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**LEGAL TRANSITION PROGRAMME**

**Telecommunications Regulatory Development**

**COMPARATIVE ASSESSMENT of the  
TELECOMMUNICATIONS SECTOR in the  
TRANSITION ECONOMIES**

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## I. BACKGROUND AND OBJECTIVES

Under the Legal Transition Programme of the European Bank for Reconstruction and Development (the “EBRD” or the “Bank”), the Bank’s Legal Transition Team (LTT) has focused part of its work on the development of detailed analytical assessments of the state of legal transition in a number of commercial and financial sectors of its countries of operation. These assessments benchmark the developments in each country against international or harmonised standards, providing a clear analysis of the existing legislative framework and identifying gaps and future legal reform needs.

The EBRD commenced a project in May 2008 to assess the communications sector in each of the Bank’s countries of operation. The communications sector in this context refers to the market for the supply of telecommunications services, principally fixed line, mobile and broadband services.

The EBRD’s 29 current countries of operation are Albania, Armenia, Azerbaijan, Belarus, Bosnia & Herzegovina, Bulgaria, Croatia, Czech Republic<sup>1</sup>, Estonia, FYR Macedonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Mongolia, Montenegro, Poland, Romania, Russian Federation, Serbia (including Kosovo), Slovak Republic, Slovenia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. Turkey, which was an applicant for EBRD country of operation status during the course of the assessment, was admitted as such in October 2008 and, has thus been included in this assessment.

The purpose of this assessment is to examine whether the legal and regulatory framework for communications in the Bank’s countries of operation is sufficiently extensive to secure fundamental sector transition and reform objectives. It therefore measures the state of play in the communications sector (i.e. status, progress, level of approximation of local laws/regulations to international standards, future needs, etc).

EBRD also wishes to be in a position to assess the effectiveness of its technical cooperation efforts as well as pinpointing elements the Bank could provide new or additional technical assistance in furtherance of its mandate.

EBRD contracted consultants Cullen International SA (CI), in conjunction with Development Dynamics Limited (DDL) (the “Consultant”) to collect and analyse the required data and to prepare an assessment report (the “Assessment”).

The results from the Assessment are being published on the EBRD website (<http://www.ebrd.com/country/sector/law/telecoms/index.htm>) and, on a standalone basis, while summaries of the Assessment will appear in EBRD’s economic review, *Transition Report* (2008) and in EBRD’s legal journal, *Law in transition* (Spring 2009).

The specific objectives of the communications sector assessment are:

- Firstly, to provide a credible assessment of the communications sector in the Bank’s countries of operation in order to encourage, influence and provide guidance for ongoing and future legal reform efforts in those countries.
- Secondly, the information provided by the assessments can assist the EBRD to measure legal and regulatory risk in its countries of operations and in specific investment activities.

## II. DATA COLLECTION AND ASSESSMENT METHODOLOGY

### A. Information sources

The Consultant has drawn upon a variety of sector data and information, both inside and outside each country. Some background information was readily available and easily accessible for desk

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<sup>1</sup> The Czech Republic has graduated from EBRD. This means that, as country of the end of 2007, the EBRD no longer makes investments in the Czech Republic, reflecting the advanced state of transition achieved by the country. However the Bank continues to monitor its portfolio of projects in the country and work closely with Czech enterprises investing in countries further east. Notwithstanding this, the Czech Republic operation has been included in the Assessment for comparison purposes.

research. These sources included the European Commission; the International telecommunications Union; EBRD; World Bank; together with the websites of national regulatory authorities, national governments and their constituent ministries, official national data sources, local technical and general news and industry websites, professional data sources, international organisations and institutions, etc.

For the EBRD countries of operation that are in the European (EU), i.e. Bulgaria, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia, plus the Czech Republic, we have relied upon the "Progress Report on the Single European Electronic Communications Market 2007 (13th Report) {COM(2008) 153}".

The primary source of data for the assessment of the remaining countries was the country sector authorities (i.e. national regulatory authorities, sector related agencies and sector ministries).

For the South Eastern Europe (SEE) Region, i.e. Albania, Bosnia and Herzegovina, Croatia, FYR Macedonia, Montenegro and Serbia, (with Kosovo assessed separately), the required data was collected alongside the parallel project: "Supply of Services in Monitoring Regulatory and Market Developments for Electronic Communications and Information Society Services in Enlargement Countries": This is a European Commission project that was awarded to Cullen International in 2007. The first monitoring report was published on the Commission's website<sup>2</sup> in October 2008.

To achieve a consistent basis for the collection of data in the remaining EBRD countries of operation (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Mongolia, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan), a specially designed questionnaire was used. The full Questionnaire is included in Annex A.

The Consultant received a varying degree of co-operation from these authorities. Some have been fully co-operative, while authorities while others have been less responsive.

Where possible, particularly where the response of the sector authorities was insufficient or absent, appropriate alternative sources of data were referred to, including;

- Business information of interest to existing and prospective operators/investors such as licensing procedures, technical requirements, interconnection agreements, online forms for certification, authorisation etc. Here information, which explains and describes the procedures and requirements was looked for, rather than the mere formal documentation and legislation itself.
- Consumer and citizen Information: Information of interest to investors, prospective investors, end-users or prospective end-users about consumer information, universal service, consumer rights (and reporting abuses) and tariffs. In addition to actual legislation and formal guidelines, digested information was looked for, such as clear explanations (e.g. complaint procedure), and frequently asked questions (FAQs) on Ministry and regulatory websites, which will be important to the consumers.
- Telecom regulatory news and other news or journalistic based sources: This element covered information, regulatory news and developments published or available from researchers and journalists.

A full list of the people contacted in each country is given in Annex B.

Note: The information collected from the EU Member States and the South East European Region is a result of monitoring procedures and methods that have been developed over many years. The information collected from Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Mongolia, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan (collectively referred to in this report as "CIS+M"<sup>3</sup>)

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<sup>2</sup> [http://ec.europa.eu/information\\_society/activities/internationalrel/dialogue\\_coop/enlargement/index\\_en.htm](http://ec.europa.eu/information_society/activities/internationalrel/dialogue_coop/enlargement/index_en.htm)

<sup>3</sup> At the date of the assessment the Republic of Georgia was part of the Confederation of Independent States (CIS). The CIS Council of Ministers approved Georgia's application to withdraw from the organisation on 9<sup>th</sup> October 2008.

represents a first effort to collect regulatory information with a certain level of detail. The availability of information from these sub-regions can suffer not only from a varying degree of co-operation from the authorities, but also from what is often a lower level of transparency in general when it comes to many aspects of regulations. Accordingly, the same level of accuracy should not be expected for the information presented from these sub-regions.

The above information was collected during May and June 2008 after which an assessment methodology developed for the purposes of the Assessment was applied. This regulatory assessment model is intended as a guide to place national regulatory arrangements for the telecommunications sector into one of four broad categories: *Full compliance*, *High compliance*, *Medium compliance* and *Low compliance*

Compliance in this context should be understood as compliance with the World Trade Organisation (WTO) Reference Paper on Telecommunications Services, which is explained below. It specifically does not mean full compliance with EU regulatory framework(s). Such compliance would require much more detailed assessment than that provided by this model. Furthermore, assessment and the assessment categories are intended to provide a quick guide to the overall situation in the country. This assessment model is intended to work with a wide range of national environments. In this context, we would expect that all EU Member States would be found fully compliant according to this model. The assessment indicators are intended to be as objective and factual as possible. Value judgments are avoided as far as possible.

In the assessment, each country is given a compliance score, as follows;

*Full Compliance* means an assessment score of 90-100

*High Compliance* means an assessment score of 75-89

*Medium Compliance* means an assessment score of 50-74

*Low Compliance* means an assessment score of under 50

Note: All compliance categories are defined as ranges of assessment values; This is also the case for "Full Compliance", which may therefore not always represent 100% compliance in the sense of a score of 100. It is the highest assessment category in the EBRD assessment model, but there may still be some aspects of the framework that have been marked down by the assessment model.

The details of the regulatory assessment model and methodology are given in Annex C.

## B. WTO Reference Paper and the EBRD assessment model

Some telecommunications services, mainly value added services, were included in the Uruguay Round of trade negotiations which took place between 1986 and 1994. After completion of these negotiations, WTO Members decided to open special negotiations for trade in basic telecommunications services, such as voice telephony, data transmission and satellite services. These additional negotiations took place from 1994 to 1997 and around 70 countries agreed in February 1997 to open their markets for basic telecommunications services in a multilateral agreement. Since then, more countries have become WTO Members and/or signatories to the agreement on basic telecommunications services<sup>4</sup>.

The agreement itself is complex and allows each signatory to define its own set of commitments, i.e. which services can be open for international competition, the categories of business models that would be allowed and whether to extend these commitments to other countries or not, through most-favoured-nation clauses.

The agreement also includes provisions for how this international competition shall be regulated. This is done through a "Reference Paper", which defines a set of regulatory principles for the establishment of fair market conditions. In the context of the trade negotiations that took place, the countries were given the choice of making a formal commitment to accept the Reference

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<sup>4</sup> The full name of the agreement is Scheduled Commitments on basic telecommunications services annexed to the Fourth Protocol of the GATS (15 February 1997)

Paper. Most of the WTO Members made this commitment. At this time around 75 countries, including the EU Member States, have accepted the Reference Paper. From a legal point of view, a commitment to the Reference Paper means that it is part of the international treaty and therefore binding on the WTO Members.

The WTO Reference Paper<sup>5</sup> itself is a short 2½ page document that sets out rather broad and general principles which have achieved a high degree of consensus. Its main points are:

- Competitive safeguards
  - Prevention of anti-competitive practices
  - Safeguards
- Interconnection
  - Interconnection to be ensured
  - Public availability of the procedures for interconnection negotiations
  - Transparency of interconnection arrangements
  - Interconnection: dispute settlement
- Universal service
- Public availability of licensing criteria
- Independent regulators
- Allocation and use of scarce resources

By comparison, the EU framework is set out in several directives with around 100 pages of detailed specification of how these principles should be implemented.

The EBRD assessment model is based on the WTO Reference Paper, but many of the specific indicators are drawn from the examples provided by the EU framework. The structure of the assessment model is as follows:

- Institutional framework
  - Regulatory independence
  - Dispute resolution and appeal
- Market access
  - Access to non-scarce resources
  - Access to scarce resources
- Operational environment
  - Safeguards
  - Interconnection and special access
- Universal service

A full description of the EBRD assessment model is provided in Annex C.

## C. Explanation of assessments and results

### 1. Spider diagram

A spider diagram presents the main results of the Assessment. It includes six main group indicators. For each indicator, the diagram presents the scores as percentages of the maximum achievable score. The scores begin at zero at the centre of the chart and reach 1.00 at the outside, so that in the overall chart, the wider the web, the better the scores in the assessment.

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<sup>5</sup> [http://www.wto.org/english/news\\_e/pres97\\_e/refpap-e.htm](http://www.wto.org/english/news_e/pres97_e/refpap-e.htm)

This type of diagram is useful because it provides a summary of the assessment at a quick glance. However, it is not able to show the relative weight given to each group indicator. Nor is it able to present negative values. This means that it cannot include universal service, which is handled in the assessment model by the alternative means of applying a negative score to unsatisfactory results. Where this occurs, it is mentioned in a note below the diagram.

For a more detailed description of the assessment model, see Annex C.

The six group indicators shown in the spider diagram are:

1. Regulatory independence – maximum 22 points

This group indicator is intended to show whether the legal framework includes a regulatory authority that is independent from the operators, reasonably independent from political pressure and with sufficient powers to regulate the market.

2. Dispute resolution and appeal – maximum 10 points

Points have been assigned where the National Regulatory Authority (NRA) has the power to resolve commercial disputes between operators and can demonstrate that such disputes have been resolved. The group indicator also assigns points where there is a reasonably efficient appeal mechanism. Most countries have the possibility to appeal a decision by the NRA to the administrative court system. But a country has points taken away if the appeal procedure takes too much time or if the appeal mechanism is not being used.

3. Market access wired – maximum 20 points

This group indicator looks at the authorisation framework for networks and services that do not depend on scarce resources. A country has points taken away if there are services that are not open to competition, if the licensing fees are high and if the authorisation framework is complex and there is uncertainty whether licences will be granted.

4. Market access radio – maximum 10 points

This group indicator looks at whether the regulatory framework provides certainty for non-discriminatory access to radio spectrum. It also considers whether numbering resources are available to all operators.

5. SMP and safeguards – maximum 20 points

Competitive safeguards are those measures that are intended to protect new entrants against the anti-competitive practices of incumbent operator(s) with significant market power.

The model identifies if there are formal and objective procedures to identify the existence of significant market power. It assigns a higher value if this procedure is based on a formal market analysis according to competition law principles and a lesser value if a simpler procedure based on market share is used

In addition, the assessment model looks for specific implementation (in legal provisions and in practice) of number portability, carrier selection and carrier pre-selection.

6. Interconnection and special access – maximum 18 points

This group indicator gives points for the existence of a reference interconnection offer (RIO) that is approved by the NRA and published. However, a country has points taken away if the legal framework does not set out requirement for non-discrimination for RIO usage or if there is little evidence that the RIO is being used.

Similarly, the assessment model looks for the existence of a reference unbundling offer (RUO) and assigns value where a RUO has been approved and additional points if it is used to provide services by alternative operators.

7. Universal service

The WTO Reference Paper does not require a universal service policy. But if such a policy is implemented, it should meet certain criteria:

- the objectives should be reasonable in light of the national economy and the status of the network(s).
- the objectives should be expressed in a form that is technologically neutral. (For example, they should take into account the contributions of mobile networks to the provision of universal service.)
- the obligations arising from universal service obligations, which may be a funding requirement for some of the competitors, should be non-discriminatory, competitively neutral and not overly burdensome. They should not be perceived as a barrier to market entry.

If these criteria are not met, a negative value may be assigned. Spider diagrams cannot reflect negative values. Where such negative values occur, it is mentioned in a note under the diagram.

## 2. Fixed network penetration

This chart provides the fixed network penetration defined as active subscriber lines as a percentage of population. The averages are defined as follows:

- The EU average is the average for the EU Member States as reported by the Commission Staff Working Document of June 28, 2006 on the Review of the Scope of Universal Service in line with Article 15 of Directive 2002/22/EC. (SEC(2006) 816).
- The SEE average is the average for Albania, Bosnia & Herzegovina, Croatia, FYR Macedonia, Montenegro, Serbia and Kosovo as reported in Cullen International's first report of the study: "Supply of Services in Monitoring Regulatory and Market Developments for Electronic Communications and Information Society Services in Enlargement Countries" for the European Commission. Turkey, which is included in the report for the European Commission, is not included in the averages for SEE in this report.
- The CIS average is the average for the Commonwealth and Independent States (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan) plus Mongolia as reported in this study.
- The EU10 average is the average for the EU Member States that are included in this report, i.e. Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia.

## 3. Mobile network penetration

This chart provides the mobile network penetration defined as active pre- and post-paid subscribers as a percentage of population. The averages are defined as follows:

- The EU average is the average for the 27 EU Member States as reported by the 13<sup>th</sup> Implementation Report by the European Commission
- The SEE average is the average for Albania, Bosnia & Herzegovina, Croatia, FYR Macedonia, Montenegro, Serbia, Kosovo and Turkey as reported in Cullen International's first report of the study: "Supply of Services in Monitoring Regulatory and Market Developments for Electronic Communications and Information Society Services in Enlargement Countries" for the European Commission, Turkey, which is included in the report for the European Commission, is not included in the averages for SEE in this report.
- The CIS average is the average for the Commonwealth and Independent States (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan) plus Mongolia as reported in this study.
- The EU10 average is the average for the EU Member States that are included in this report, i.e. Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia.

#### 4. Broadband network penetration

This chart provides the broadband network penetration defined as the number of access subscribers with speeds of 144k/bits or more as a percentage of population. The averages are defined as follows:

- The EU average is the average for the 27 EU Member States as reported by the 13<sup>th</sup> Implementation Report by the European Commission
- The SEE average is the average for Albania, Bosnia & Herzegovina, Croatia, FYR Macedonia, Montenegro, Serbia, Kosovo and Turkey as reported in Cullen International's first report of the study: "Supply of Services in Monitoring Regulatory and Market Developments for Electronic Communications and Information Society Services in Enlargement Countries" for the European Commission, Turkey, which is included in the report for the European Commission, is not included in the averages for SEE in this report.
- The CIS average is the average for the Commonwealth and Independent States (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan) plus Mongolia as reported in this study.
- The EU10 average is the average for the EU Member States that are included in this report, i.e. Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia.

Note: The date of the main information used in this assessment is April 2008. Changes that we are aware of that have occurred since Spring 2008 have been incorporated in the report with appropriate footnotes/references. There may have been changes that have occurred that we are not aware of, in which case we would welcome readers to send in details with appropriate reference sources. The regulatory assessment results have used the April 2008 information in order to present a consistent set of results for comparison purposes. Any new information will be used in a full update of the assessment, recommended for 2009.

#### D. Glossary of main technical terms used in this report

Term	Explanation
2G	Second generation (2G) cellular telecoms networks were commercially launched on the GSM standard in 1991. Three primary benefits of 2G networks over their predecessors (retrospectively termed "1G") were that phone conversations were digitally encrypted, 2G systems are significantly more efficient on the spectrum allowing for far greater mobile phone penetration levels. 2 <sup>nd</sup> Generation mobile, although still widespread, are limited in their capacity and service capability to voice calls and text messaging.
2.5G	An enhanced "2 <sup>nd</sup> Generation" capability for mobile networks and services, allowing greater capacity for low speed data services to customers, as well as voice services.
3G	Third Generation mobile networks and services, which are high capacity fully digital mobile services, capable of being used to access a range of services e.g. for voice calls, Internet and TV.
acquis	The <i>acquis communautaire</i> , meaning the body of EU law, applying, among other areas, to telecommunications

Bitstream	A wholesale arrangement whereby the network owner installs xDSL equipment on the local loop and provides a broadband path from the subscriber to the interconnection point of a new entrant. The new entrant can resell this capability to its retail customers.
Broadband	A service to customers that provides always-on (i.e. not dial-up) access to higher bandwidth (above 144 Kbits) so that customers can use a range of services (for example voice, Internet and TV) flexibly with a single connection.
Called party pays	A charging and billing arrangement where the revenue from a call is collected from the subscriber receiving the call. In some countries, where billing systems did not collect revenues for certain types of fixed network calls, the calling party pays arrangement was used to collect revenue from mobile subscribers when they received calls from fixed numbers.
Calling party pays	The normal system of charging and billing for telecommunications calls, whereby the subscriber making the call pays for it.
Call termination rates	Charges made by an operator to another operator for terminating calls on its network
CDMA	Code Division Multiple Access is a channel access method utilized by various radio communication technologies, including fixed wireless access (see also WLL). It can also be used with the mobile phone standards called cdmaOne and CDMA2000 (which are often called simply "CDMA"), that use CDMA as their underlying channel access methods.
Co-location	An arrangement (normally imposed on operators by regulators) whereby an incumbent operator allows its buildings, sites and other facilities to be used by other operators to install their equipment for interconnection, rather than the new operators having to build new facilities. The incumbent normally makes a charge to the operators that use the co-location space.
Competitive Safeguards	Conditions that are imposed on operator(s) in order to avoid abuse of significant market power or to avoid other forms of anti-competitive behaviour.
CPS	Carrier pre-selection – a regulatory concept whereby a subscriber is enabled to make a permanent arrangement with its main operator so that a different operator is selected for certain calls (without having to dial an extra prefix),

CS	Carrier selection – a regulatory concept whereby a subscriber is able to choose an operator different from their access line provider for certain calls (for example international calls) by dialling a certain prefix.
DECT	Digital Enhanced Cordless Communications – an ETSI standard for digital wireless telephones designed to work over the normal telephony network (PSTN) within a dwelling.
Dial-up	Services that have to be accessed by the customer keying a number and then waiting for the service provider to respond.
DSL, ADSL, XDSL	Digital Subscriber Loop, Asymmetric Digital Subscriber Loop, High Capacity Digital Subscriber Loop, – technologies that provide higher capacity (normally for a broadband service) on metallic Local Loops
ETSI	European Telecommunications Standards Institute – a European based standardisation organisation now focusing on the development of global standards
<i>Ex-ante</i>	<p><i>Ex ante</i> regulation is anticipatory intervention. <i>Ex ante</i> regulation uses government-specified controls to;</p> <ul style="list-style-type: none"> <li>• prevent socially undesirable actions or outcomes in markets, or</li> <li>• direct market activity towards socially desirable ends.</li> </ul> <p><i>Ex ante</i> regulation is mainly concerned with market structure, i.e. the number of firms and level of market concentration, entry conditions, and the degree of product differentiation.</p>
<i>Ex-post</i>	<i>Ex post</i> regulation addresses specific allegations of anti-competitive behaviour or market abuse. <i>Ex post</i> regulation aims to redress proven misconduct through a range of enforcement options including fines, injunctions, or bans. <i>Ex post</i> regulation is mainly concerned with market conduct – the behaviour of a firm towards its competitors and its customers.
Fibre	Optical fibre, a high capacity physical network transmission and local loop element
Fixed network and fixed service	A telecommunications network that provides service to customers at a fixed location (to a residential or business address).
General authorisation	An authorisation to enter the market after notification to the authorities, but without being required to obtain an approval.

