



SESSION BACKGROUND PAPER

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Fostering an Enabling Environment *Background Paper – Panel 2*

1. BACKGROUND

The creation of an enabling environment is one of the key foundations for building a global Information Society. The World Summit on the Information Society (WSIS) recognized that “to maximize the social, economic and environmental benefits of the Information Society, governments need to create a trustworthy, transparent and non-discriminatory legal, regulatory and policy environment”.¹ Political will is needed at the highest levels of government to establish an enabling environment that will create a level playing-field for all stakeholders.

Many governments have initiated sector reforms over the last two decades, in an attempt to create more transparent and stable legal and regulatory frameworks, with an emphasis on establishing national regulatory authorities and opening up certain market segments (such as mobile voice) to greater competition. They have typically sought to attract investment and make progress toward universal access to basic telecommunication services. The telecommunication/ICT sector has been transformed by technological innovation, convergence of services, and growing competition. These changes may now require a further regulatory shift to open more market segments to competition and update licensing and spectrum management practices in order to foster growth in broadband networks and converged services. These reforms encourage increased reliance on market-based principles to create a suitable “*enabling environment*”.

Convergence of networks and services and the advent of new technologies (including Internet Protocol (IP) and broadband technologies) are phenomena with a significant impact on the enabling environment. To address these drastic changes, spur competition, extend access to ICTs to connect the unconnected and to move towards a converged ICT world, a number of countries have initiated a second wave of regulatory reforms. These reforms seek to reduce further market entry barriers, foster convergence through a technology-neutral approach and encourage innovation and access to broadband services at affordable prices for all. From the consumer’s perspective, the benefits gained from these reforms are many: greater choice, increased affordability, improved access and innovative, new services.

The pace of ICT development, including broadband take-up hinges on the policy and regulatory framework. In the current global economic environment, targeted and effective regulation has a key role to play to ensure that investment continues to drive growth in ICTs.

2. PURPOSE OF THIS PAPER

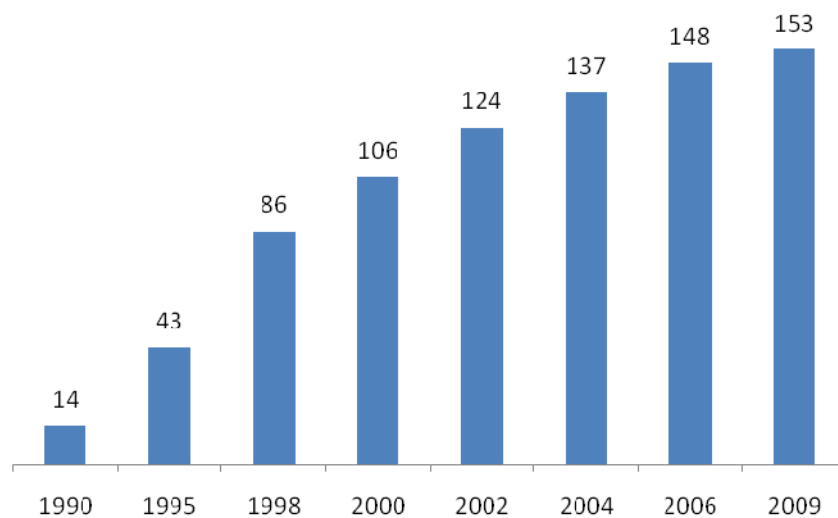
This Background Paper aims to give an overview of the current status of the ICT legal and regulatory environment in CIS countries, whilst highlighting challenges, identifying international best practices and seeking feedback from policy-makers and regulators in the region on their regulatory priorities. It aims to discuss a more harmonized approach to ICT regulation in the CIS region.

3. CURRENT SITUATION: REGIONAL REGULATORY TRENDS IN THE GLOBAL CONTEXT

3.1 Regulatory Institutions

Over the last decade, most CIS countries have begun initiating sector reforms ranging from introducing limited changes to extended restructuring. The results and level of success are reflected in current ICT penetration rates levels. Worldwide, the first wave of sector reform has resulted in the establishment of separate telecom/ICT regulator in 153 countries throughout the world (see Figure 1). In the CIS region, six countries have established regulatory institutions – namely, Armenia, Georgia, Kazakhstan, Kyrgyzstan, Moldova and Ukraine.

