents huge opportunities for economic and social development, creating global markets for applications and services, improving productive capacity, reducing the cost of doing business, and unleashing creativity and innovation. The growth of broadband networks will accelerate this trend, offering the opportunity to leapfrog time and distance limitations and providing greater bandwidth across the globe.

Similarly, these networks have and will continue to provide new ways for all members of society, regardless of gender and including persons with disabilities, to obtain information that will promote greater education, employment, health, safety and security, and for economic gain. In order to reach the global potential of broadband, however, regulators and policy makers will need to embrace a global vision of these collective benefits and balance regulatory certainty with flexibility and liberalization on a global scale. The technology exists right now to create a profusion of interconnected broadband networks, with a vibrant and competitive market to access them. In an era in which broadband is increasingly considered the right of every citizen, smart regulation will continue to evolve toward greater openness and dynamism, while mitigating the associated challenges and threats.

We, the regulators participating in the 2011 Global Symposium for Regulators, recognize that there is no single, comprehensive blueprint for best practice, but agree that learning from countries' experiences is possible. Therefore, we have identified and endorsed these regulatory best practice guidelines to advance the deployment of broadband, encourage innovation and enable digital inclusion for all.

I. Funding mechanisms for promoting the deployment of broadband infrastructure

1) Leveraging partnerships

We recognize that while the private sector will play the central role in broadband development, supportive policy and good governance are essential for broadband deployment and take-up to succeed. When such deployments do not offer sufficient returns for private investment, public funds can be mobilized through public-private partnerships (PPP). Where public funds are committed to broadband infrastructure investment, or in the case of essential facilities, regulators may employ open access arrangements (i.e., unbundling) to maximize the economic benefits across as broad a base of users and suppliers as possible. The sale or lease of such infrastructure facilities should be implemented in a transparent and non-discriminatory manner, so that it does not distort the associated markets.

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* The Guidelines are based on contributions from Algeria, Belarus, Colombia, Côte d'Ivoire, Ecuador, Egypt, Jordan, Lebanon, Malawi, Paraguay, Peru, Portugal, Rwanda, Switzerland, Thailand, and the United States.

When combined with a regulatory framework that eliminates barriers to new entrants (both domestic and international), market-based schemes are the most effective way to promote the deployment of backbone and access networks alike. When such mechanisms are supplemented with access to the infrastructure of other industries - electricity, water supply and transportation - the costs associated with infrastructure deployment can be reduced, generating greater incentives for private investment.

2) Modernizing universal service programmes and funds

We believe that including broadband internet access in the universal service definition can be a first step to bridging the looming digital divide. In addition, a national universal service programme that incorporates a framework to ensure blanket access to essential broadband services can be chosen. The universal service needs to be defined in a technologically neutral manner, i.e., by defining services rather than networks or technologies.

Regulators and policy makers may consider transforming existing universal service programmes into programmes for digital inclusion that support broadband services for all citizens. Universal service programmes could be financed by revenues raised from the activities of a wide range of market players as well as from alternative sources. Smart subsidies can be used to avoid distorting the market while furthering universal service goals.

Where a Universal Access/Service Fund (UASF) exists, it could be modernized:

- To serve as a facilitator of the market, piloting innovative rural services and applications, creating demand for advanced ICT connectivity and services (i.e., through financing broadband access for schools and hospitals, and direct subsidies to users); and/or
- To serve as a funding mechanism for broadband networks into rural and high-cost areas through support both at the retail end (e.g., shared access), as well as at the wholesale end (e.g., through subsidizing intermediary network facilities such as backbones, wireless towers and other passive infrastructure).

II. Fostering private investment in broadband through incentive regulation

Policy makers and regulators have several options to provide incentives for the private sector to invest in the ICT sector such as by adopting enabling policies, simplifying licensing regimes, making available more spectrum, reducing regulatory obligations, and offering tax incentives.

1) Providing overall direction through a national policy

We believe that governments need to enact a consistent and overarching ICT and/or broadband policy. This policy must clarify the government's commitment to foster broadband development across all sectors and through liberalizing the broadband market and empowering the regulator to move forward with a liberalization plan.