GSM	A “2 <sup>nd</sup> generation” (2G) standard for mobile networks and services, fully digital, but with limited capacity
ICT	Information and Communications Technologies
IEEE	Institute of Electrical and Electronic Engineers – an international organisation heavily involved with standardisation activities.
Incumbent operator	The traditional operator(s) in a country. This is typically an operator that has established its position under monopoly conditions and is therefore often found to have significant market power.
Individual authorisation	An authorisation to enter the market after approval from the authorities. Such approvals can also be in the form of a licence or a concession.
Interconnection	The connection of one telecommunications operator to another so that the customers of each operator can call the customers of the other.
IP technology	Internet Protocol, the main networking technology used in the Internet and increasingly in telecommunications
IP TV	The provision of television channels to customers over Internet service networks
ISP	Internet Service Provider
IT	Information Technology
LLU	<p>Local loop unbundling. This is a regulatory concept whereby a network owner must make its local loops available to competitive operators on a rental basis. This can be in the form of;</p> <ul style="list-style-type: none"><li>• fully unbundled local loop, whereby the competitive operator takes full control of the local loop from the subscriber premises to the main distribution frame at the local exchange;</li><li>• shared unbundled local loop, whereby the local loop is frequency divided into two sub-loops through xDSL technology:<ul style="list-style-type: none"><li>○ voice path, which is typically retained by the incumbent operator;</li><li>○ broadband path, which is typically operated by the new entrant</li></ul></li></ul>

Local Access Network	See Local Loop
Local Loop	The “last mile” connection between the telecommunications operator and the customer. It can be a physical connection of fibre or metallic pair, or a wireless local loop (WLL)
LRIC	Long Run Incremental Costs – the preferred basis for calculating a number of telecommunications charges, particularly for wholesale (interconnection) charges. Variant descriptions of types of LRIC include forward-looking incremental costs and long-run average incremental costs
LTO	Local Telecoms Operator
MNO	Mobile Network Operator
Mobile network and mobile service	A telecommunications network that provides mobile services, i.e. to customers that are not at a fixed location.
MTR	Mobile Termination Rate – the charge made by a mobile operator to another operator for terminating calls to its customers
Multiple Play (double, triple and quadruple play)	A package of services, normally offered to broadband services customers that can include voice calls, Internet access TV channels and mobile service within the same bill
MVNO	Mobile Virtual Network Operator – an operator that provides mobile telephony services without a radio based network. An MVNO has an arrangement with a mobile network operator to use its radio facilities and can also subcontract other services with this operator. Such arrangements can be voluntary commercial arrangements or there can be a regulatory requirement for mobile network operator(s) to provide access to its radio facilities.
New entrant	A new entrant is an operator that has been established after the market has been liberalised. The operator that was already established at that time, typically operating under monopoly conditions, is normally referred to as the incumbent operator
NGN	Next Generation Network(s) – the new generation of telecommunications network technologies that embrace the latest available techniques, including optical fibre and wireless fixed lines and IP networking

NRA	National Regulatory Authority – used as a general term in this document to identify the national authority responsible for the telecommunications (electronic communications) sector.
Number portability	A regulatory concept whereby a subscriber is enabled to change operator without changing number.
Operator	A telecommunications organisation, which provides telecommunications services at a retail and/or wholesale level in the market.
Remedies	Conditions that are imposed on operator(s) with significant market power in order to avoid abuse of this power.
Retail services	Services provided by telecommunications operators to end users.
RIO	Reference interconnection offer – a set of interconnection conditions, which includes technical specifications as well as commercial arrangements and a price list for different interconnection services.
RUO	Reference unbundling offer – a set of unbundling conditions, which includes technical specifications as well as commercial arrangements and a price list for different unbundling services. (See also LLU).
SLA	Service Level Agreement. A formal agreement between operators that defines the levels of service that one provides for another under interconnection arrangements.
SMP	Significant market power. An operator that is designated with SMP may be subject to special conditions to prevent abuse of its market power. Such special conditions are often called “asymmetric regulations” and the conditions are called “remedies” or “competitive safeguards”.
SMS	Short Message Service is a communications protocol allowing the interchange of short text messages between mobile telephone devices. The SMS technology has facilitated the development and growth of text messaging.
Spectrum	The radio frequency spectrum used by telecommunications operators to provide services without physical cabling

Transparency	Transparency is an important principle of good governance – it is widely accepted that there should be the maximum possibility clarity and openness in the operations of government and public administration. It guards against special interests gaining undue influence in markets and generates greater trust on the part of consumers. It assures and satisfies investors that there is a level playing field, and encourages new entrants to sectors. In terms of the quality of public services, the principle of transparency underpins the need for regulations to be as clear, straightforward, and accessible as possible in their drafting, promulgation, codification and dissemination.
Universal access	A special case of universal service that normally refers to a service provided at community access points, e.g. public payphones, Internet cafes.
Universal service	In a telecommunications context, this refers to policies that try to make basic telecommunications services in a country available nationally at an affordable price to any consumer that wants them. Universal service policy can take a number of forms, from providing basic access to communities (e.g. public payphones) to providing a line to anyone that demands it at a national (sometimes very cheap) tariff, to providing more advanced services, for example Internet access for schools.
Unmetered	A call service where the operator makes no charge, for example unmetered local calls are free
Universal Service Fund (USF)	A special purpose fund set up to subsidise a country's universal service policy. Contributions to the fund can come from the telecommunications sector, or from state funds.
Universal Service Obligation (USO)	A set of obligations imposed on one or more operators in order to implement the universal service policy. Such obligations may be accompanied by arrangements for compensation of the extra costs occurred.
Universal Service Provider (USP)	Operator(s) that are obliged to provide a defined universal service
Voice over IP (VoIP)	The use of an Internet service to make voice calls
Wayleave	Permissions granted by owners of land or other facilities to allow operators to use them (for example to put ducting in roads)
WLR	Wholesale Line Rental. Under this arrangement, one operator takes over the retail responsibility for the end-user whilst he physical local access network is retained by the wholesale provider.

Wholesale services	Services provided by one telecommunications operator to another.
WiFi	A widely used technology for wireless local area networks based on the IEEE 802.11 family of standards.
WiMax	A technology for wireless local access networks
Wireless	Telecommunications service using the radio frequency spectrum
Wireline	Telecommunications service provided using physical wires, e.g. optical fibre or copper cables
WLL	Wireless Local Loop, i.e. using radio technologies (rather than a physical metallic path) to create the link between the customer's location and the network.
WTO	World Trade Organisation – an organisation that facilitates multi-lateral trade agreements for its members and to which members can launch complaints in case of infringements.

### III. SUMMARY OF COMMUNICATIONS SECTOR IN the EBRD Region

#### A. Commonwealth of Independent States (CIS) and Mongolia

##### 1. Introduction to Sections on Commonwealth of Independent States and Mongolia

This section includes summaries of the status of the telecommunications sectors in the Commonwealth of Independent States and Mongolia. The full list of EBRD countries of operation in this sub-region, which is referred to as CIS+M, are Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Mongolia, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

The information used in the assessment was drawn from;

- a questionnaire sent by EBRD to the regulatory authorities and/or the ministries in the countries in May 2008;
- personal interviews with authorities and operators conducted by a study team during the second quarter of 2008. A list of people interviewed is included in Annex B;
- desk research from media and other sources interested in consumer, investor and regulatory issues.

The summaries are intended to provide an insight into the regulatory regime and to highlight factors that have influenced the regulatory assessment.

## 2. Armenia

### a) Institutional framework

The Telecommunications Department of the Public Services Regulatory Commission (the "Commission") is the Armenian regulator. The Public Services Regulatory Commission is responsible for activities in the sectors of electric power, natural gas, thermal energy and water in addition to electronic communications. It has an objective to ensure the competitiveness of the market and its responsibilities include licensing, SMP designation and dispute resolution.

The Ministry of Transport and Communications (the "Ministry") is responsible for policy and universal service objectives as well as the development of the radio spectrum allocation table.

Privatisation is complete and the Armenian state has no ownership stake in any operator.

### b) Regulatory independence

The Ministry does not have the power to instruct the regulator on how to decide in specific cases. However, because the Commissioners can be dismissed by the President and the Commission is financed through the state budget it would seem that there is a closer relationship between the Government and the regulator than what is considered best practices in the EU.

The regulator is empowered to fine operators that violate regulations or its decisions. However, the maximum fine is small and is highly unlikely to be an effective deterrent. In theory, the regulator can also suspend a licence.

Armenia has no firm policy to consult with operators on all important questions that affect them. However, the regulator is obliged to consult with consumer protection organisations on tariff and quality of service issues. All decisions of the regulator are published in the Official Bulletin of the Republic of Armenia as well as the website of the regulator.

### c) Market access and authorisations

Data services have been fully liberalised since December 2006 and voice services since October 2007.

Public services that use radio spectrum require a concession (a special category of authorisation). There are two mobile telephone operators. All forms of frequency spectrum allocation where more than one operator may be interested are subject to competitive procedures.

All other types of services are subject to individual licences. There are annual licence fees to be paid. The fees vary with geography and complexity, but they are in any case very low.

### d) Significant market power

Armenia has a framework where the regulator may decide which markets to analyse for significant market power. The analysis is based on competition law principles with the main criterion being a market share greater than 30%. Once an operator has been found to have significant market power, the regulator has discretionary powers to choose from a set of remedies that include obligations on an operator designated with SMP not to discriminate between other operators, to base its tariffs on costs and to provide regulatory transparency.

However, the framework does not provide legal certainty that the conditions of a Reference Interconnection Offer (RIO) will fully apply.

The fully competitive market in Armenia is less than a year in existence and the work on market analysis and designation is in process, but not yet completed.

### e) Competitive safeguards

While work is ongoing to establish significant market power and the corresponding remedies, there are significant gaps in competitive safeguards for alternative or new operators.

The regulator reports that the incumbent operator, Armentel, has a reference interconnection offer, but there is no evidence that it has been used as a base for interconnection

agreements. On the contrary, there are complaints from operators on lack of co-operation and regulatory support for interconnection agreements.

There are no plans yet for carrier selection and pre-selection, or for number portability.

The regulator is considering the introduction of local loop unbundling for the operator that will be designated with significant market power. The implementation of these measures is not expected to be completed before 2010.

f) Universal service and consumer issues

All public telecommunications networks are required to provide free access to emergency services.

Armentel has been assigned an obligation to provide telephony at reduced tariffs for disabled people as well as payphones in certain areas.

There is a scarcity of network coverage for fixed telephony and Internet access in rural areas. The Ministry is considering a plan to encourage private investments in fibre networks in local rural areas on a competitive basis in order to extend the network reach. The objective is to have full national coverage by 2012.

g) Outlook

The lack of safeguards affect in particular services for the residential market that have a high dependence on interconnection and local loop unbundling as well as other safeguards important for telephony such as carrier selection and number portability. One of the consequences of this situation is that the cost of Internet access for residential users is significantly higher than in Western Europe.

Operators providing data transmission services and Internet access to business customers in urban areas based on their own networks appear to be less affected by the lack of these safeguards.

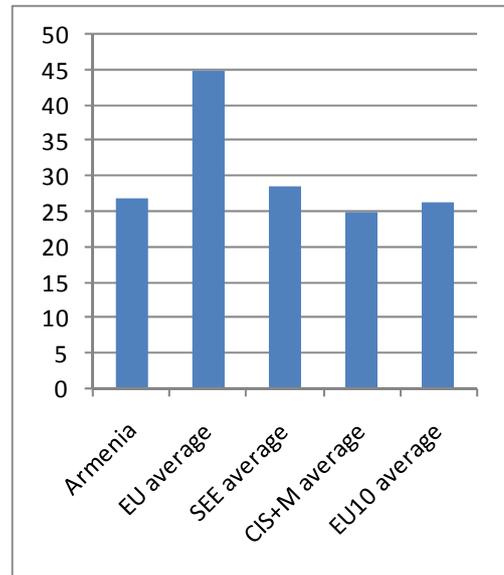
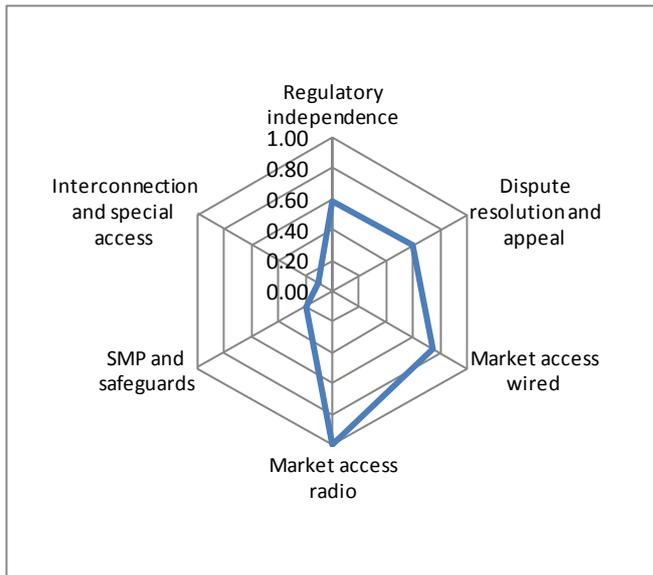
Armenia has a significant task to set up the necessary competitive safeguards in order to create a more competitive telecommunications market.

Operators have also identified issues about the numbering plan, which does not provide for special numbers for emergency services, toll free services, premium rate services or special short service numbers.

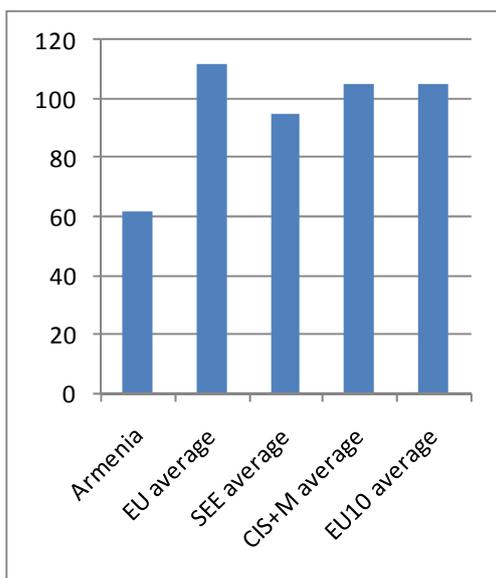
h) Assessment

Armenia is deemed to have "Medium compliance".

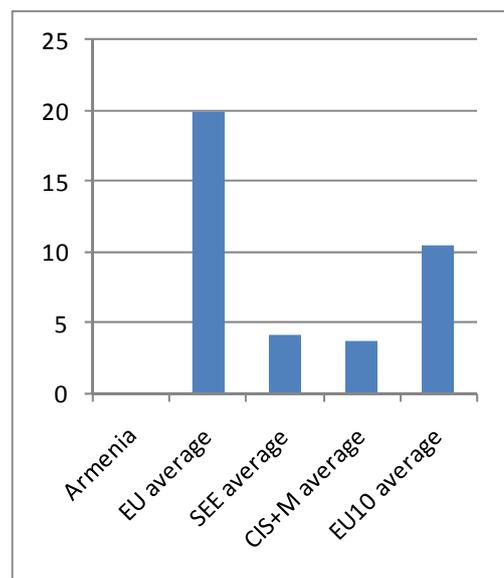
Key indicators for Armenia



Regulatory spider diagram



Fixed network penetration



Mobile network penetration

Broadband network penetration

(Penetration less than 1% is not shown on this chart)

For details of the definitions of the main terms used in these graphics, please refer to "Explanation of assessment and results" in Section II of this report.

3. Azerbaijan

a) Institutional framework

The Ministry of Communications and Information Technologies (the "Ministry") is responsible for the regulatory as well as the ministerial functions for the telecommunications sector. The original name and function of the Ministry was changed in 2004 when Information Technology (IT) was included in its portfolio.

The Ministry also has sole ownership of two fixed incumbent operators and participates in the shareholding of three of the four remaining mobile operators. These operators compete against other private operators in the market.

The decisions by the Ministry may be appealed to the national courts.

b) Regulatory independence

Since the regulatory functions are carried out by the Ministry which also plays a significant role as an owner of no less than five operators, it is clear that the regulatory independence, as it is understood in the WTO reference paper, does not exist.

The questions of privatisation and the establishment of an independent regulatory body have been on the agenda for several years. In the case of AzTelekom, the privatisation process started in 2001, but there is not yet a firm schedule. There is no official explanation for these delays.

c) Market access and authorisations

Azerbaijan has a regime based on individual five year licences for all types of telecommunications activities such as fixed telephony, mobile telephony, IP telephony, radio trunk transmission, data transmission, etc.

Although most types of services are open to competition, there is still an exclusive right for AzTelekom to provide international traffic<sup>6</sup>. For fixed services that are subject to competition, there is no presumption that licences will be granted to all new entrants.

The licences that are granted are typically quite specific in terms of which activities may be carried out and an operator may need several licences in order to provide any given basket of services.

There are operators that make use of CDMA or WiMax for the provision of fixed telephony. Nevertheless, licensing restrictions prevent them from the provision of mobile telephony even where the technology would have made it possible.

There are also restrictions on the provision of local networks for telephony. This means that a provider of Internet services who wishes to enter the telephony market may be refused an IP telephony licence.

Nevertheless, several of the operators have advanced IP based networks and are moving toward next generation network (NGN) solutions that include IP TV and videophone in addition to telephony.

Frequency allocations are carried out by the State Committee on Radio Frequency, while the assignments for civil applications are carried out by the Ministry according to "Rules on utilisation of radio frequencies".

d) Significant market power

There is not yet a framework in place to determine significant market power.

e) Competitive safeguards

Few, if any, competitive safeguards as they are understood in the WTO reference paper have been established. Although the Ministry has established the main principles and terms that shall apply to interconnection, neither a reference interconnection offer nor reference unbundling offer are yet in place with operators with significant market power.