Figure 1: Growth in the number of regulators worldwide, 1990-2009



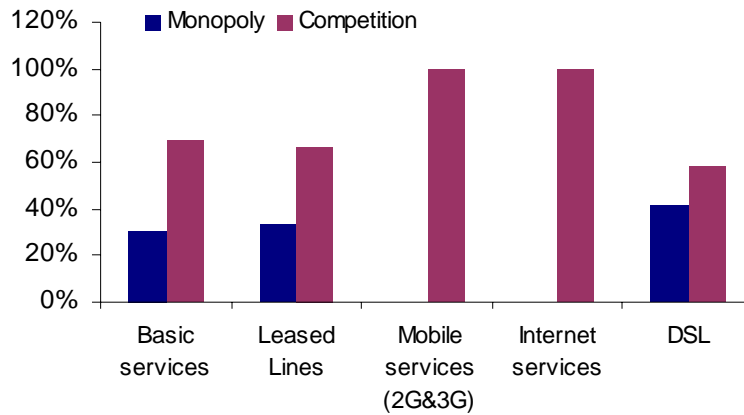
Source: ITU World Telecommunication Regulatory Database.

3.2 Competition & liberalization

The level of competition in a market depends mainly on the market structure. Important regulatory steps in this regard are to address significant market power, remove barriers to entry, and ensure access to essential facilities. The process of opening up basic telecommunication markets around the world has progressed significantly over the last decade (see Figure 2). Many countries began their liberalization process in a phased manner by introducing a limited number of players, before embracing open market entry. The twelve CIS countries have chosen to follow different patterns of regulatory reform. While countries like Georgia² and Moldova have adopted an ambitious path following the EU liberalization model, others opted for different approaches ranging from establishing a regulator and opening up some of their ICT markets to competition to maintaining state control over basic services and regulation.

Globally, more countries authorize competition in mobile and Internet than in basic fixed line voice services. It is not surprising, therefore, that the number of mobile subscribers has skyrocketed, as most mobile operators offer greater choice to consumers.

Figure 2: Competition in selected services in CIS, 2008



Source: ITU World Telecommunication Regulatory Database.

In Georgia, Kyrgyzstan and Moldova, for instance, all communication markets have been liberalized. Mobile and Internet services markets are competitive in virtually all CIS countries. In Azerbaijan, several operators have advanced IP-based networks and are moving towards NGN solutions including IPTV and video-conferencing, as well as VoIP. In Tajikistan, independent operators have already invested in NGN and 3G mobile, but this business is strictly limited to the major cities.

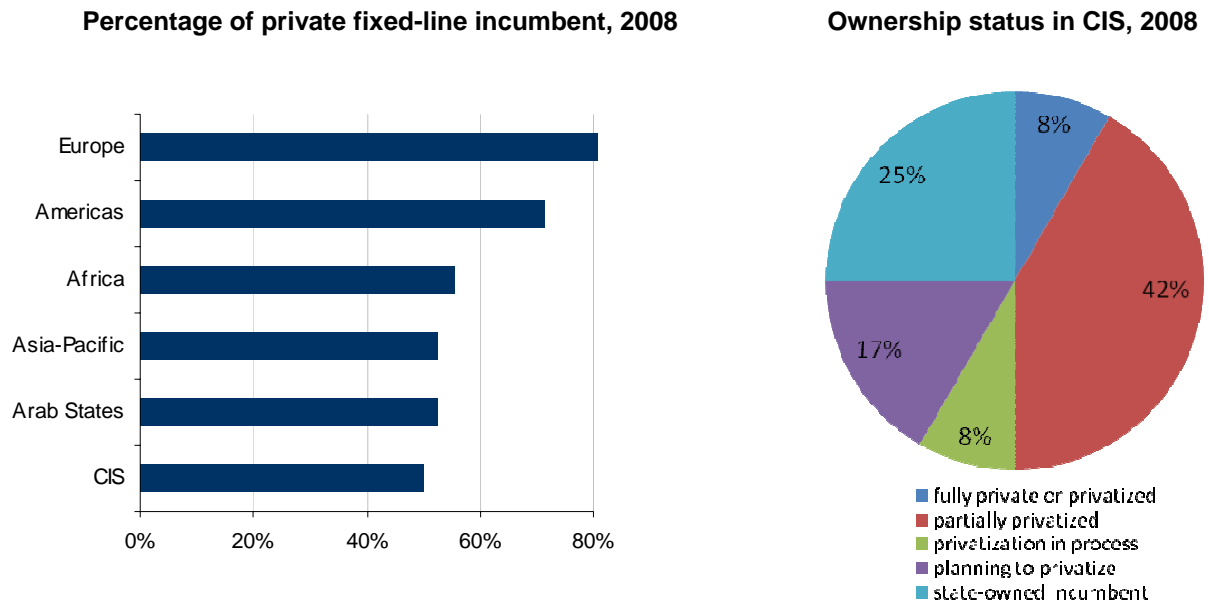
Considering basic services, around two-thirds of CIS countries have introduced some form of competition, while 31 per cent or nearly a third still maintain a monopoly. Despite liberalization, full competition in fixed lines is still very limited. Many countries have yet to introduce carrier selection and pre-selection or number portability, measure which would help promote competition, consumer demand and consumer choice. Even where liberalization has occurred, a number of challenges persist that are common to many CIS countries to differing degrees, such as outdated infrastructure, low levels of investment in new services and network deployment by incumbents with significant market power.