We are mindful that policy makers with the support of regulators need to review existing legal and regulatory frameworks in order to reduce barriers that hinder broadband roll-out and usage, i.e., revising key laws such as the ICT law, e-transaction law, intellectual property law and law on the protection of personal information.

Furthermore, there is an urgent need to recognize the challenge of climate change, including e-waste, as a priority in the political agenda of countries that have not yet done so in order to enable allocation of resources to strengthen the supervision of regulatory standards for e-waste management.

We recognize that it is best practice to use inclusive and wide-ranging public consultations when drafting national plans, policies and strategies for the development of the ICT sector in general or the deployment and take up of broadband in particular to ensure that the monumental investments

ahead are based on the collective decisions of government, industry, and society. The establishment of coordinating bodies, such as a national broadband or digital inclusion commission or council, encompassing the public authorities, investors and users as well as wider range of stakeholders can serve as a platform for developing a common understanding, vision and strategy. Another way of nursing a positive relationship with all stakeholders is the creation of enabling policy incubators to crowd-source ideas and brainstorm on out-of-the-box solutions for taking broadband to the next level.

2) Rationalizing licensing regimes

In order to facilitate entry in the broadband market and increase competition at all network layers, licensing regulation can be simplified and a unified licensing framework can be introduced with all services unified under a single licence or concession.

In order to enable ICT operators to start their activities rapidly, regulators need to consider reducing licensing fees as well as the administrative and formal requirements to enter the market and provide service. Provisional licences may be delivered free of charge (or only covering administrative costs) during a renewable trial period ahead of the delivery of the final licences.

3) Making spectrum available for mobile broadband

With the evolution of the demand for more powerful, ubiquitous and seamless broadband services, the distribution of spectrum for broadband wireless services becomes a cornerstone of future growth of the digital economy. While considering national goals, economic realities and market pressures, regulators and policy makers need to address a host of issues in order to ensure spectrum is used in the most efficient manner.

With this regard, we recognize that an incentive-based, market-driven approach to making more spectrum available for mobile broadband services is preferable, enabling inter-platform competition and spurring innovation. A wide range of new-generation spectrum auctions could be designed to extend access to broadband in unserved and underserved areas, such as voluntary incentive auctions, reverse auctions and offering all broadband spectrum bands in a single auction . Furthermore, allowing flexible use of spectrum, including spectrum refarming and secondary markets for spectrum, is key to ensuring that with market maturity and evolution spectrum moves to more productive uses, including mobile broadband. Leveraging on the “digital dividend” spectrum, the footprint of mobile broadband access can be extended while TV “white spaces” could be made available for unlicensed use enabling more powerful broadband services.

4) Removing barriers to broadband build-out and access to broadband networks

We recognize that countries with targeted policies and regulations to remove barriers to the build-out of broadband infrastructure, including those supported by government-led initiatives to stimulate demand, will be in the vanguard of the digital economy. Reducing regulatory burdens and employing the least degree of regulatory intervention is essential to lower the cost of laying infrastructure, providing services to end users and stimulating new applications and digital content. Regulatory imperatives embedded in formal instruments that cannot be revised in a timely manner to address evolving circumstances will inhibit broadband growth, particularly when they impact technology choice or the operational activities associated with broadband deployment and use. Expanding on the GSR Best Practice Guidelines 2008, regulators could act to:

- Facilitate the grant of the proper permissions to build-out infrastructure, especially where the access network requires rights of way f or fiber-to-the-home deployment as well as to accommodate the delivery of broadband multiple-play services;
- Adopt rules or promote policies and incentives conducive to and encouraging infrastructure sharing, particularly involving passive sharing of towers, ducts and other support facilities;

- Encourage the establishment of national Internet Exchange Points (IXP), enabling local Internet Service Providers (ISPs) to exchange Internet traffic at the local, national or regional levels, thus lowering the cost of content delivery and optimizing bandwidth use, especially for advanced multimedia services;
- Facilitate the establishment of Virtual Landing Points (VLP) for submarine cables. The VLP and its associated international gateway could be owned and managed by an ICT operator identified through a competitive bidding process or based on a PPP model. The VLP would be required to supply bandwidth at high capacity to all licensed operators in the country under standard market best practice terms and conditions, such as open access, non-discriminatory and transparent pricing.