The lack of a reference interconnection offer in combination with the lack of an independent regulatory authority cause interconnection problems for some operators.

Furthermore, although carrier pre-selection is being considered by the Ministry, plans for its introduction or indeed for the introduction of other safeguards, such as carrier selection or number portability, have yet to advance.

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<sup>6</sup> In July 2008 the license for provision of international traffic has been granted to second operator.

f) Universal service and consumer issues

All public telecommunications networks are required to provide free access to emergency services.

It is reported that the Ministry has made an effort to resolve consumer complaints about incorrect telephone bills and that good progress has been made. On the other hand, it is also reported that most subscribers do not have any written contract with their telephone provider and suffer from a lack of legal protection of their rights as a customer.

g) Outlook

Although Azerbaijan admittedly has some distance to go before the country can meet all the requirements of the WTO reference paper, some positive points should be mentioned.

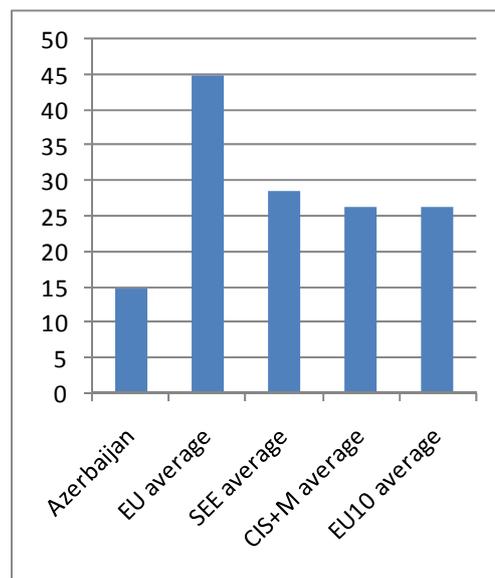
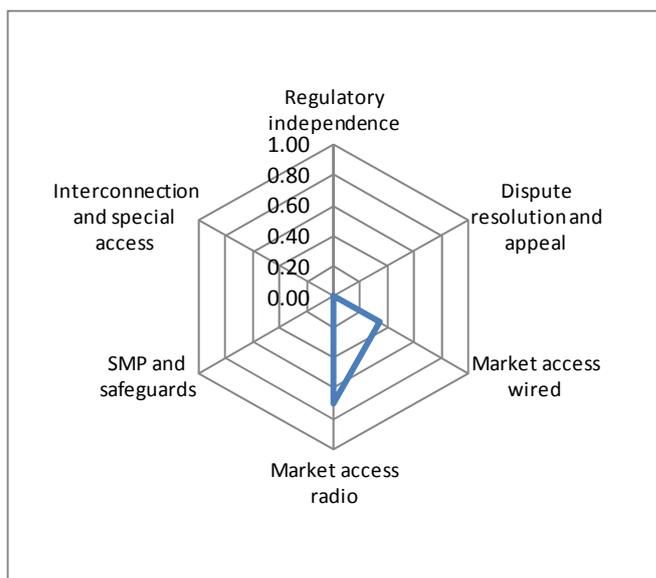
The establishment of an independent regulatory body, which is eagerly awaited, has the support of the Ministry, although a firm plan or timetable has yet to appear. Similarly, privatisation is expected, but a firm plan or timetable has yet to appear.

Going forward, a significant difficulty for Azerbaijan is tariff rebalancing. Local tariffs, which are managed by a tariff council that includes the Ministry of Economics as well as other ministries, are being kept at a low level in order to make them affordable. As long as local tariffs are kept artificially low and cross-subsidised by other types of revenues, in particular from international call revenues (which are still subject to special rights), this key component of full liberalisation will remain out of reach.

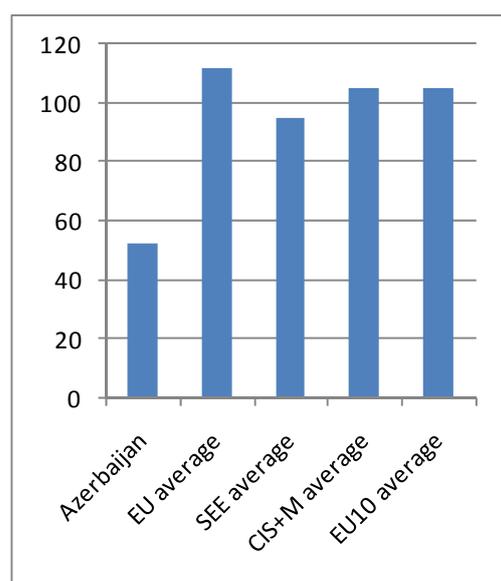
h) Assessment

Azerbaijan is deemed to have "Low compliance".

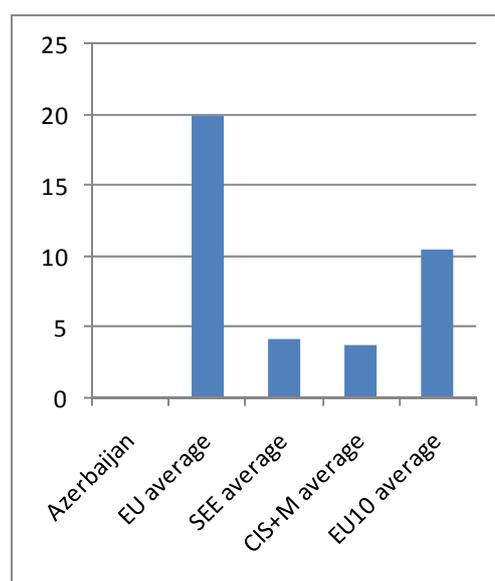
### Key indicators for Azerbaijan



### Regulatory spider diagram



### Fixed network penetration



### Mobile network penetration

### Broadband network penetration

(Penetration less than 1% is not shown on this chart)

For details of the definitions of the main terms used in these graphics, please refer to "Explanation of assessment and results" in Section II of this report.

## 4. Belarus

### a) Institutional framework

The Ministry of Communications and Informatisation (the "Ministry") is responsible for regulatory as well as the ministerial functions in the telecommunications sector.

The Ministry is a founder of the Republican unitary enterprise (RUE) "Beltelecom", which has a status of the national operator of telecommunications, and exercises the functions of authorised regulatory body to this enterprise. The Ministry also manages the state-owned shareholding in

the statutory fund of the Closed Joint Stock Company “Beloruskaya set telekommunikacii – Belarusian Telecommunication Network”, Shareholdings in the statutory funds of mobile operators MTS and BelCell belong to RUE “Beltelecom” Velkom, which is wholly owned by Telekom Austria, is the only privately owned company.

Decisions by the Ministry may be appealed to national courts.

b) Regulatory independence

Since the regulatory functions are carried out by the Ministry, it is clear that regulatory independence, as it is understood in the WTO reference paper, does not exist.

A regulatory department within the Ministry was established recently, on 1<sup>st</sup> November, 2007. During 2007 it started being staffed and began working. Discussions about making it an independent authority are mooted for 3-4 years from now.

In the case of Beltelecom, the privatisation process has not started... Tariffs for residential local calls are below-cost. The government would like to maintain such low tariffs in order to ensure that fixed voice services are affordable for all. On the other hand, Beltelecom’s prices for international calls are rather high, as are Internet access charges. This allows Beltelecom to subsidise loss-making services and remain a revenue-generating enterprise.

This tariff structure remains a key barrier to the development of a fully competitive market.

c) Market access and authorisations

Belarus has a regime based on individual five year licences for the following types of telecommunications activities: fixed local/national telephony, mobile telephony, radio trunk transmission, data transmission. Officially, IP telephony it is not allowed although, in reality, it is offered by some of the Internet providers.

Licensing terms and conditions, depending on the communications services provided by the licensee, are defined in the Regulation on licensing of activities in communications adopted by the Resolution of the Council of Ministers of Belarus dated October 20, 2003 No. 1387 (revised Resolution of the Council of Ministers of Belarus dated December 29, 2007 No.1903). In the abovementioned resolution there are 18 communications services defined, which constitute the licensed activities, including 15 services of telecommunications.

In accordance with the Article 44 of the Law of Belarus “On Telecommunications” dated July 19, 2005 No.45-3, the incumbent has the exclusive right to carry international traffic and connection to the telecommunication networks of foreign countries.

To date, the Ministry of Communications and Informatisation issued 100 licenses to provide services of local telephone connections, and 7 licenses to provide services of national telephone connections (among licensees there are mobile operators).

Radio frequency spectrum allocation is carried out by the State Commission on Radiofrequencies under the Security Council of Belarus.

Of the licensed alternative operators for local/national fixed services, none of them have started to provide services yet as they would likely be unable to compete with the low tariffs of Beltelecom. Licensed alternative operators are waiting for changes in the commercial environment (for example, privatisation of Beltelecom) to be able to compete.

Frequency allocation fees for radio spectrum are low and affordable for mobile operators. Frequencies are evenly distributed among the 4 mobile operators.

The government is considering the tendering procedure for 3G licences.

d) Significant market power

The term of «market power» is used in the acts of the antimonopoly legislation of Belarus. Issues concerning prevention of possible anticompetitive actions of businesses are regulated by the acts of the antimonopoly legislation of the Republic of Belarus.

There is not yet a sector-specific regulatory framework in place to determine significant market power.

e) Competitive safeguards

Few, if any, competitive safeguards as they are understood in the WTO reference paper are yet available in Belarus. For example, interconnection tariffs are not regulated, and on one occasion when MTC and Velkom (mobile operators) could not reach agreement on interconnection tariffs, the dispute was resolved through an ad hoc decision by the Regulatory Department. In that case the Regulatory Department reached a compromise that was deemed acceptable by MTC, the complainant.

In accordance with the Article 4 of the Law of Belarus «On Telecommunications» dated July 19, 2005 No.45-3, one of the principles of activities in telecommunications is: priority of the rights and legitimate interests of users of telecommunication services, and equal rights to receive telecommunication services. According to the Article 44 of the abovementioned Law, the national telecommunication operator is obliged to provide interconnection for other operators of public telecommunications, as well as interaction between telecommunication networks.

There are approved plans on the introduction of number portability.

f) Universal service and consumer issues

The legislation of the Republic of Belarus provides tender procedures for the purpose of choosing telecommunication operator to get a right to provide universal telecommunication services. Regulation on tendering procedures for the right to provide universal services approved by the Resolution of the Council of Ministers of Belarus dated August 17, 2006 No.1053 stipulate that tender is carried out based on fair competition principle. When there are no applicants, the responsibility to provide universal telecommunication services is imposed on the incumbent.

In Belarus there is a target to provide access to the local telephone communications in rural localities. Under fulfillment of this tasks, apart from the fixed networks there are technologies used of wireless access of standard CDMA 2000.

Beltelecom is the universal service provider. The government would like Beltelecom to cover 100% of the territory of Belarus with fixed lines, though this goal has been (unofficially) criticised by mobile operators who are obliged to contribute to a universal service fund expected to finance the government's goal for Belarus.

g) Outlook

The existing licensing regime allows fixed and mobile operators and Internet services providers to enter the market without any serious barriers, and to compete freely.

Mobile operators and Internet service providers have benefited from this regime and appear satisfied with the current state of affairs.

However, although several alternative operators have been registered for fixed telephony, only Beltelecom is active in the market. Unless Beltelecom is privatised and/or international traffic is open to competition, Belarus cannot be considered to have anything approaching a liberalised market.

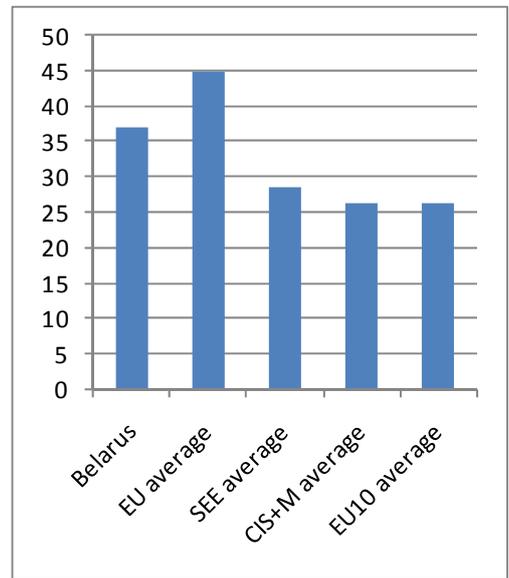
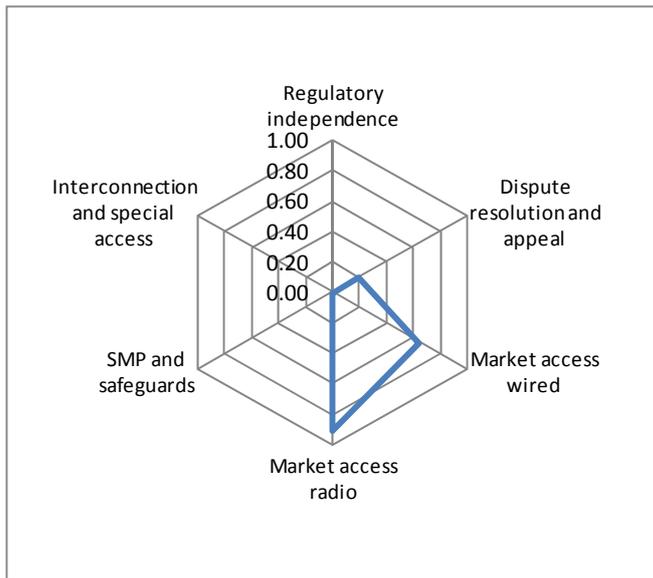
Privatisation is discussed unofficially and at academic/stakeholders' conferences but no official plans have been published to date. The government's focus has moved away from Beltelecom's privatisation in recent times and the following priorities have emerged:

1. maintaining low tariffs for national calls in order to make them affordable;
2. digitalising Beltelecom's network;
3. developing a regulatory framework that will allow Beltelecom to offer IP TV and triple play services.

h) Assessment

Belarus is deemed to have "Low compliance".

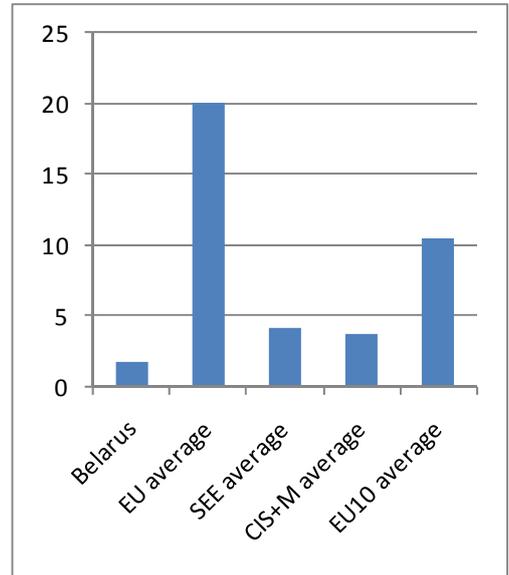
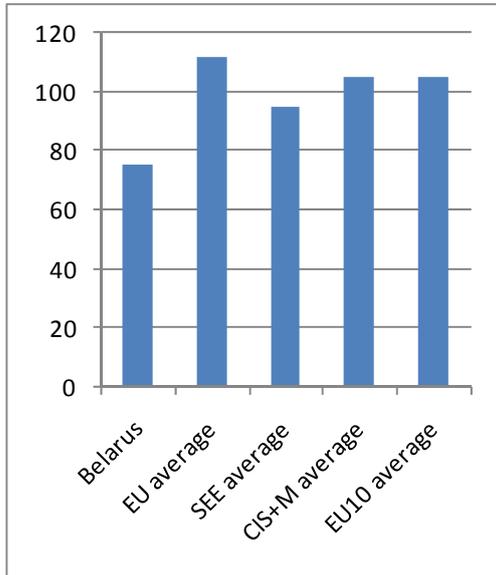
### Key indicators for Belarus



Regulatory spider diagram

Fixed network penetration

Note: Belarus has been marked down for the universal service indicator because of lack of technology neutral designation of universal service providers and for high “universal service tax” on the operators. This is not reflected in the spider diagram above.



Mobile network penetration

Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

## 5. Georgia

### a) Institutional framework

The Georgian National Communications Commission (GNCC) regulates the telecommunications sector. GNCC is governed by comprehensive rules on independence, transparency, consultation and conflict of interest avoidance.

The Telecommunication and Information Technology Department of the Ministry of Economic Development is responsible for government policy development, monitoring communications and ICT state policy and its development strategy, e.g. the creation of a national development plan for the ICT sector and some responsibilities on numbering management.

### b) Regulatory independence

In 2005, the Law on Electronic Communications provided transitional provisions that repealed the earlier law on Post and Telecommunications. The Commission is independent from the relevant ministries of government. The President of Georgia appoints its members for the period of six years and only these commissioners can select, appoint or dismiss employees of the organisation.

The funding of GNCC comes directly from regulation fees paid by the industry. This serves to ensure that GNCC remains independent from the government and also provides the necessary resources to fully perform its tasks.

A strict set of rules is in place to avoid conflicts of interest. For instance, an employee of the GNCC, or close relatives of employees of GNCC, cannot have any direct or indirect economic interest or receive any income or other benefits from licence holders, or hold any position in the business of a licence holder.

### c) Market access and authorisations

In Georgia, licences are required for fixed and mobile operators, cable TV operators and Internet service providers. Foreign providers have no restrictions to establish businesses in the market. Licensing obligations are based on the 1999 Telecom Law and the Law of Georgia on Principles for Issuing Entrepreneurial Licences and Permits (2002). However, the licensing regime is generally perceived to be cumbersome.

There are some basic problems, such as the absence of a technology and service neutrality principle embodied in licensing requirements in the 1999 Telecom Law on Communication and Post. In particular, all the technologies requiring licensing are specifically listed, meaning that any new technology would not automatically be covered, which may hinder innovation in the sector. General authorisations are provided for in the Law on Communications and Post, but the industry generally considers that requirements are too narrow to be of practical value. Applicants must provide a wide range of documentation in order to obtain an authorisation.

GNCC deals with licensing infringements in two ways – with fines and the revocation of licences. Licences can be revoked if the licence holder;

- makes technological and structural changes in its technical facilities without the agreement of GNCC;
- violates regulations, established by existing legislation in the sector;
- contravenes the rules determined by international agreements or breaches the rules laid out in the Georgian laws;
- breaches in any other way the rights and freedom of the people, lawful interests and puts the life and health of the people in danger;
- does not maintain a quality of service which corresponds to its licence obligations.

Article 20 of the 1999 Telecom Law grants GNCC the right to assess available spectrum and allocate it with the assistance of other agencies, assign radio frequencies, monitor compliance with conditions of licences and take appropriate action in case the law has been violated.

The GSM players operating in the mobile market are Geocell (TeliaSonera), GSM Magticom (Magti), and the latest entrant, Beeline (VimpelCom). Telenet provides wireless local loop services, Internet access services and holds CDMA 450 and CDMA 800 licences.

Three 3G licences have so far been awarded (by auction) – a first licence was awarded in June 2005, a second in February 2006 and a third in May 2006. So far, four nationwide licences have been awarded for 3.5 GHz frequency for the provision of WiMax services.

d) Significant market power

The concept of significant market power (SMP) was introduced into Georgian communications legislation by the 2005 Law on Communications. Operators are determined by GNCC as having SMP if “*the authorised undertaking has no competitors, is protected from significant competition or that the authorised undertaking's competitive market position enables it to unilaterally make a significant influence restricting competition in this segment of the market*” (Article 2). SMP operators are required to ensure non-discriminatory, cost oriented and access to unbundled network elements.