In order to grow broadband networks, fibre backhaul and backbone networks are required in addition to low-cost international Internet connectivity. Worldwide, the majority of countries have fully liberalized their international gateway, with nearly a third allowing partial competition in this area. In CIS countries, at least seven countries have opened up international gateways (cable landing and/or satellite) to some form of competition. International services, however, remain the exclusive domain of state-owned incumbents in the great majority of CIS countries.

3.3 Private ownership – foreign funding

By mid-2009, 123 ITU Member States had a privately-owned or partially-privatized national fixed-line incumbent (see Figure 3, left chart). The regions with the highest percentage of private ownership are Europe and the Americas. In the CIS region, half of all countries have fully or partially privatized their incumbent operators, with privatization either planned or underway in a further three countries (Azerbaijan, Moldova and Uzbekistan - see Figure 3, right chart). As part of their commitments to the World Trade Organization's (WTO) Agreement on Basic Telecommunications (ABT), Armenia, Georgia, Kyrgyz Republic, Moldova and Ukraine have committed to open up their telecommunication markets to foreign participation.

Figure 3: Private ownership worldwide and in CIS, 2008



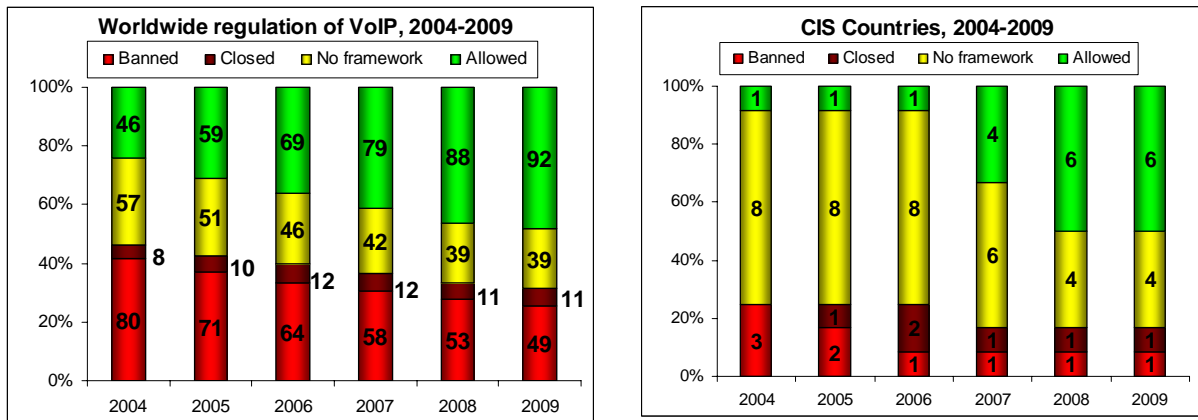
Source: ITU World Telecommunication Regulatory Database.