5) Granting tax incentives

Regulators and policy makers need to cooperate to reduce taxes on services, devices and equipment which will in turn increase penetration levels and pave the way for increased demand of broadband services.

More broadly, targeted fiscal incentives to providers of broadband networks, services and equipment, whether fixed or mobile, can be granted to stimulate a robust and competitive broadband marketplace, such as relief from certain financial levies for a certain period (i.e., spectrum fees in specific areas of interest); application of a single preferential import duty on equipment and materials; exemption from value-added tax on imported equipment and material that is manufactured or sold locally; and tax deductions for those directing resources at research and development of applications and digital content.

III. Stimulating innovation and development of applications and services

1) Nurturing the creation and adoption of applications, services and digital content

We believe that the wide diffusion of e-government and e-finance applications and services will considerably raise consumer demand for broadband. To this end, government agencies need to adopt pertinent applications and content to allow for greater participation of its citizens thus fostering the advent of a new digital culture. Many electronic applications such as e-procurement, e-payment systems, document tracking and workflow management systems can improve government business processes while increasing citizen participation in the country's socio-economic development. Applications such as e-Health, e-Agriculture, and e-Education initiatives help governments achieve critical national goals, for which it becomes indispensable to promote confidence in the use of ICTs.

We also believe that there is a role for policy makers and regulators in the broadband ecosystem to create the environment in which dynamic digital content creation, dissemination and adoption can thrive. As a first step, a thorough and forward-looking review of the regulatory framework of the ICT sector is essential to assess necessary changes to permit new and emerging services and applications, such as m-banking and social networks.

2) Spurring investment in R&D activities

Innovation is essential to the growth of the broadband economy and for ensuring the right to access, use and create digital content.

We believe that private investment in Research and Development (R&D) should be encouraged by all possible means. In addition, when resources are available, investment should be channeled to public research and development. UASF, for instance, could be used to provide partial funding for R&D activities. Furthermore, government agencies, including regulators, the private sector and non-governmental organizations can cooperate to provide incentives for the public to develop innovative digital applications and content.

We are mindful that governments can encourage innovation to address specific challenges, notably to spur the local content deployment in local languages and domain names, and establish training centres to encourage students' technological innovations. Of equal importance to the local social and economic development is the creation and maintenance of ICT innovation incubators and business development centres to provide hi-tech hosting, training and advice to small and medium enterprises and offer funds and other assistance to start-up ICT companies.

3) Enforcing Intellectual Property Rights

We recognize that it is essential to protect intellectual property, as this empowers researchers and inventors to lead the way to a smart and innovative digital economy. Innovation can be encouraged through intellectual property regimes that balance monopoly use of inventions with building a rich public domain of intellectual materials.

In addition, we believe that ensuring there is a balanced, proportionate and robust mechanism for content owners to address copyright infringement endows a stable and solid basis for innovation and creation. Designing rules and procedures for copyright enforcement while harboring consumer privacy fully means finding a delicate balance that both stimulates and protects all the different stakeholders in the digital economy.

IV. Expanding digital literacy

We recognize that digital literacy has become an essential personal and professional asset as the global economy evolves into one that is open, competitive and digital. Countries with high levels of digital literacy are more innovative and productive and are capturing a greater share of the world's trade, investment and jobs.

We are mindful that regulators and policy makers have a role to play in promoting a first-class training system in all countries to provide creative human resources. It is crucial to facilitate investment in all forms of education and particularly in ICT education from early training to advanced instruction notably in the area of R&D, ICT knowledge transfer and the development of digital applications and content (in particular those related to the local culture). Sufficient and sustainable funding should be provided to universities, computer labs and other public research institutions, leveraging international partnerships when possible and advantageous.