United Telecom Georgia (UTG), the Georgian incumbent local fixed line operator, was designated by GNCC as having SMP in fixed termination, local loop, passive infrastructure (ducts), local calls and call origination.

e) Competitive safeguards

In Georgia, communications legislation embodies detailed obligations on co-location and sharing of facilities. Communications providers are required to provide collocation on fair, reasonable and non-discriminatory terms. GNCC ensures rights of access to infrastructure such as ducts, and network elements, as well as unbundled lines.

Interconnection pricing is left to commercial negotiation and GNCC only intervenes when decisions cannot be reached in this way.

The Georgian Law on Electronic Communications 2005, under articles 41 and 42, establishes the procedures for dealing with interconnection disputes. A more detailed procedure is described by GNCC Decree 6 on the Approval of the Charter on Interconnection. The process of dispute resolution has rigid time limits in order to minimise the disruption caused by the dispute.

Instead of requiring the publication of a Reference Interconnect Offer (RIO), GNCC regulates the most important aspects of interconnection pricing, including line rental for LLU and ducts access.

Carrier selection is available, although operators have expressed concerns about the management of numbering resources for this purpose. Carrier pre-selection is not available yet.

f) Universal service and consumer issues

Following the EU Universal Service Directive (2002/22/EC), GNCC established rules for the provision of universal service in Georgia in September 2005. However, the regulator still has to implement the rules on universal service and impose a universal service obligation on the former incumbent fixed line operator (UTG).

g) Outlook

Although continuously improving, the electronic communications infrastructure and equipment in Georgia remains outdated because of decades of insufficient investment, making traffic management overly complicated, allowing some traffic to be carried and/or terminated illegally (without the requisite payment) by some operators.

Mobile communications, in particular, have become increasingly important because of the inadequacy of the fixed line facilities provided in many places (particularly in rural and remote areas). However, Georgia's telecommunications market has improved considerably in the last

couple of years and should continue this trend, with rising revenues and increased investment in infrastructure<sup>7</sup>.

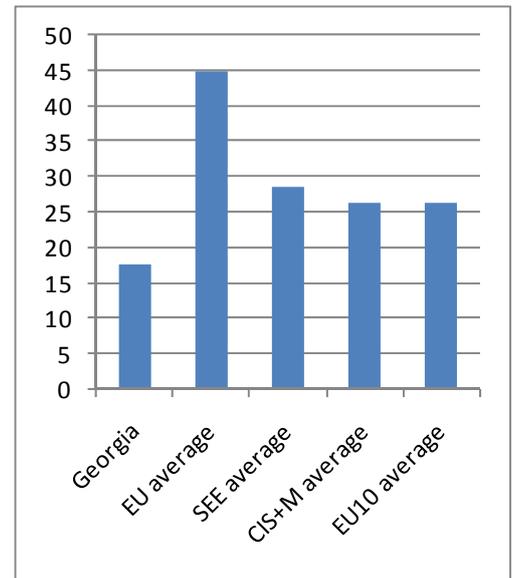
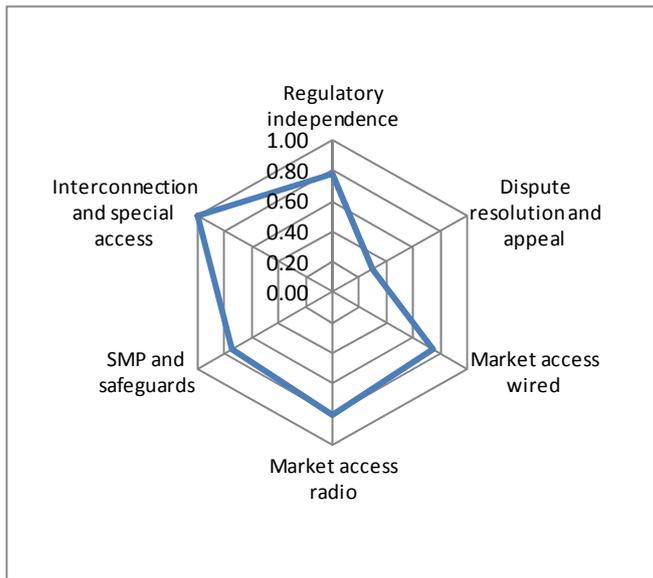
h) Assessment

Georgia is deemed to have “High compliance”.

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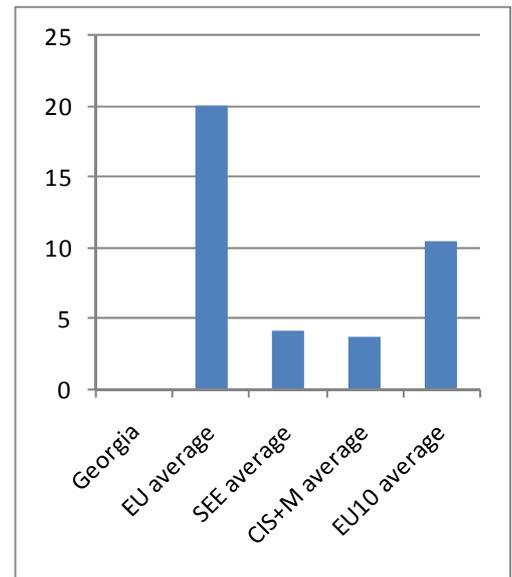
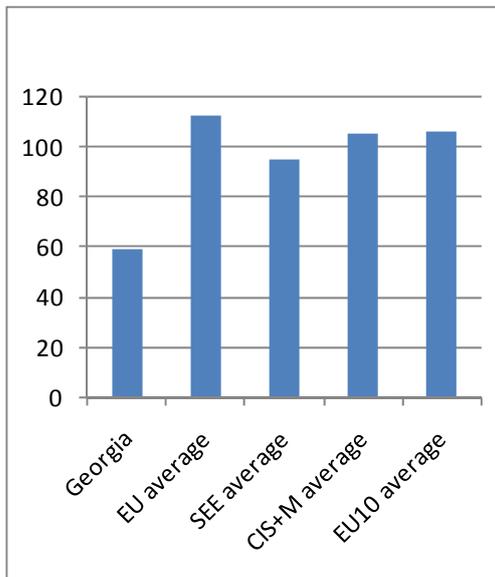
<sup>7</sup> The military conflict in August 2008 has created some uncertainty with regard to level of investments in general in Georgia. However, the mobile communications sector is one field where the investment level has been relatively unaffected by the conflict.

Key indicators for Georgia



Regulatory spider diagram

Fixed network penetration



Mobile network penetration

Broadband network penetration

(Penetration less than 1% is not shown on this chart)

For details of the definitions of the main terms used in these graphics, please refer to "Explanation of assessment and results" in Section II of this report.

6. Kazakhstan

a) Institutional framework

Until 2007, the telecommunications sector was regulated by three separate entities;

- Agency for Communications and Informatics (AIC): Technical regulation and Universal Service
- Agency for Natural Monopolies (AREM): Interconnection
- Committee for the Protection of Competition (CPC): Assessment of dominance and application of retail tariff regulation. The CPC was replaced by the Agency for Protection of Competition (APK) earlier in 2008.

In 2007 all relevant powers to regulate the sector were given to the sector regulator AIC. Although regulatory actions have been attempted by all three bodies since the opening of the market in 2004, very little has been implemented and the sector continues to be heavily dominated by the incumbent KazakhTelekom. It maintains a fixed market share of over 90% and has significant ownership stakes in 3 out of the 4 mobile operators. KazakhTelekom is 51% owned by government.

AIC and CPC have both tried to apply relevant regulatory measures to control KazakhTelekom's market dominance using the existing laws on telecommunications and competition, unfortunately to little avail. New regulatory methods and procedures are understood to be under preparation. Though the market for communications in Kazakhstan is formally liberalised, the absence of meaningful control on KazakhTelekom's dominance has made market entry or survival for competitive operators difficult, if not impossible.

Therefore, the market continues to show slow progress on consumer choice, competitive investment and new services.

#### b) Regulatory independence

Before 2007, the three regulatory agencies that had powers in the telecommunications market appear to have acted with little coordination between each other. Since 2007, when all the necessary powers were transferred to the sector regulator, AIC, it attempted to take independent action but no significant reforms have yet been implemented.

The government controls 51% of the dominant incumbent operator KazakhTelekom through its Samruk Holding organisation. Samruk also owns 100% of one of KazakhTelekom's competitors, TransTelekom.

In the past, regulatory measures have been attempted by the Committee for the Protection of Competition (CPC) against joint dominance in the mobile sector to reduce the high retail tariffs, but, in the end, this action was unsuccessful. The new Competition Agency (APK) remains concerned about excessive concentration in the mobile sector by KazakhTelekom. The sector regulator AIC has produced progressive regulatory proposals for retail tariff rebalancing, market access and interconnection charging but these have not been implemented by KazakhTelekom.

As the necessary market remedies have not been implemented, regulatory independence is still only a theoretical concept in Kazakhstan.

#### c) Market access and authorisations

Kazakhstan has a regime based on individual licences for all types of telecommunications activities such as fixed telephony, mobile telephony, IP telephony, radio trunk transmission, data transmission, Internet services, etc.

There is still only limited competition in the carriage of international voice services.

The licences that are granted are typically quite specific in terms of which activities may be carried out and an operator may need several licences in order to provide a given basket of services.

Operators are investing in network infrastructure, with fixed networks including fibre, NGN and fixed wireless. Mobile services are GSM or CDMA, 3G licences have yet to be awarded. A large part of the frequency spectrum remains controlled directly by the military.

The incumbent fixed operator has been slow to launch new services, with Internet still predominantly dial-up. During 2008, basic broadband speeds have been increased and demand is now strong. Unfortunately, KazakhTelekom refuses all attempts at Local Loop Unbundling,

which would allow alternative operators to compete effectively in the broadband market, so this strong demand remains mostly unsatisfied.

d) Significant market power

The Competition Agency has used a simple 35% market share rule to assign KazakhTelekom with dominance in all telecommunications markets. Under competition law it has powers to restrict anti-competitive behaviour of SMP operators, but all attempts to apply this law to the telecommunications sector (against joint dominance in the mobile sector and against monopolistic retail tariffs in the fixed sector) have been unsuccessful.

e) Competitive safeguards

Few, if any, competitive safeguards, as they are understood in the WTO reference paper, have been implemented. The independent sector regulator, AIC, is understood to have all the necessary powers to regulate telecommunications under the Law on Telecommunications (2004). These powers are reinforced by the Competition Agency using the Law on Competition (2006), providing a formidable arsenal of regulatory tools. However, in practice the entrenched position of KazakhTelekom, allied to inaction by the regulator results in little change in the status quo.

The interconnection rules were devised in 2004 by the Agency for Regulation of Natural Monopolies and the dominant operator's wholesale call termination charges are still high. Different charges are published on KazakhTelekom's website and apply to different types of interconnecting operators. In some cases, these are based on revenue sharing, rather than costs. In other cases, where charges are supposed to be based on costs, the costs are very high by international comparisons. There is no formal Reference Interconnection Offer and there are still barriers because of KazakhTelekom's technical capacity.

Local Loop Unbundling is not specifically mentioned in any legislation, and so far KazakhTelekom has refused to co-operate on this point. Attempts are being made to amend the existing legislation to strengthen the legal basis for LLU.

Some limited carrier selection services are available to consumers using pre-paid scratch cards for dial-up Internet and VoIP access. Although carrier pre-selection is being considered by the sector regulator, there are not yet any established plans for introduction for this safeguard, nor are there any firm plans to introduce number portability.

f) Universal service and consumer issues

KazakhTelekom has been assigned an obligation to provide universal services of defined basic types in urban and rural areas of a certain population.

The government's general State Fund receives payments only from fixed operators with national licences. Most of this money is transferred to KazakhTelekom to compensate for its loss-making residential line rentals. No attempt has been made under existing universal service procedures to discriminate in favour of low users or to fund significant expansion into rural areas.

g) Outlook

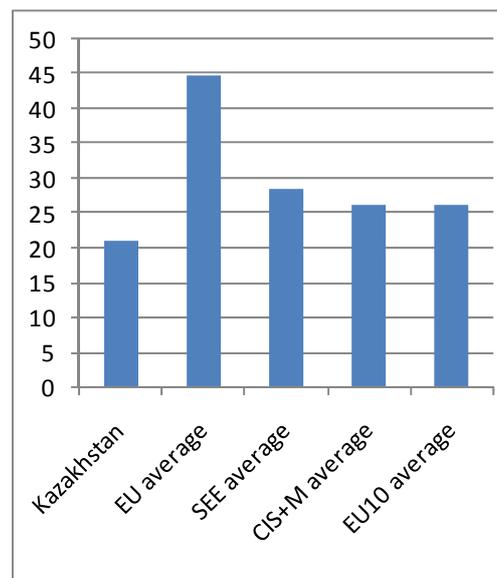
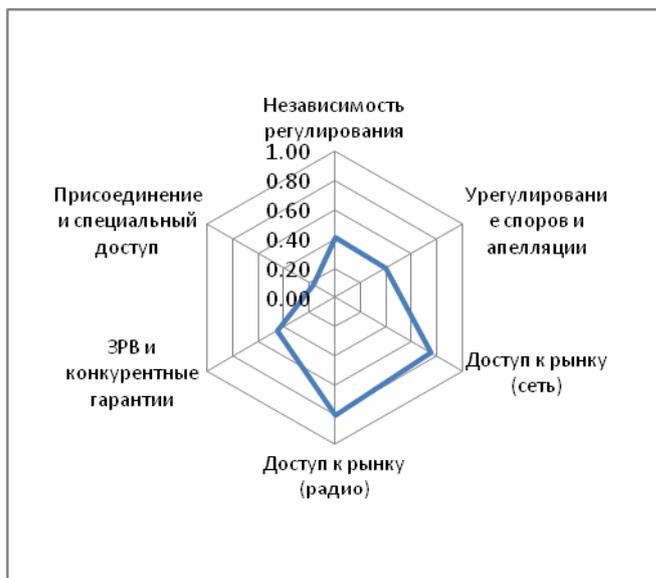
Although official government policy and existing legislation is pro-competitive, little has so far been implemented to ensure that the telecommunications market operates competitively. In essence, the sector regulator needs to be able to implement the required reforms with positive and active support from government. The most urgent reforms are retail tariff rebalancing and reductions in interconnection charges, plus the introduction of competitive safeguards for alternative operators such as carrier pre-selection, number portability and Local Loop Unbundling. Until the government accepts these reforms (as proposed by AIC and backed up by the Competition Agency), little real progress will be made.

While the growth of Internet usage and demand for broadband services has dramatically increased during 2008, (KazakhTelekom recently reported an increase in its broadband subscriber base from 270,000 to 456,000), the absence of meaningful competition in the market leaves significant unsatisfied demand and stifled innovation.

h) **Assessment**

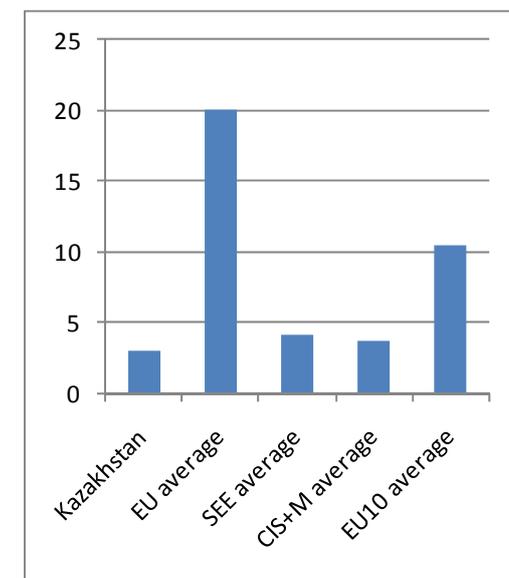
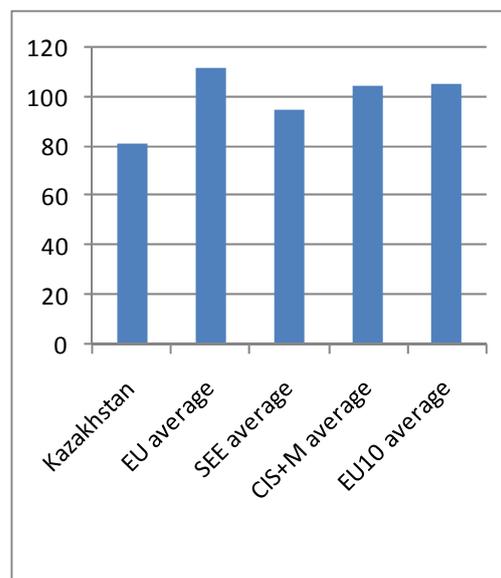
Kazakhstan is deemed to have “Low compliance”.

### Key indicators for Kazakhstan



Regulatory spider diagram

Fixed network penetration



Mobile network penetration

Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

## 7. Kyrgyz Republic

### a) Institutional framework

The communications sector is regulated by the National Communications Agency (NCA), the Director of which is appointed by the President of the Kyrgyz Republic. It is financed independently by fixed percentage contributions from operators. NCA issues licences and monitors them in operation favouring a progressive consultative approach to regulation. In the existing Law on Communications and under amendments to that law that are being drafted, the

Ministry for Transport and Communications (the "Ministry") is responsible for development of policy in the sector.

Incumbent operator, KyrgyzTelekom, is 77.84% owned by the state. The government has stated its intention to fully privatise KyrgyzTelekom and is understood to be actively preparing for the privatisation of this remaining stake.<sup>8</sup>

The legal framework is understood to be under revision, with amendments to close gaps on interconnection regulation, spectrum management, and practical implementation of the law ongoing. Amendments to the 1998 Law on Electronic and Postal Communications are being drafted by a working group, which includes wide representation of stakeholders. This should be forwarded to Parliament in late 2008. In early 2008, NCA developed and implemented new access, interconnection, and tariffing regulations based on international best practice, after extensive consultations with sector stakeholders.

Operator disputes can be settled by NCA, with a relatively effective consultation process and ultimately the operators have the right to appeal decisions to the courts. Despite, NCA's resolution of disputes in the past, the technical capacity of the regulatory agency to resolve disputes is still notably limited.

b) Regulatory independence

The existing law separates the Ministry from NCA; the latter being established as an independent agency in 1997. The general view of investors and operators is that the regulatory environment works relatively well, often better than in other Central Asian countries.

c) Market access and authorisations

Mobile and data services have been liberalised for an extended period so that there is now strong competition in these sectors. However, data transmission, particularly outside the capital, Bishkek, is hindered by poor KyrgyzTelekom infrastructure. Within Bishkek (and to a growing extent outside of Bishkek), competing operators have built their own networks, providing alternative infrastructure for data transmission. There is also growing competition in the fixed line sector, though substantially less than in the mobile sector.

All requests for radio spectrum allocation are considered by the regulatory agency where there is potential interest by more than one operator. Allocation of radio frequency spectrum, where demand exceeds supply, shall be subject to competitive procedures.

Licences for 3G mobile telephony have already been issued to three operators

d) Significant market power

The Competition Agency has delegated competition enforcement powers in the communications sector to NCA. NCA determines SMP, with legislation focusing on dominance, with a presumption of SMP at 35% market share.

SMP designated fixed operator KyrgyzTelekom is required to provide wholesale services without discrimination, using a Reference Interconnection Offer. There are no mobile operators designated as having SMP. A designation by the regulator of one of the mobile operators as having SMP in 2007 was later overturned in the courts after it was challenged by that operator.

e) Competitive Safeguards

Interconnection agreements are made between operators and where there are disputes the regulator has intervened and resolved these effectively.

The remaining exclusive rights of KyrgyzTelekom were removed in 2003.