3.4 Regulating new converged services

Voice over Internet Protocol (VoIP) is an example of a new converged service that is opening up markets to new entrants across the globe. VoIP is, however, still considered a threat by many incumbents and governments in developing and transition economies as highlighted in Figure 4. A number of countries authorize the provision of VoIP service either solely by the incumbent or solely for wholesale services, rather than the provision of retail VoIP services to consumers. Many countries throughout the world have taken a cautious approach to legalizing VoIP, while others are allowing the provision of such services on a competitive basis by all ICT players.

Half of all CIS countries have now legalized VoIP (Figure 4, right chart). For example, Azerbaijan legalized VoIP by Presidential decree at the start of 2007 and VoIP is now recognized by the Ministry of Communication and IT as a communication service that can be provided after obtaining a special authorization with a five-year licence. Globally, the trend is to move towards allowing the provision of VoIP services (see Figure 4, left chart).

Figure 4: Status of VoIP regulation in CIS and the world, 2004-2009



Source: ITU. Note: Data are available for 191 countries. 'Closed' means only wholesale VoIP is permitted or VoIP is restricted to the incumbents only. All data are for year-end, except mid-2009.

Irrespective of whether VoIP licenses are theoretically available, the key factor is whether new entrants can launch VoIP services. In several countries, incumbent operators retain overall *de facto* control of international gateways and enjoy exclusive rights to carry international traffic and/or connect with foreign telecommunication networks.

3.5 Authorizations & licensing of ICT services

Entry into telecommunication, broadcasting, and some other ICT markets has historically been subject to detailed individual licensing, allowing governments to decide the specific number of players allowed to enter the market. This often results in a complex and heavy administrative licensing system, however. Changes in the competitive landscape fuelled by the liberalization of the sector now require changes to this licensing process.

Today, the practice of issuing detailed individual licences to specific ICT service providers is gradually being replaced by general authorization regimes, although even under a general authorization regime, individual licences usually remain in place for regulating the use of scarce resources such as radio spectrum and numbering. A number of countries, mostly in Africa and in Asia-Pacific, have transitioned from service- and technology-specific licensing regimes to more neutral frameworks characterized by unified or multi-service authorizations. Unified and multi-service licensing regimes often do not require applicants to go through a competitive selection process to obtain an authorization. Moving towards these regimes can give market players administrative simplification, more flexibility and technology neutrality. The shift to general authorizations accelerated when the EU established a new electronic communications regulatory framework in July 2003. Following this action, some non-EU countries have adopted similar general authorization regimes, as Georgia and Moldova have in recent years. With the exception of these two countries, all CIS countries maintain an individual licensing system, whereby each separate telecommunication service requires a separate license.

3.6 Spectrum reform

As the demand for spectrum has increased over the recent years and frequency bands have become more congested, there has been a shift away from the traditional spectrum allocation model (based on an administrative approach of issuing licenses for specific purposes and limited access and use of radio spectrum) to relying more on market methods - especially in those countries where demand for radio spectrum use is rising fast. Spectrum managers are following diverse approaches to sharing frequencies, including the use of administrative methods such as in-band sharing, licensing such as leasing and

spectrum trading, and unlicensed spectrum commons combined with the use of low-power radios or advanced radio technologies (including ultra-wideband and multi-modal radios).

Two of the mechanisms gaining favor in efforts to alleviate administrative scarcity are the use of market methods such as spectrum trading or in-band migration/refarming and the spectrum commons. Refarming refers to using spectrum initially allocated for 2G services to provide 3G services instead. In the CIS region, reforms have been introduced in Georgia and Belarus. Georgia is permitting spectrum trading and in-band migration. Belarus is authorizing refarming.

On the international level, the ITU Radio Regulations are the international regulations used by ITU Member States to allocate and manage spectrum within their jurisdictions. The ITU Radio Regulations allow the development of different radiocommunication services within the designated spectrum bands, allowing countries to have a broad degree of discretion in introducing technology neutrality.

3.7 Universal access and service

Historically and throughout the world, universal access obligations have been placed on monopoly incumbents and financed by internal financing (i.e. cross-subsidization) and access interconnection charges applied to other operators. Typically, they sought to establish universal targets set for fixed-line penetration. Following sector reform and liberalization of telecommunication markets over the last two decades, a new type of funding mechanism was developed in the Universal Service Fund (USF), to which operators and service providers are required to contribute a percentage of their revenues. Definitions of universal access and universal service have also evolved and today include both mobile and broadband services in a number of countries worldwide (e.g., Canada, Ghana, Morocco, and Switzerland). There is a more recent trend of moving towards alternative, more efficient funding approaches favoring greater involvement of all stakeholders, such as the establishment of Public-Private Partnerships or PPPs (e.g. in the Dominican Republic).

In the CIS region, ten out of the twelve countries have defined universal service in their legislation. The Kyrgyz Republic has drafted a universal access strategy. Seven countries have developed universal service obligations (USOs). While Moldova and Ukraine have followed the traditional USO approach, Universal Service Providers have been appointed in Armenia, Kazakhstan, Russian Federation (for different areas via competitive tender) and Uzbekistan. In Belarus, Belarus Telecom effectively fulfils this role. Universal Service Funds exist in Azerbaijan, Belarus, the Russian Federation and Uzbekistan. Operators contribute between 1.2 - 1.5% of their revenues. Universal access in the CIS region mainly focuses on the provision of fixed line services, residential and public. In some countries, mobile operators are also required to contribute to USFs (e.g. in Belarus). Funds collected through the USFs could also be used to support the development of new core and access networks through Public-Private Partnerships.

Some countries have chosen a different approach (e.g. the Kyrgyz Republic) and are relying exclusively on operators to extend service in rural areas. Innovative plans for universal service are emerging - in Armenia, the Ministry is considering a plan to encourage private investments in fibre networks in local rural areas on a competitive basis to extend network reach, with a view to achieving full national coverage by 2012.

3.8 ATTRACTING INVESTMENT

In the current global economic turmoil, CIS countries are being impacted on different levels - through restrained access to foreign funding (with the exception of Russia), the rapid depreciation of their currencies or reduced demand for their products from other economies affecting the whole of their economies and resulting in a sharp decrease in real GDP. As a result, Belarus and Ukraine have both received IMF funding while Armenia and Georgia are receiving IMF support (since before the financial crisis in the case of Georgia).³ Securing external funding to foster network deployments and broadband connectivity in particular calls for innovative business approaches and proactive regulation.

Proactive approaches can be taken by regulators and policy-makers to prevent reduced liquidity in global markets inform affecting ICT markets. A two-pronged strategy is required – an approach that examines how

governments can lend money to the private sector through PPPs and other funding programmes (including stimulus plans), whilst also looking at effective regulatory strategies and policies – both financial and non-financial. The aim of both approaches is to lower costs, increase efficiency and ultimately improve the market for the benefit of operators, consumers and policy-makers. In order to work, these strategies must be underpinned by strong regulatory institutions, and transparent policies and procedures – the bedrocks of effective regulation. There is a vital role for NRAs in attracting the investment that will steer the ICT sector through the current crisis.

Worldwide, local and municipal governments are becoming more involved in supporting the development of new networks, especially next-generation core and access networks (mainly fibre), through PPP arrangements. This trend emerged before the global financial crisis, but has been reinforced by recent developments. In these arrangements, local authorities contract with private sector operators to provide open, non-discriminatory access to the network facilities by retail service providers. Retail service providers then offer broadband, television, and telephony services to the public. With the state taking a more prominent role in funding investments in telecommunication/ICT networks, it is essential that the principles governing state involvement in the funding and deployment of networks are clear.

3.9 HARMONIZATION OF REGULATORY FRAMEWORKS

In the context of globalization and ubiquitous ICT services, regulators are increasingly facing issues going beyond their jurisdictional boundaries. Operators with a presence in more than one market can benefit from consistency of regulation, while reducing their costs of compliance. For local players, regional harmonization and exchange of ideas is likely to improve the quality of regulation and thus create a better investment environment. For consumers, this is likely to amplify the benefits of available ICT services, ensuring seamless transition over different networks and reducing the costs of communication services.

Regulators recognize the importance of regional and international cooperation in a sector where service providers and operators are becoming global. Over fifteen regional or linguistic regulatory associations have been established throughout the world. These platforms offer regulators the opportunity to share experiences and approaches and have resulted in some cases, in the adoption of regional regulatory guidelines and harmonized regulatory frameworks, benefiting in turn the entire community.