There is no legal basis for Mobile Virtual Network Operators (MVNOs), but this does not mean that they are prohibited. No MVNOs exist so far.

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<sup>8</sup> The Government commenced a fourth attempt to privatize KyrgyzTelekom in mid 2008, As of October 2008, no winner had been announced.

Local Loop Unbundling is used by broadband providers to offer services to KyrgyzTelekom's local access line customers, but quality problems limit widespread adoption of such broadband technology.

Mobile number portability is being proposed, but is perhaps two years away.

Limited carrier selection services are used by customers to access dial-up Internet and VoIP calls.

f) Universal service and consumer issues

There is no defined Universal Service obligation, but options are being considered. Mobile telephony is now almost universal (i.e. universally available in populated areas), and the priority for universal service in the future will be Internet availability. There are 108,000 settlements, of which 550 are not served by fixed line. There is no universal service fund.

Customers pay low line rental charges per month with no local call charges for residential users. The existing legislation stipulates a "compensation mechanism", but KyrgyzTelekom does not use it. This is an area where changes to the law are required.

g) Outlook

The existing regulatory agency has a reformist agenda with good support in the sector. Some market analyses have been carried out by the regulator and appropriate remedies implemented.

The limited fixed market is now growing and becoming somewhat more competitive, with growth stimulated by Internet usage, particularly in the last 2 years. There is extremely limited availability of fixed line telephony outside the major cities, and many quality concerns.

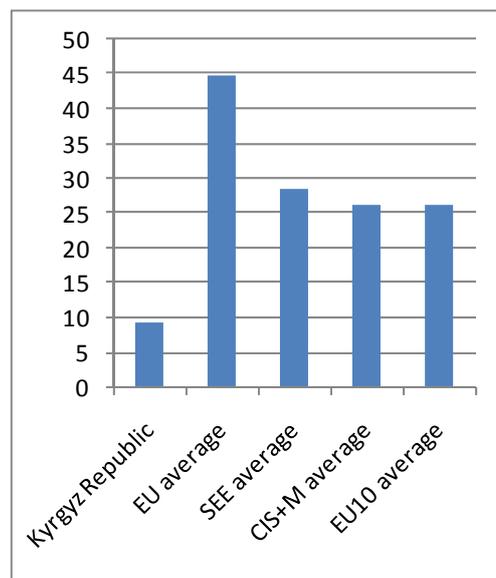
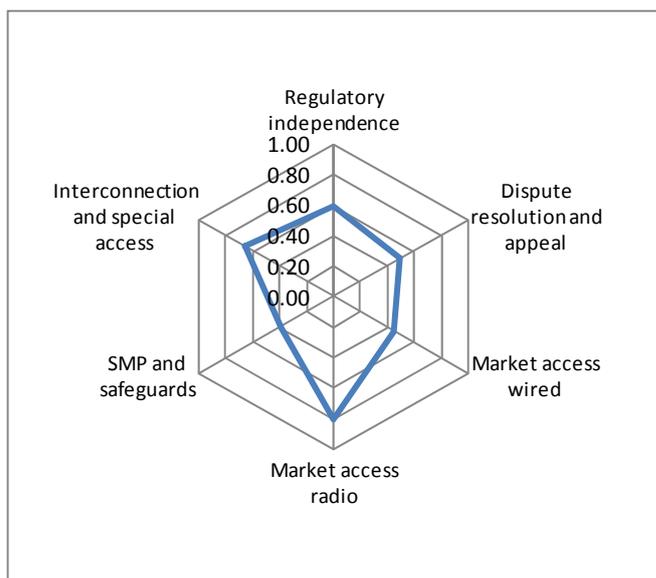
Outside the cities, only KyrgyzTelekom provides Internet access. Internet companies are not generally investing in their own networks, they prefer to lease the capacity of others. Outside Bishkek, only mobile companies have significant investments. Internet is not profitable outside Bishkek, there are quality problems and the cost of new infrastructure is high. As a result, there is extremely limited Internet availability outside Bishkek.

A retail tariff rebalancing plan was proposed in June 2008, which should now begin to improve investment in local infrastructure. The mobile market is developing quickly, financed by international investors. There are 2.5m subscribers and growing, with tariffs reducing.

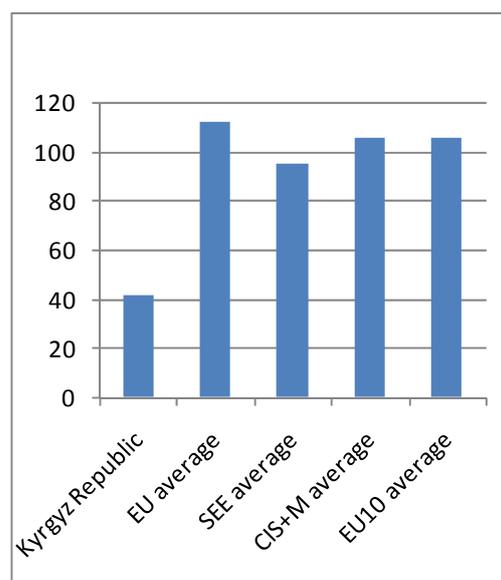
h) Assessment

The Kyrgyz Republic is deemed to have "Medium compliance".

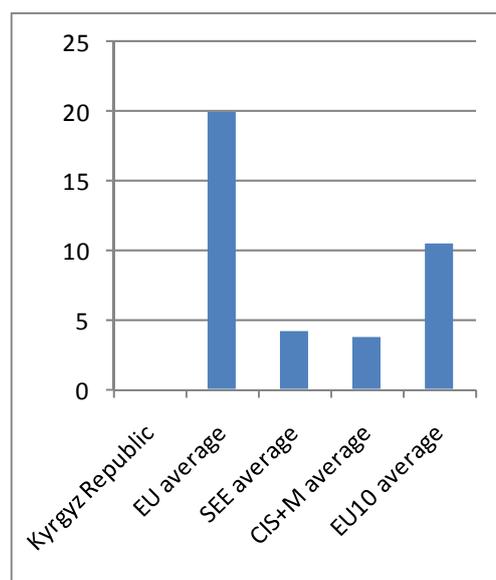
### Key indicators for Kyrgyz Republic



### Regulatory spider diagram



### Fixed network penetration



### Mobile network penetration

### Broadband network penetration

(Penetration less than 1% is not shown on this chart)

For details of the definitions of the main terms used in these graphics, please refer to "Explanation of assessment and results" in Section II of this report.

## 8. Moldova

### a) Institutional framework

The ANRCETI (National Agency for Regulation in Electronic Communications and Information Technology) is responsible for regulation of the electronic communications market, competition, development and consumer protection. This agency has sufficient investigation and decision power, although the sanctions it may impose are limited and the permitted fines are very low.

The agency's decisions may be appealed to the Administrative Court. The incumbent operator, Moldtelecom, systematically appeals ANRCETI decisions.

The Ministry of Information and Development (the "Ministry") is responsible for the policy to develop the ICT sector in Moldova and is understood to be drafting a new Policy Strategy 2009-2011 for release at the end of 2008.

The Ministry of Economy and Commerce controls 100% of Moldtelecom, the incumbent fixed operator which itself controls Unite, one of the four mobile operators. Unite was created in 2007 and has yet to make an impact on the market.

b) Regulatory independence

For the last two years, the regulator has been prevented from implementing the regulatory framework because of the lack of a decision-making quorum (only one out of the three members of the Board had been appointed by the government) but this problem was recently overcome with the appointment of a new Vice-Director (November 2007) and Director (April 2008). Chapter II of the 2007 Electronic Communications Law provides sufficient formal guarantee for the regulator's independence, but it remains to be seen how those provisions will be applied in practice.

The control of Moldtelecom by the State has impinged on the independence of the regulator and the Courts, which have not imposed strong access regulation (see for instance the Court of Appeal decision of 14 December 2007 which annulled an NRA decision to impose obligations on Moldtelecom). Many new entrants see a way forward with a well-designed privatisation programme. However, the Ministry of Economics and Trade's plans are unclear, especially after four failed attempts at privatisation.

c) Market access and authorisation

According to the WTO requirement, all telecommunications services have been liberalised (national data since 1993, international data since 1998, local fixed voice since 2001, domestic and long distance fixed voice since 2004), and no special and exclusive rights remain.

The market entry regime has been substantially reformed by Chapters IV and V of the 2007 Telecom Law. It is intended that the new regulatory regime introduced by the 2007 Law apply from September 2008 after finalisation of the implementing regulations.

This new regime provides for a free of charge general authorisation registration system, with annual regulation and monitoring fees of up to 0.3% (in 2008: 0.11%) of the annual revenues from electronic communication activities.

For scarce resources (radio frequencies and numbering), the new regime provides for individual licences fees that depend on the category of service. The allocation of radio frequencies is decided by the Ministry of Information and Development (through the dependent State Centre for Radio Frequencies) and then rubber stamped by ANRCETI. There are now four 2G licences of 15 years duration. It is intended that three 15 year 3G licences will be awarded during 2008<sup>9</sup>.

The allocation of numbers is under the responsibility of the ANRCETI, with an average allocation time of 12 days.

Some new entrants voiced concerns about obtaining right of ways over land in order to install network infrastructure. They cite a variety of problems, such as the granting of specific rights in this respect to the incumbent, the lack of transparency in procedures and the unclear division of responsibilities between the different state authorities in this area.

d) Significant market power

Chapter VII of the 2007 Telecom Law provides for a SMP regime that is broadly in line with the three steps of the EU framework in this area: identification and definition of relevant markets, designation of SMP, and imposition of remedies. However, some implementing measures have yet to be adopted by ANRCETI, in particular the Regulations on Identification and Analysis of Relevant markets (due for end 2008). Under the new system, ANRCETI will be responsible for

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<sup>9</sup> Moldova has now issued two 3G licenses to Orange and Moldcell. Moldcell launched 3G services on October 1, 2008

the three steps of analysis, SMP designation and taking appropriate remedies, and shall consult, where appropriate, with the national competition authority.

The analysis is currently shared between the competition and the regulatory authorities. In the fixed segment, in June 2007, Moldtelecom was designated as having SMP in the market for local, national and international fixed services. In the mobile segment, in December 2007, Orange, Moldcell and Unite/Moldtelecom were designated as having SMP in the market for call termination provided to their own mobile networks. The regulator is understood to be still working on the remedies to be imposed, in particular accounting separation and LRIC pricing.

e) Competitive safeguards

Moldtelecom is obliged to provide a non-discriminatory Reference Interconnection Offer, the last version of which was approved by the regulator after much delay and difficulty in December 2007. Some interconnection agreements are now in place, most of them have been agreed between Moldtelecom and IP telephony and data transmission operators. However, some new entrants have voiced concerns about insufficient access to Moldtelecom's network leading to inefficient duplication of infrastructure.

There is no specific Reference Unbundling Offer, but local loop unbundling prices are provided in the Reference Interconnection Offer. However, in practice, it is difficult to obtain unbundled lines (in particular because of the lack of space in the exchanges) and the regulator does not provide data on the number of LLU agreements or unbundled lines. It is believed that less than 1% of the lines have been unbundled.

Carrier selection and carrier pre-selection is not in place and there is no clear timescale for their implementation.

Number portability is not yet in place but a technical group inside the regulator is working on its implementation in two successive phases: first for mobile telephony (which is the most competitive market) and then for fixed telephony (which is the least competitive market).

f) Universal service and consumer issues

Chapter X of the 2007 Telecom Law provides for a universal service that is broadly in line with the EU framework. To make these provisions effective, implementing regulations need to be adopted by the regulator by the end 2008.

The scope of universal service covers low tariffs for local call services and access to emergency services. Universal service is provided by Moldtelecom for historical reasons and following a transparent and objective designation process. There is no compensation mechanism provided. The regulator plans to alter this methodology with the implementation of the new regime in 2009.

g) Outlook

The telecommunications regulatory framework in Moldova is undergoing significant revision. In the recent past, the regulation was not actively promoting competition, in particular in the fixed sector although liberalisation has been in place since 2004. However, the NRA was hindered by the lack of a quorum, the competition authority was non-existent and the courts were reluctant to decide against the incumbent, which maintained its dominant power.

In 2007, a new telecommunications law was passed, a national competition authority was set up and the telecommunications regulatory agency was re-activated.

NB. A new Law on Electronic Communications was adopted in 2007. In practice, it requires secondary legislation before the new authorisation regime is fully implemented. It is foreseen that the necessary secondary legislation for market access will be put in place during the remainder of 2008. Therefore, the regulatory assessment carried out for Moldova reflects the fact that the country is still in transition while this report is being written.

When the 2007 telecommunications law is fully in place (i.e. when all the implementing measures have been adopted by the ANRCETI), Moldovan regulation will be broadly in line with the EU framework, at least on paper. The challenges are twofold.

- Firstly, the implementing regulations should be economically well-grounded taking into account the best practices around the world (in particular for market definition and analysis,

separate accounting, tariff calculation methodology, and universal service designation and funding).

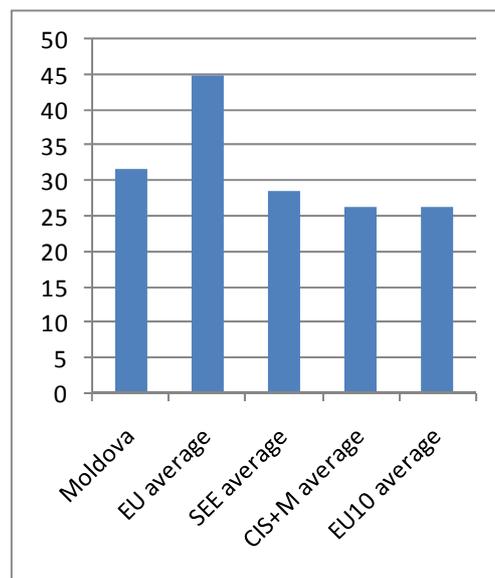
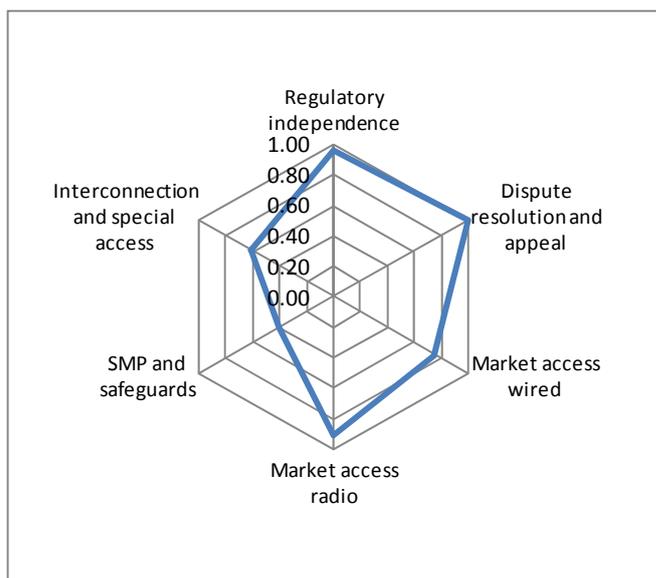
- Secondly, the law should be strictly applied in practice, which has not been the case up to now. Such application requires more independence of the regulator and the courts with regard to Moldtelecom.

It is only then that competition in the fixed segment, that has been very weak until now, could flourish and that narrowband and broadband Internet access could develop.

h) Assessment

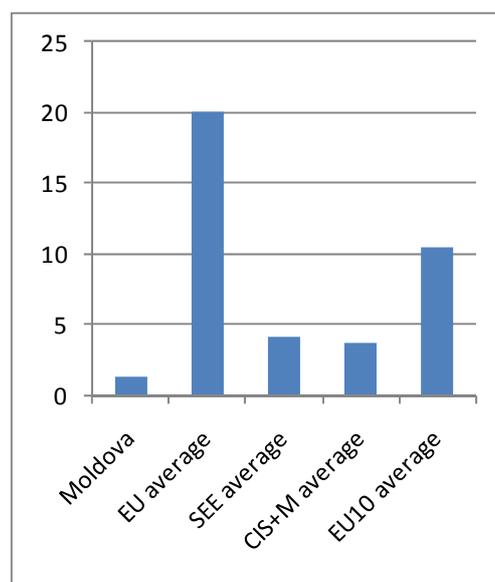
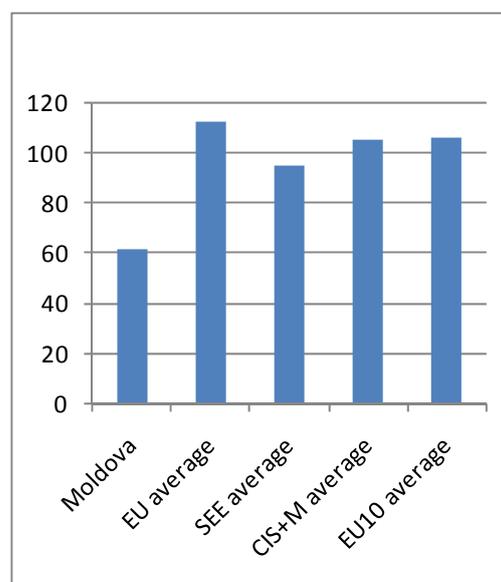
Moldova is deemed to have "Medium compliance".

Key indicators for Moldova



Regulatory spider diagram

Fixed network penetration



Mobile network penetration

Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

9. Mongolia

a) Institutional framework<sup>10</sup>

The Communications Regulatory Commission (CRC) is responsible for the whole range of regulatory functions in the telecommunications and ICT sector including licensing, numbering, SMP designation and operating conditions, interconnection and tariffs, spectrum management, radio

<sup>10</sup> Following the election of a new government in Q3 of 2008 it is understood that the institutional structure of the sector may be revised.

frequency allocation, dispute resolution, investigations, compliance including consumer protection, technical standards and the management of the universal service fund. It also provides inputs on policy formulation. The Information and Communications Technology Authority (ICTA) is responsible for the development and coordination of telecommunications policy. The ICTA is not a Ministry but has previously acted on a par with a ministry in terms of decision-making. It reports directly to the Prime Minister's Office.

The government has a 55% holding in Mongolia Telecommunication Company (MTC), with Korea Telekom possessing a 40% stake and 5% belonging to private Mongolian citizens. The government holds 100% of the Information and Communication Networking Company (ICNC). Mongolia has introduced a privatisation programme and is considering reducing its interests in MTC. Privatisation of ICNC is under consideration but no plan has been agreed yet.

b) Regulatory independence

The Prime Minister nominates the Chairman and 6 non-executive Board Members on the basis of a proposal from the cabinet. The Chairman's term of office is for 6 years and may be renewed once. The terms of office for Members are for 6 years. The Government ratifies the annual CRC budget and CRC will have its financial report published and audited annually.

The top management of the regulator can legally own up to 20 percent of common stock of a telecoms operator but it is hoped this allowance will be removed by a new code of conduct. CRC is financed through licence fees, regulatory service fees, and spectrum usage.

The Chairman and Members of the regulatory board have State Inspector rights, which have recently been strengthened. However the existing level of maximum fines allowed in the law is insignificant and provides little deterrent. CRC may also revoke a licence.

There is no legal requirement to perform a public consultation before making regulatory decisions. There is also no legal requirement for publication, but a website has now been established as the source for consultations. No timescale exists under the law, but CRC procedures suggest 6 weeks for comments.

c) Market access and authorisation

More recently, the CRC has encouraged fair competition in defined markets, partly through increased transparency in its decision-making process. This idea has also been extended to the policy-making body through key amendments proposed to the law and sector restructuring work. As a result, and for example, where the proposed amendments to law are taken onboard previous unilateral and opaque decisions to deny MTC a mobile licence, without any reason that could be defended publicly, should not be possible.