Harmonization of regulatory frameworks can be a challenge for regions where countries are at different stages of sector reform and market maturities. Nevertheless, identifying common regional policies and regulatory ICT guidelines is a first step in moving towards a harmonized regulatory framework. Regional harmonization initiatives were launched in 2008 in Africa and in the Caribbean as part of ITU regional initiatives, and under an umbrella ITU-EC cooperation project entitled, “Support for the Establishment of Harmonized Policies for the ICT Market in the ACP”. It aims at developing and promoting harmonized policies and guidelines for the ICT market, as well as building human and institutional capacity in the field of ICT through a range of targeted training, education and knowledge-sharing measures. The project builds on the successful project carried out by the ITU and the EC on ICT Market Harmonization for ECOWAS/UEMOA in West Africa from 2004 to 2007. Asia-Pacific countries and the Arab States have also adopted regional harmonization of the regulatory frameworks as part of the ITU regional initiatives.

4. CONCLUSION AND RECOMMENDATIONS

Further regulatory reforms are required to open markets more fully, guaranteeing access to bottleneck network facilities by all market players on a non-discriminatory basis and updating licensing and spectrum management practices to foster widespread, affordable, and secure access to ICTs, while attracting investment in the sector. This is needed in order to drive development of broadband in the region, which has yet to be developed to the level of development of the rest of the world's regions.

Based on best practices from around the world, CIS countries could consider the following steps to develop an enabling regulatory environment for ICT development:

- ✓ Governments recognizing the role of ICTs as a tool for development;
- ✓ Governments promoting the role of regulators as enablers of market growth by ensuring that ICT regulators are insulated from political and industry interference;
- ✓ Governments ensuring improved capacity of national regulatory authorities by adopting harmonized policy and regulatory frameworks and supporting capacity building initiatives;
- ✓ Governments together with regulators establishing clear, predictable and effective regulatory frameworks and regimes that promote effective use and sharing of networks, including leveraging the country's non-telecommunication infrastructure;
- ✓ Policy-makers and regulators adopting and enforcing clear and non-discriminatory rules;
- ✓ Ensuring transparent policy and regulatory processes, including mechanisms such as public consultations, etc. to further the dialogue with industry and consumers. Conducting periodical regulatory and market review, making the outcomes widely available and using them to refocus national policies and strategies in place is also considered best practice.
- ✓ Fully liberalizing all telecom and ICT market segments, including international gateways to drive down the cost of Internet and voice connectivity;
- ✓ Extending access to voice telephony services by legalizing VoIP where this has not yet occurred;
- ✓ Opening ICT markets to greater competition by adopting administratively simplified and flexible models such as general authorizations or unified licenses, which take a technology-neutral approach to market entry;
- ✓ Imposing only restrictions that are strictly necessary to promote competition and that are proportionate to the established policy goals;
- ✓ Promoting universal access to broadband services, notably by developing a broadband policy and a targeted universal access policy; integrating these policies with other sector policies and programmes (such as education, e-government, e-health, e-commerce, etc.);
- ✓ Adopting a technology-neutral approach to facilitate the use of all transport mechanisms, whether wireline, power line, cable, fiber optic, wireless, or satellite, while not underestimating the potential of new and emerging technologies;
- ✓ Exploring innovative partnership models to allow deploying all-IP networks in underserved areas more quickly;
- ✓ Making adequate spectrum available for IMT services that includes broadband wireless access systems. This includes making spectrum available to small market players interested in providing connectivity in rural areas;
- ✓ Encouraging the roll-out of broadband-capable infrastructure to remote areas by providing incentives such as lower regulatory or spectrum fees or lower taxes or by including roll out requirements in license agreements;
- ✓ Providing tax incentives to encourage backbone deployment and reducing customs duties on ICT equipment to make it more affordable for end users
- ✓ Creating national Internet Exchange Points and sub-regional IXPs, as well as VoIP peering exchanges to keep local Internet traffic local, and pool international Internet traffic to keep the costs of peering and transit low; and
- ✓ Publishing and benchmarking retail costs for broadband services to further apply positive pressure to reduce the costs for broadband services.

¹ Geneva Plan of Action, para 13, at: www.itu.int/wsis/outcome

² <http://ebrd.com/country/sector/law/telecoms/new/tkeshel.pdf>

³ World Economic Outlook (WEO) Crisis and Recovery, International Monetary Fund (IMF)
<http://www.imf.org/external/pubs/ft/weo/2009/01/pdf/c2.pdf>