The Law on Communications 2001 liberalised the telecommunications market, although there is evidence that certain sectors (such as mobile telephony) were liberalised, to an extent, before 2001. The public fixed telephony market is technically a liberalised market but there is limited competition. MTC has the vast majority (94%) of fixed lines, with Railcom – a subsidiary of the national railway company – possessing a limited market in a small region (along its rail corridor).

For data services, competition has been realised through the entry of one or two competitive ISPs into the broadband business (a few thousands only), with reasonably strong CRC (and ICTA) support, but mainly (in terms of number of customers) through the emergence of mobile operators with related ISP operations and two WiMax operators over the past two years.

Authorisation is by individual licence. A new licensing regime was introduced in Mongolia in January 2008; however it is still in the process of being implemented by CRC. It emphasises technology neutrality and unification of old (separate) licences. The fees are to be set at a low rate so as not to dissuade entry/investment.

Under CRC's procedure, frequency licensing should allow "first come first served". According to the Radio Frequency Law, a tender will be announced if there are 2 or more bidders. This is reflected in the tender's conditions. CRC determines the annual fee which depends on the power of the transmitters.

The Law of Communications 2001 offers wide-ranging (general) dispute settlement powers. There is no appeals body *per se*; the court may be referred to if there is a dispute.

d) Significant market power

MTC's local loop was separated off to the new government-owned network company, ICNC, (by government action, not CRC), ostensibly because of MTC's perceived abuse of dominance. There are no restrictions on the collection of information to carry out market analyses. SMP is based on either anti-competition agency or CRC analysis, using 33% market share thresholds. Regulatory reform and the proposed new law make CRC the only agency to apply remedies in terms of telecommunications service practices. CRC has discretionary powers to choose from a set of remedies defined by law. Regulatory action has been taken on retail prices and wholesale termination rates.

e) Competitive safeguards

Ignoring normal procedures, MTC was denied spectrum in the past, while G-Mobile – a Mongolian owned and newly-formed fourth mobile operator in Mongolia – were allocated national spectrum, including the capital city and all other urban areas, after they won a tender which was supposedly limited to rural areas. This decision was disputed by other operators on the basis that the decision-making process was not sufficiently transparent. Furthermore, information about the distribution or assignment of frequencies for special uses continues to be less than transparent. Information about users of frequencies for public use (radio, TV, telephony) is open to public viewing.

CRC examined the possibility of adding MVNOs in a consultation in March 2007, but decided not to allow them because of the number of mobile operators already in a small market.

Carrier selection is available for national and international calls, but the introduction of carrier pre-selection was rejected after market consultations in 2007. The same consultations identified number portability as relevant for further examination with the possibility of implementation.

f) Universal service and consumer issues

Mongolia's universal service funding programme is now well established. Commencing with technical assistance and seed finance from the World Bank to develop the strategy and introduce competition, a universal service fund is also rolling out competition to deepen penetration and availability of service country-wide. There is also a World Bank funded universal services programme whereby communication services are being brought to rural areas by all mobile providers. Every district will have at least one mobile operator by early 2009. There is also a universal access programme to subsidise placement of Internet points of presence in district centres judged to have a chance of sustainability after an initial "smart subsidy". Licences are for a maximum of 20 years. The new licensing programme requires equivalent terms wherever possible.

g) Outlook

Fixed penetration is only 6% and mobile penetration is around 46%. Broadband penetration has not reached 1% yet. Although technically liberalised, little or no competition has emerged in the fixed line market and growth (and competition) has been through wireless services. The main fixed line incumbent was split between network and service elements (including its licence provisions). Although there are no legal restrictions to new entry, because of the market's small size there are likely to remain competitive hurdles such as start up costs, implying that the incumbent and dominant operators will most likely remain entrenched.

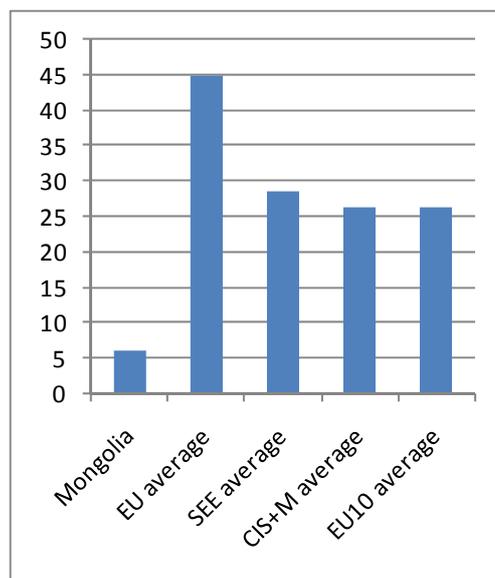
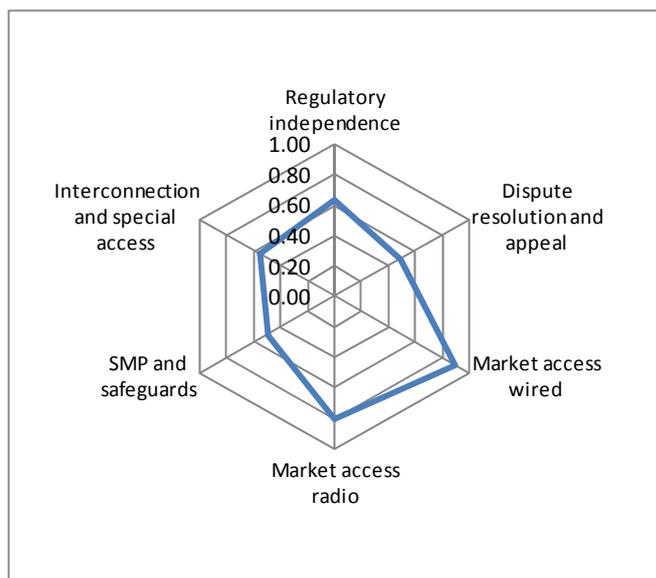
A major success story is the innovative use of competitive universal service funding processes to increase investment in rural areas. Although it is a sparsely populated country with challenging geography, the Mongolian experience can teach many of its CIS neighbours how to implement a successful universal service policy by energising and motivating a nation's existing licensed operators.

h) Assessment

Mongolia is deemed to have "Medium compliance".

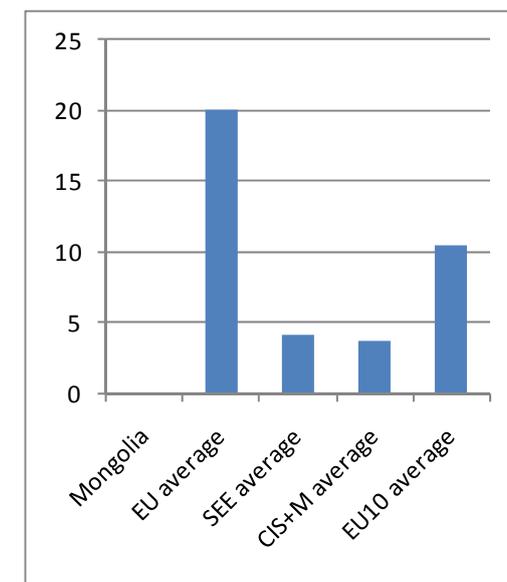
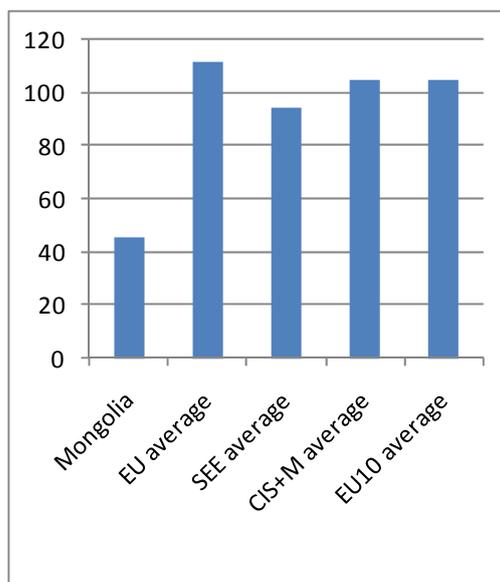


### Key indicators for Mongolia



Regulatory spider diagram

Fixed network penetration



Mobile network penetration

Broadband network penetration

(Penetration less than 1% is not shown on this chart)

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

## 10. Russian Federation

### a) Institutional framework

The Ministry of Telecommunications and Media Communications (the “Ministry”) consists of three agencies;

- the Federal Agency for Post and Communications;

- the Federal Agency of Information Technologies;
- the Agency of Press and Mass Communications, as well as the Federal Supervisory Service on Telecommunications and Mass Communications.

The Ministry of Communications of the Russian Federation carries out coordination and control of activities of Federal supervisory service in the communications sector, Federal agency of information technologies, Federal communications agency, Federal agency for post and communications and other organizations accountable to the Ministry.

Therefore, the Ministry has the powers to regulate telecommunications and mass media. The Federal Supervisory service has control over the Central Radiofrequency Centre and the radio frequency centres of seven federal districts.

The fixed market was effectively liberalised in 2006, when the long-distance market was finally opened.

b) Regulatory independence

The Ministry of Communications of the Russian Federation is a federal body with executive power that carries out functions of developing and realization of state policy and regulation in the sector of information technologies (including the use of information technologies when creating state information resources and arranging access to them), radio communications (including the use and conversion of the radio spectrum), postal communications, mass communications, including electronic (including the development and use of the internet, TV and radio systems including digital systems and new modern systems in that area), print, publishing activities and personal data treatment.

In cases where the law has established tariffs on certain communications services, these tariffs are regulated by the Federal services for tariffs. The Federal service for tariffs is an executive body in accordance with the legislation of the Russian federation.

The concept of regulatory independence does not exist, and government control of the sector remains.

c) Market access and authorisations

Licensing of communications services is carried out in accordance with the Federal Communications law of the Russian federation of July 7, 2003 No 126 (Chapter 6 "Licensing of activities in the area of communications conformity assessment") as well as the decision of the government "On the list of communications services, included in licences, and list of licence conditions" of February 18, 2005 No. 87.

Activities of legal entities and individual entrepreneurs in providing communications services are carried out only on the basis of an individual licence for the provision of communications services including fixed telephony, mobile telephony, IP telephony, radio trunk transmission, data transmission, Internet services, etc.

Although most types of services are open to competition, there is still only limited competition in the carriage of international voice services.

Around 40 licences have been issued for inter-city and international telephone communications, eight operators have started to provide such services: Rostelecom, Interregional Transit Telecom, Sovintel, Komstar-OTS, Synterra, Arktel, Equant, TransTeleCom.

The licences that are granted are typically specific in terms of which activities may be carried out and an operator may need several licences in order to provide a given basket of services.

There has been active investment in network infrastructure, and mobile phone penetration has risen dramatically in recent years, and now stands at over 120%. Fixed network investment includes fibre, NGN and fixed wireless, now with a rapid take up of broadband services, which are already used by around 19% of businesses and 3% of residential customers.

WiFi frequencies and digital TV frequencies were allocated in 2006. Three 3G licences were awarded in April 2007. The first operator claimed to be launching their service in early 2008 but this has been delayed until 2009.

d) Significant market power

Companies using more than 25% of the total numbering capacity or carrying more than 25% of traffic in the geographic numbering zone or across Russia are considered "significant companies", a concept similar to significant market power. Fixed line incumbent operators fall under this definition. Mobile operators and Internet providers are not included in the list; the former are operating in non-geographical numbering zones, the latter have no numbering.

For the designated companies, the Agency for Communications approves interconnection tariffs.

e) Competitive safeguards

Prices for calls termination and origination provided by operators with significant market power are subject to state regulation. The list of termination and transit services as well as their prices that are subject to state regulation are determined by the government of the Russian Federation.

Decision-making on radio spectrum allocations and radio frequencies is established by the state Commission of radio frequencies. Information on the allocation of radio frequencies is published on the Ministry's website.

Local Loop Unbundling is not available to competitive service providers. It is only used by subsidiaries of fixed line operators.

Carrier selection and pre-selection services were implemented in 2006, but number portability still does not exist.

Although MVNOs are not officially recognised, several services have opened<sup>11</sup>.

f) Universal service and consumer issues

In accordance with the Federal Communications Law of the Russian Federation of July 7, 2003 No 126 (Chapter 8 Universal communications) universal services are guaranteed in the Russian Federation.

Universal services include:

- Public payphones
- Data transfer services and provision of access to the Internet using public access points.

Universal services are provided by operators selected on the basis of a competition in the Russian Federation.

To reimburse the cost of universal service provision, a universal service fund has been created. It is financed by obligatory payments (non-taxable) of operators of 1.2% of revenues from the provision of communications services. These reserves can only be spent to reimburse the cost of universal service.

g) Outlook

Investors have focussed on developing their own infrastructure for mobile, fixed and broadband, and launching a range of new services including competitive triple play offerings.

Growth in services, investment and competition remains strong. The growth rates for mobile revenues in 2007 compared against 2006 was 120%. The corresponding growth rate for fixed services was 115%. The Internet subscriber base has grown roughly by 34% from 2007 to 2008.

Market regulation remains government controlled and generally behind market developments. The regulator should set up a more modern basis for *ex-ante* regulation, with less state restrictions in markets that already have effective competition. Regulation should focus on

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<sup>11</sup> In October 2008, the Ministry are considering giving official status to MVNOs and expect the first licences to be issued by end 2008.

competitive safeguards such as access (including local loop unbundling) and number portability<sup>12</sup>.

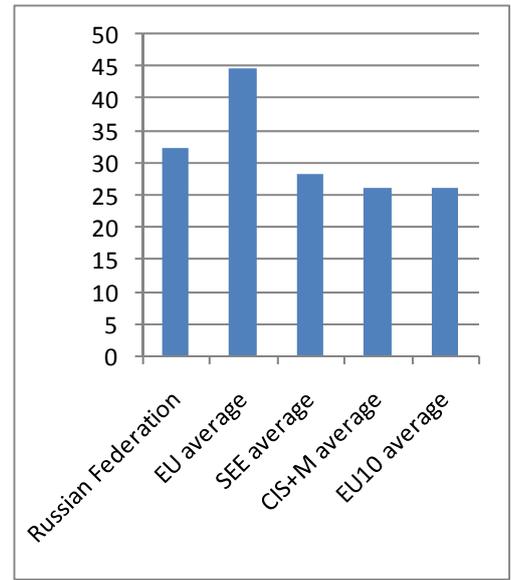
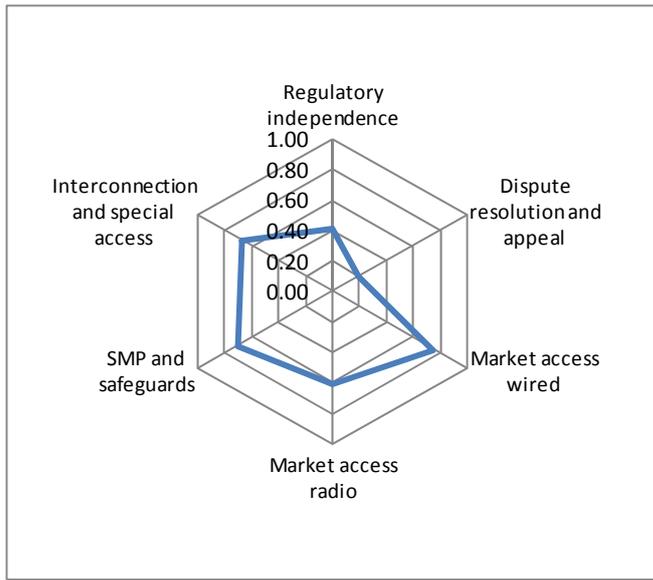
h) Assessment

Russia is deemed to have “Medium compliance”.

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<sup>12</sup> In August 2008, it was announced that the Federal Antimonopoly Service, together with the Ministry of Telecommunications and Mass Communications and the Ministry of Economic Development and Trade and the Federal Service for Tariffs, is developing rules for non-discriminatory access to telecommunications networks, which include a ban on an incumbent discriminating against other market players in providing services and in interconnection. These will be submitted to government for review in November 2008.

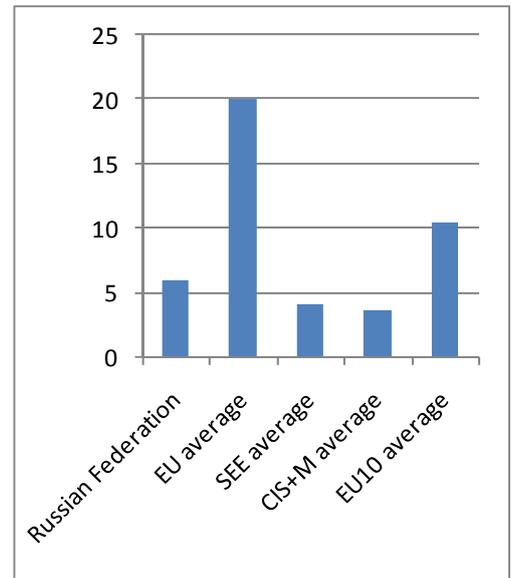
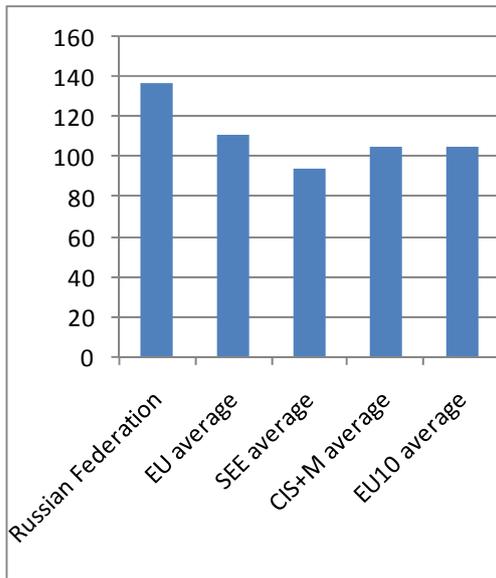
### Key indicators for the Russian Federation



Regulatory spider diagram

Fixed network penetration

Note: Russia has been marked down for the universal service indicator because of a lack of technology neutral designation of universal service providers and for high "universal service tax" on the operators. This is not reflected in the spider diagram above.



Mobile network penetration

Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to "Explanation of assessment and results" in Section II of this report.

## 11. Tajikistan

### a) Institutional framework

The Ministry of Transport and Communications (the “Ministry”) is responsible for communications policy development and drafting primary and secondary legislation. The Supervisory and Regulatory Agency in Communications and Informatisation (GSNRSI) is in the Ministry and is responsible for:

- Licensing
- Certification
- Regulation of activities in communications and informatisation
- Issue of licences for the use of Radio Spectrum
- Monitoring of spectrum usage
- Allocation of numbering resources and control
- Tariff regulation for telecommunications services

There has been much political manoeuvring about which entity will exercise responsibility for approval of tariffs. Under the Law on Electronic Communications, operators are supposed to calculate tariffs and have them approved by the Ministry of Transport and Communications. However, the Ministry of Economy recently took over responsibility for approving tariffs, using the Anti-Monopoly Agency’s powers provided for in the Law on Natural Monopolies.

The incumbent fixed operator, TajikTelecom, is 95% owned by the State, with the Ministry of Transport and Communications representing the government. The remaining 5% of shares are held by the board of directors.

### b) Regulatory independence

The deputy minister responsible for communications also serves as the Chairman of TajikTelecom. The Ministry of Communications is generally perceived to question or influence regulations issued by the regulatory agency. The result is confusion about the role of the ministry and the regulator, with a knock-on impact on the independence of the regulator. Therefore there is a degree of scepticism about regulatory independence. Although there is a separate organisation for regulation (GSNRSI), the degree of influence in regulation by the Ministry of Transport and Communications appears to be high. The Ministry of Economy also influences tariffs and interconnection charges to the point of occasionally appearing to protect government-owned TajikTelecom. One example (in late 2007) of government intervention was the Ministry of Economy’s order to cancel the operator’s collective agreement to implement “Calling Party Pays”, following Russia’s example in 2006. Under calling party pays, the subscriber does not pay for incoming calls. Instead, the calling party pays for the calls. Because most calls from the fixed line network are to mobile numbers, the cost to fixed line telephone subscribers increased substantially, resulting in political pressure to cancel “Calling Party Pays”. At the same time that it reversed the decision, the Ministry of Economy also imposed asymmetric interconnection charges strongly in favour of TajikTelecom.

### c) Market access and authorisation

The data services market was liberalised as early as 1997, but the fixed market was liberalised in 2003, with remaining restrictions on carrying international traffic removed in 2005.

There is a list of 17 different types of licence, with operators required to obtain several licences to offer a typical range of services. Licence fees are low, but rigorous checks are still made by the regulator’s State Inspection Unit before granting licences. This unit also has powers to fine licensed operators if they find infringements in their regular checks. These fines are minimal (set at 200 times minimum wages under Admin Law Article 144). They cannot revoke licences, only suspend them. The licensee can correct the infringement then apply to have the full licence restored.

The regulator has successfully revoked radio frequency licences in some cases, typically where operators are late in opening their services and are accused of blocking frequency spectrum. There are 11 operators with mobile licences but only 5 are providing services.

d) Significant market power

TajikTelecom, the national fixed operator has been designated as a dominant fixed line operator and Babylon Telecom as the dominant fixed line operator for Internet, IP telephony and business connections. Two mobile operators have also been designated as holding SMP.

Dominance is decided by the Ministry of Economy using a simple 35% market share threshold established in the Law on Natural Monopolies. This means that SMP operators are required to submit tariffs and interconnection charges to the Ministry of Economy for approval. Tariffs have to be on a cost basis, but they have been difficult to justify in such a dynamic market.

e) Competitive safeguards

TajikTelecom is reportedly obstructive on access and interconnection. TajikTelecom has a national infrastructure (SDH, Fibre, Digital switches), and while they allow competitors to have access they do so at a high cost.

An effective consultation mechanism has been initiated by an association of operators (with all operators' views being expressed and a common position presented to the regulator). The regulator has powers to hear submissions by operators and take decisions. However, government interference has appeared to overturn important market developments, with the regulator seemingly powerless to stop the Ministry of Economy intervening in support of the state-owned incumbent. There is an appeal mechanism to the judicial authorities, but the independent operators have not used it, following hints from the government that the independent operators' association risked having its status as a representative organisation revoked.

Carrier selection is used by dial-up Internet service and VoIP providers. Partial Local Loop Unbundling is used by competitive broadband providers on TajikTelecom's access network. There are no MVNOs and no number portability.

f) Universal service and consumer issues

A universal service fund, with contributions from operators, is only at the initial discussion stage. The government has not been able to implement tariff rebalancing and local line rental charges are low.

g) Outlook

Structurally and in practice, telecoms regulation is not only uncoordinated, with unclear responsibilities, its implementation is clearly biased towards protecting state-owned TajikTelecom under political influence.

The independent operators have responded by investing in their own infrastructure, and Tajikistan's major cities already benefit from integrated Next Generation Network and 3<sup>rd</sup> Generation mobile infrastructure giving some of the most advanced fixed and mobile broadband services in the world. Meanwhile, the expansion of even basic services to the general population must await a new approach to market regulation, with a more liberalised, transparent and non-discriminatory regime.

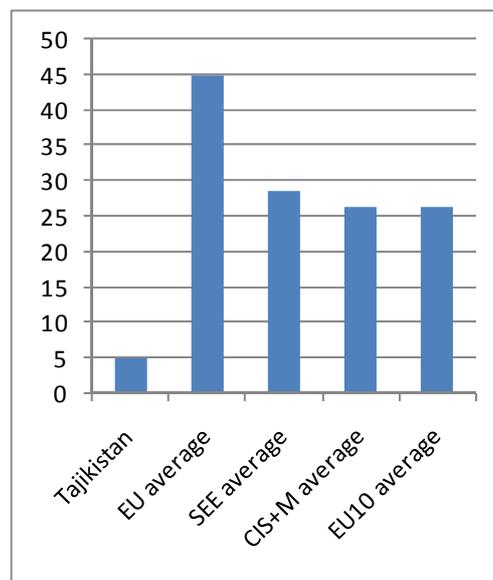
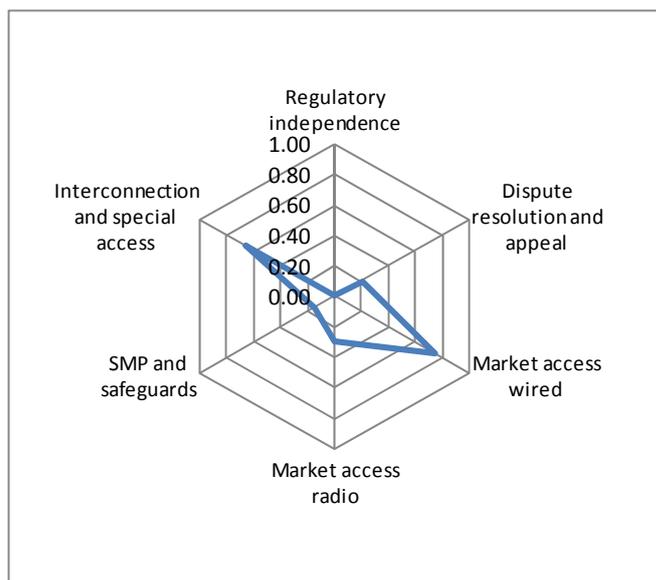
Tajikistan has issued what could be considered an unsustainable number of licences for fixed, mobile, NGN and 3G networks relative to its population and level of business activity. A number of operators can be expected to cease operating or merge with other operators over the medium term, particularly as Tajik market conditions are affected by the recent financial crisis.

The Government is drafting a new Communications Law with the goal of aligning legislation with the WTO Reference Paper and international best practice requirements for regulatory independence and other criteria. The new Communications Law should be adopted in early 2009. Adoption of the law could set the stage for development of new regulations in licensing, interconnection and tariffing which would conform to international best practice.

h) Assessment

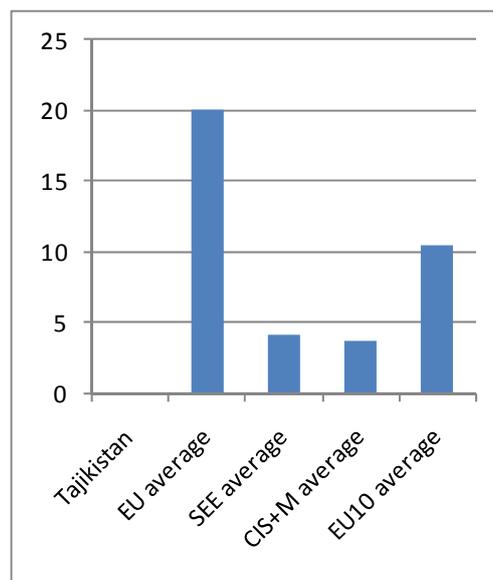
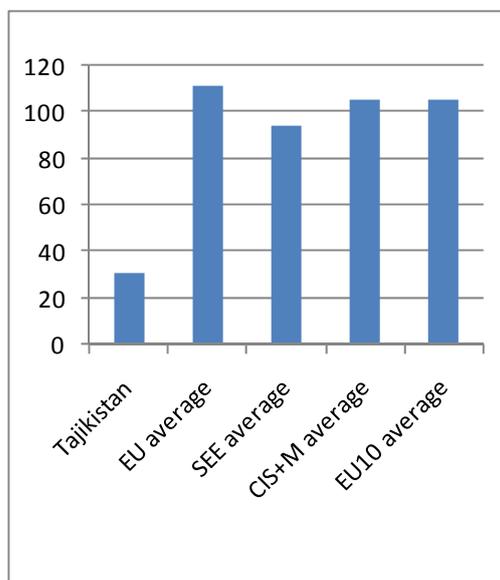
Tajikistan is deemed to have "Low compliance".

### Key indicators for Tajikistan



Regulatory spider diagram

Fixed network penetration



Mobile network penetration

Broadband network penetration

(Penetration less than 1% is not shown on this chart)

For details of the definitions of the main terms used in these graphics, please talk about, mention "Explanation of assessment and results" in Section II of this report.

## 12. Turkmenistan

### a) Institutional framework

The Ministry of Communications (the "Ministry") controls eight State Enterprises in the post and telecommunications sectors;

#### 1. Turkmen Telecom (fixed operator)

2. Ashgabat City Network
3. Altyn Asyr (GSM)
4. TV Radio/TV Broadcasting
5. Spectrum Administration
6. Turkmenistan Post
7. Special Delivery service (Postal)
8. Training Centre

Under the 2000 Law on Communications, the Ministry defines sector policy, regulates co-operation between operators, issues licences, manages the spectrum, sets tariffs and carries out investigations to check that operators conform to all laws and regulations. The Deputy Chairman of the Cabinet of Ministers (equivalent to deputy prime minister) is ultimately responsible for the communications sector, with the Minister of Communications reports to him.

The President and the Cabinet of Ministers defines policy for the sector and the Ministry is tasked with implementing this policy. Under the 2000 Law on Communications, the Ministry provides proposals for the development of the sector, and is the regulatory body that regulates the co-operation between operators. It also receives applications for licences and issues licences ("Law on Regulation of Licences"), carries out spectrum management ("Law on Frequency Management"), establishes tariffs caps for residential line rentals and local calls.

b) Regulatory independence

The Minister and Regulator are the same body. The General Director of Turkmen Telecom reports to the Cabinet of Ministers, as does the Minister of Communications. There is no real concept of separation of powers. However, there appears to be an acceptance of allowing alternative operators into the market. Political interference is inevitable under the vertical structure of ministry, regulator and state owned operator.

Because there is only one Internet licence, the role of tariff regulation by the Cabinet of Ministers, the close examination by the Ministry of commercial factors before issuing licences, suggests that there is heavy government direction of the market.

c) Market access and authorisation

There is a tight system of government direction, from licence application to market operation. The licence fees are low, and fixed across all sectors by the Ministry of Economy. Each licence is for a fixed term of three years. There are 32 different types of licence in the communications sector, issued by the Ministry. It is understood that the existing licensing regime will be changed in forthcoming revisions proposed to the Law, to take account of new technologies and new services.

The licence application consists of a 2 page form and 10 defined documents attached. The Ministry submits it to a Commission, (consisting of representatives from the eight State Bodies); each member gives their opinion.

There are no exclusive rights explicitly defined. Where there is only one licence holder this is understood to be because no other operator has applied to be licensed. Turkmen Telecom runs fixed line services nationally, except in the capital, which is operated by another state company, Ashgabat City Network. Any operator is theoretically allowed to offer Internet services provided they have a licence, but at present there is only one licence holder, Turkmen Telecom.

There are two mobile operators, Altyn Asyr (100% government controlled) with roughly 160,000 subscribers and MTS (100% privately owned) with 600,000 subscribers.

Foreign companies are not allowed to buy land, so they must lease a building and adapt it. Typical premises that independent operators need belongs to the government and the procedure necessary to lease the premises can be lengthy.

There is an Inter-Agency Commission on Radio Frequencies, chaired by the Deputy Chairman of the Cabinet of Ministers. This Commission takes account of all sectors, broadcasting, telecommunications and military. But the regulations published are sector specific.

d) Significant market power

The State Enterprises have de facto market power and act under the vertical control of the Ministry. Under the new law, the Ministry of Communications will be required to invite specialists from other Ministries, (e.g. Justice) and from the eight State Enterprises, to round table discussions, before making regulatory decisions. There is no obligation to invite private operators, the Ministry of Justice is supposed to represent their interests.

Tariffs are set by the operators themselves. However, before a licence is issued, the Ministry examines the tariff proposals, to see that certain tariff limits are not exceeded. If a private operator wants to change retail tariffs or interconnection charges, they are required to consult the Ministry before implementing these changes.

e) Competitive safeguards

There are no competitive safeguards, as they are understood in the WTO reference paper, that have been made effective. The main regulatory device is investigation which is a defined obligation of the Ministry. It issues an order to carry out an inspection. An Inspection Commission is formed and invites competent state officials to carry out the inspections, which they duly carry out. The Commission consists of people from the eight State Enterprises. The inspection can cover technical, quality, accounting and legal issues. The accounting issues include tariffs, customer contracts, costs and profits, to see if they exceed predefined state norms.

Although there is no RIO as such, the agreements between Turkmen Telecom and the other operators are much the same (technically and the charging rates). So these agreements could be turned into an RIO.

If an alternative Internet service or broadband provider wished to offer service using an incumbent operator's network, this would be investigated, consistent with any other issue. No alternative provider is known to have applied to provide such services. In the capital, Turkmen Telecom provides Internet services to Ashgabat City Network's customers, but as both are State Enterprises no economic regulations are applied.

Number portability has not been actively considered yet.

f) Universal service and consumer issues

There is no universal service fund and the State Enterprises do not receive any compensation for loss making services. Overall Turkmen Telecom is profitable so it can afford to subsidise such services itself. The norms on profit margins are recommended by the Ministry, and controlled by the Cabinet of Ministers for the eight State Enterprises. These are also issued as norms to the private sector operator.

International call tariffs have not changed in 15 years, although inflation over that time will have reduced them in real terms.

g) Outlook

Fixed penetration is less than 10%, mobile penetration less than 20%, with negligible broadband.

The market is governed by the government's Medium Term Plan. This includes communications sector goals. The President of Turkmenistan has publicly stated a goal of 1 million Internet users and 1 million mobile subscribers by the end of 2008, then 2 million Internet users and 3 million mobile users by the end of 2009.

The government is understood to be considering options for the development of the mobile market, perhaps including the issue of a third mobile licence. Additional development in the sector includes the installation of fibre optic cables throughout rural and urban areas.

Tariff rebalancing has been discussed but resolution of the issue is outstanding.

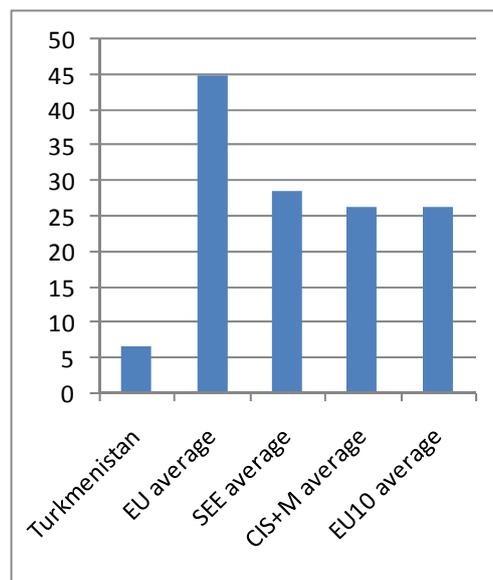
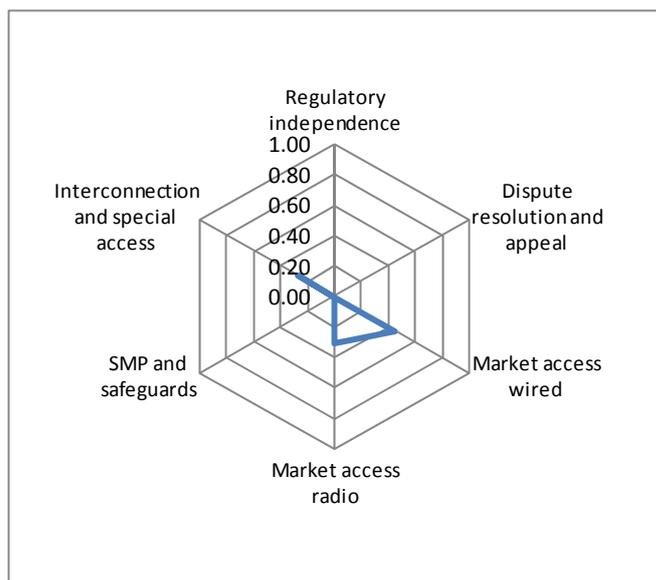
Until 2006, little attention was paid to the development of Internet services. Since then, however, there has been a higher pace of development. The only service provided to customers now is 50 kbps dial-up, by Turkmen Telecom, though leased lines are provided to business customers for higher capacity Internet access.

Permission has now been given for broadband national WiMax frequencies.

h) **Assessment**

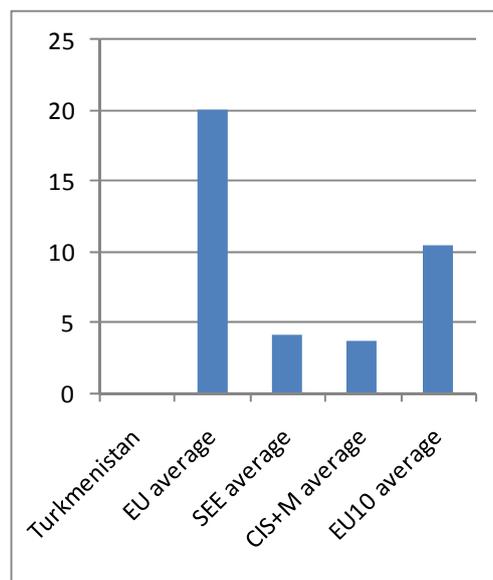
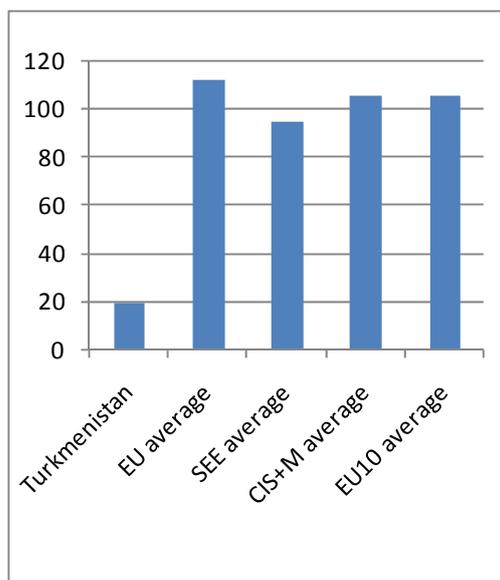
Turkmenistan is deemed to have “Low compliance”.

### Key indicators for Turkmenistan



Regulatory spider diagram

Fixed network penetration



Mobile network penetration

Broadband network penetration

(Penetration less than 1% is not shown on this chart)

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

## 13. Ukraine

### a) Institutional framework

The Law on Telecommunications adopted in November 2003 (the “2003 Telecom Law”), provided for the establishment of a regulatory authority – the National Commission for Communication Regulation (NCCR). That body is responsible for licensing operators, frequency assignment, numbering, monitoring of the market, price regulation, supervising compliance with

the laws and regulations and imposition of sanctions, and dispute resolution when interconnection agreements are not reached between operators.

NCCR's board is composed of one chairperson and seven commissioners.

However, since the first appointment of commissioners in December 2004, the work of NCCR has been hampered by frequent appeals challenging the lawfulness of appointment and operation of the commission.

The Ministry of Transport and Communications (via the State Department for Communications and Information (SDCI)) is responsible for telecommunications policy and the drafting of laws and regulations. It also develops and approves regulations within its competence, and organises scientific research activities on telecommunications matters. In the field of spectrum, the Ministry is responsible for frequency allocation.

The competition authority in Ukraine is the Antimonopoly Committee (AMC). The authority is empowered to impose fines if its decisions are ignored. An AMC decision may be appealed to the commercial court. In practice, merger control seems to be in main task.

b) Regulatory independence

The 2003 Telecom Law does not include specific provisions about the independence of NCCR from the government. The independence of the regulator is undermined by inconsistencies between different laws about who has the power to appoint NCCR commissioners. According to the 2003 Telecom Law, the Chairman and the Commissioners are appointed by the President. However, dismissal and appointment rules seem to be unclear in practice, since the 2003 Telecom Law conflicts with other laws regulating appointments and dismissals of government officials. NCCR has already had three different chairmen in three and half year of operation. A recent development (in June 2008) saw the President of Ukraine signed a decree cancelling previous Cabinet orders for the appointment of NCCR commissioners. These developments have given rise to justifiable concerns for the independence of NCCR.

Further concerns in this respect arose with the award by NCCR of a 3G licence to Ukrtelecom (the state-owned incumbent operator) without a proper call for tender. This was seen by industry as a way of boosting the value of Ukrtelecom before its privatisation.

c) Market access and authorisations

NCCR is the body responsible for granting individual licences. The 2003 Telecom Law makes a distinction between operators and providers. The latter do not have the right to operate networks.

Licence fees vary from around €1.5m for fixed international telephony down to less than €1,500 for network capacity and ten thousand telephone numbers. A 15-year national licence for VoIP costs €150,000.

Four mobile operators have been granted 2G licences. The licensees are MTS Ukraine (formerly UMC), Kyivstar as well as two smaller operators, Beeline and Life.

Ukrtelecom was granted a 3G licence and started commercial operations in November 2007. Other possible 3G frequencies are currently used by the military, though a refarming plan is ongoing.

The installation of a base station is a bureaucratic process, with the collection of not less than 300 signatures (approvals) necessary for every station.

There are roughly 800 fixed operators. However, most of them are very small. Carrier selection and pre-selection are not available. Because roughly 40% of switches are still analogue, there will be an extra hurdle when carrier selection or carrier pre-selection is finally implemented.

The interconnection regime used to be "called party pays". Local calls and calls to mobile were unmetered. It has now changed to "calling party pays" as in most other European countries.

Ukrtelecom's Fixed Termination Rates are extremely high.

d) Significant market power

The concept of SMP does not exist under Ukrainian law.

NCCR has no judicial competence to define markets and declare dominance. NCCR would normally start treating a company as dominant after an assessment has been made by the national competition authority. Furthermore, NCCR must refer any material relevant to possible violations of competition law to the competition authority.

e) Competitive safeguards

The State Inspection of Communications, a unit of NCCR, has power to impose fines but these are low. Because the concept of SMP does not exist, it is unclear on which basis obligations such as carrier selection or carrier pre-selection or local loop unbundling could be imposed.

f) Universal service and consumer issues

The 2003 Telecom Law states that:

*Access by all consumer to public telecommunications services, which are necessary for meeting their own needs, and for participation in political, economic and public activities (Art. 6.1.1)*

Universal service includes fixed local, long distance and international telephony at regulated retail prices, as well as emergency services, public pay phones and communications centres, fax and telegraph services, provided at a fixed (wireline) location. No universal service provider has been designated although in practice Ukrtelecom plays this role. The introduction of a USO fund is being considered but not in operation yet.

In practice, the situation is as follows;

- fixed penetration has remained stable for many years at around 25% of the population (28% in July 2008). The rebalancing of fixed retail prices has started mainly because of the competition from mobile telephony.
- mobile penetration exceeds 120% of the population.
- broadband penetration has only reached 2% of the population.

g) Outlook

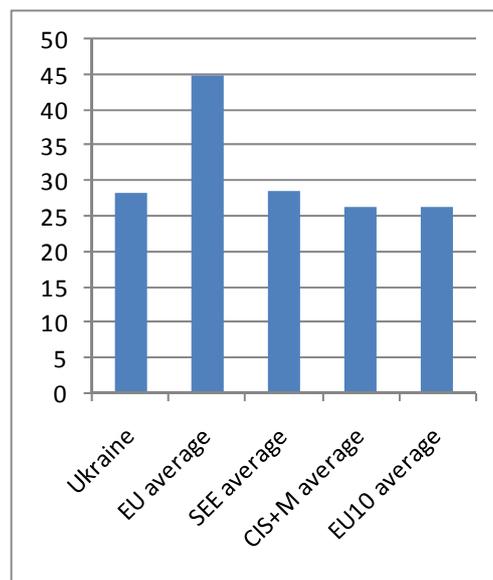
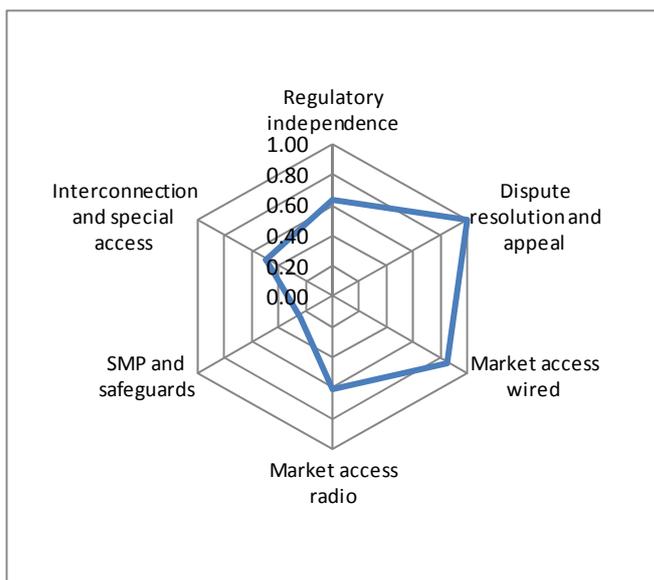
The privatisation of Ukrtelecom appears to be on the agenda again, but will require the approval of parliament. Given the ongoing political instability, full formal approval of the privatisation may be some time away.

The other main topic requiring priority attention should be a review of the 2003 Telecom Law (and other laws) to clarify who has the power to appoint NCCR commissioners.

h) Assessment

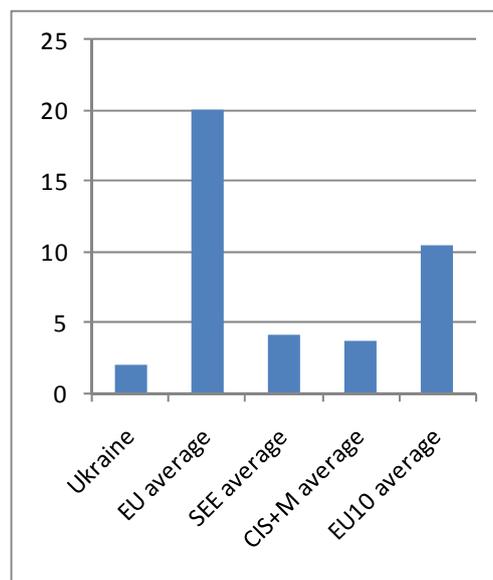
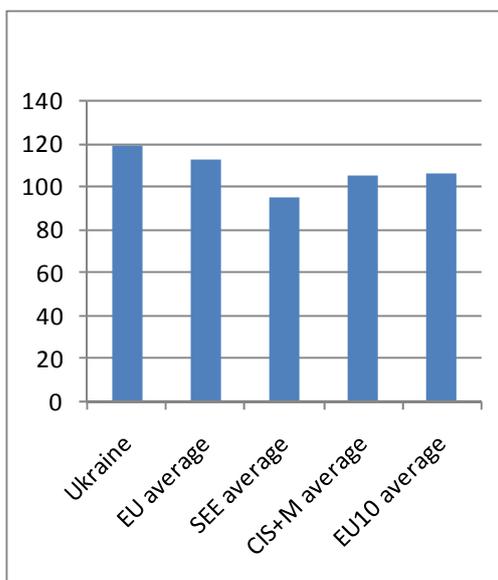
Ukraine is deemed to have "Medium compliance".

### Key indicators for Ukraine



Regulatory spider diagram

Fixed network penetration



Mobile network penetration

Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

## 14. Uzbekistan

### a) Institutional framework

The Communications and Information Agency for Uzbekistan (the “Agency”) has responsibility for policy and regulation for the telecommunications sector. The Director General of the Agency is also the Deputy Prime Minister responsible for telecommunications, who also acts as Chairman of the Board of UzbekTelecom (the state-owned dominant national operator) and as Chairman of the State Commission on Radio Frequencies.

The Government has 94% ownership of UzbekTelecom, which in turn has full ownership of 14 Regional and 5 specialist subsidiaries including a national Internet and a mobile operator. Active competition is provided by a number of fixed and Internet service providers plus 5 mobile companies.

b) Regulatory independence

Because the regulatory functions are carried out by the Deputy Prime Minister who also plays a significant role as Chairman of the dominant incumbent operator, it is clear that regulatory independence, as it is understood in the WTO reference paper, does not exist.

The questions of privatisation and the establishment of a truly independent regulatory operator have been on the agenda for several years. In the case of UzbekTelecom, earlier attempts at privatisation have failed.

c) Market access and authorisations

Uzbekistan has a regime based on individual licences with a typical duration of ten years for all types of telecommunications activities such as fixed telephony, mobile telephony, IP telephony, radio trunk transmission, data transmission, etc.

Although most types of services are open to competition, there is still an exclusive right for UzbekTelecom to provide international traffic, and international capacity is limited.

The licences that are granted are typically very specific in terms of which activities may be carried out and an operator may need several licences in order to provide a basket of services.

Several operators are investing in IP based networks and are moving toward next generation network (NGN) solutions that include IP TV and videophone in addition to telephony.

Frequency allocations are carried out by the State Commission on Radio Frequency, in some cases by competitive tendering.

d) Significant market power

There is not yet a framework in place to determine significant market power, however, the regulatory agency treats UzbekTelecom as a dominant operator and regulates its main retail tariffs and ensures that it applies interconnection fairly.

e) Competitive safeguards

Few competitive safeguards as they are understood in the WTO reference paper have been implemented. Although the Agency makes an effort to provide direction to the sector and has established the main principles and terms that shall apply to interconnection, there is no reference interconnection offer yet. However, the dominant operator publishes its main interconnection charges on its website.

Competing operators are allowed to use the dominant fixed operator's local access network to provide DSL-based broadband access (partial Local Loop Unbundling). The regulatory agency has ensured that standard terms are used including a low wholesale unbundling fee.

Furthermore, although carrier selection is used by pre-paid dial-up Internet and VoIP providers, no safeguards for carrier pre-selection or number portability have been established yet.

f) Universal service and consumer issues

UzbekTelecom has been assigned an obligation to provide telephony at reduced tariffs for residential subscribers.

All licensed operators have to pay a percentage of their revenues into a universal service fund, administered by the regulatory agency. The operation of the fund is not seen as fully transparent.

g) Outlook

Although Uzbekistan still operates vertical control of the sector from the Cabinet of Ministers, with one person (the Deputy Prime Minister) having all the key roles, there appears to be a positive disposition towards a limited competitive market using the latest technologies. Uzbekistan has

always attempted to play a role in regional and international communications sector discussion (including the running of a yearly ICT forum and the hosting of ITU conferences), though with limited apparent impact on the reform of communications regulation in the country.

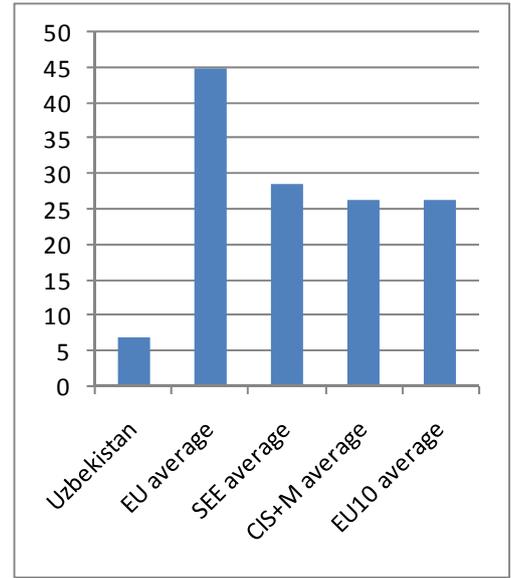
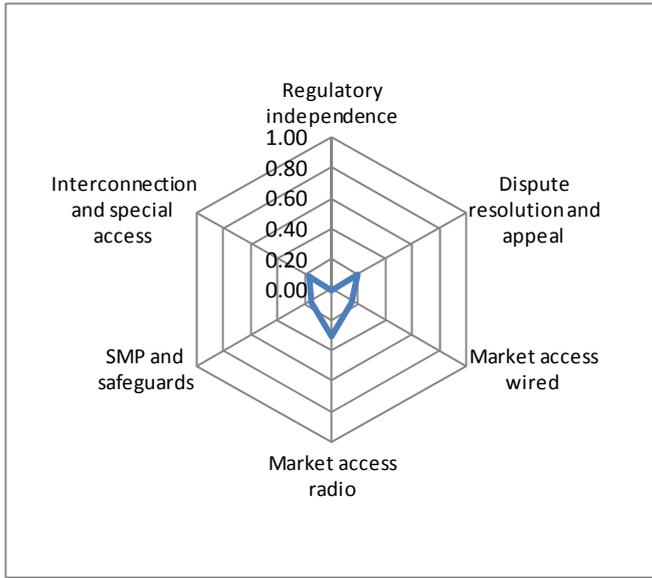
UzbekTelecom still dominates with around 90% of the fixed market. It continues to suffer many of the problems of a national incumbent, needing to catch up after many years of under-investment. Competitors are installing the latest fibre, wireless and IP based networks and offering the latest services to customers.

In the broadband market, UzbekTelecom was particularly slow to launch a reasonable market offering. Instead, it started to allow other providers to use its access network and now broadband take-up is at last growing fast.

A much more modern approach to market regulation is needed. Instead of the existing strict licensing categories and market inspection approach, the regulator needs to properly examine each sub-market for competitiveness and to relax regulations with appropriate market access and regulatory safeguards. Obvious steps are the liberalisation of international traffic, tariff rebalancing of the dominant operator, plus the introduction of carrier pre-selection and number portability. Universal service policy and implementation need to focus on better infrastructure, particularly in rural areas.

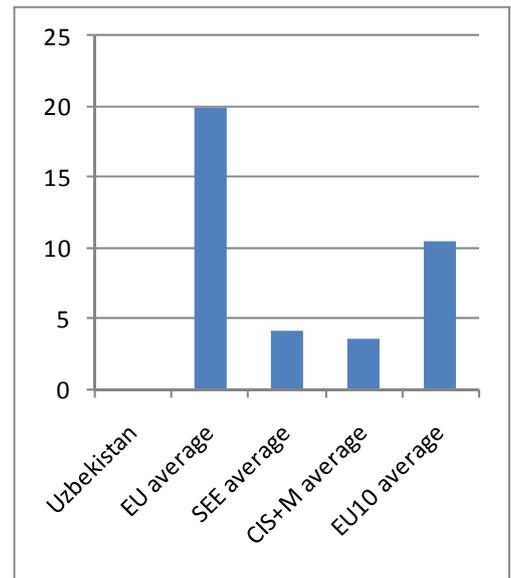
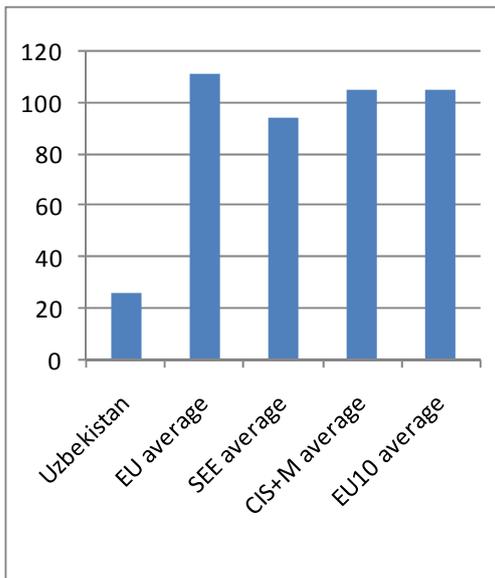
- h) Uzbekistan is deemed to have "Low compliance".

Key indicators for Uzbekistan



Regulatory spider diagram

Fixed network penetration



Mobile network penetration

Broadband network penetration

(Penetration less than 1% is not shown on this chart)

For details of the definitions of the main terms used in these graphics, please refer to "Explanation of assessment and results" in Section II of this report.

## B. South Eastern European Region

### 1. EBRD in South East Europe

This section includes summaries of the status of the telecommunications sectors throughout the South East Europe (SEE) Region where EBRD is active. Comprising this sub-region are Albania, Bosnia & Herzegovina, Croatia, Montenegro, Serbia (with Kosovo assessed separately), and FYR Macedonia. Turkey has been added to this sub-region, as it has applied for EBRD country of operation status, and acts as a useful comparator.

This information is copied from the first report of the study: "Supply of services in monitoring regulatory and market developments for electronic communications and information services in enlargement countries", which is being performed by Cullen International for the European Commission. This report, which has been in development from the second quarter of 2008, is planned for publication on the European Commission's website in the September/October time frame.

The summaries are intended to provide an insight into the regulatory regime and to highlight factors that have influenced the regulatory assessment.

### 2. Albania

#### a) Institutional framework

The new Law on Electronic Communications (Law No. 9918 of May 19, 2008) that entered in force on June 26, 2008 is the main legal instrument that regulates the electronic communications sector in Albania and defines its institutional framework, including the responsibilities of the government, the relevant ministry and the national regulatory authority. That law replaces the previous Law on Telecommunications of 2000 and is intended to bring the Albanian law in compliance with the principles of the EU 2003 regulatory framework for electronic communications.

The Ministry of Public Affairs, Transport and Telecommunications (the "Ministry") is the central state administration body responsible for electronic communications and postal services through its General Directorate of Posts and Telecommunications.

The Ministry is responsible for preparing and presenting for the approval by the Council of Ministers the proposal for the policy on electronic communication field, drafting relevant primary and secondary legislation, preparing the National Radio Frequency Plan and approval of the tender procedures for the frequency assignment and designation of the universal service providers based on the proposals of the regulator.

The Law on Electronic Communications establishes the Albanian Authority of Electronic and Postal Communications (AKEP) as a new regulatory authority that assumes the tasks and responsibilities of the previous regulator for telecommunications (the Telecommunications Regulatory Entity). AKEP is a public, independent, non-budgetary, legal entity responsible for carrying out regulatory tasks defined under the Law on Electronic Communications, including adoption and administration of implementing legislation within its competencies.

AKEP is governed by a Governing Council composed of five members appointed for a 5 year office term, by the Assembly of the Republic of Albania, on the proposal of the Council of Ministers, and having the right for no more than one office term. The Assembly appoints one of the members of the Governing Council as the Chairman, who also acts as the Executive Director of AKEP.

AKEP is a self-financed entity funded from the annual market supervision fees paid by undertakings providing electronic communications networks and services. There is a requirement for AKEP to present, at the beginning of each financial year, its forecasted operational costs for approval by the Council of Ministers. Any amount exceeding the expenses of AKEP in the year is transferred to the State Budget.

AKEP is accountable for its activities before the Assembly of the Republic of Albania. At the end of each year, AKEP is required to submit an annual report on its activity to the Assembly.

Appeals against decisions of the AKEP Governing Council may be brought before the Tirana District Court (the Court of First Instance), within 30 days from the decision date.

b) Regulatory independence

On June 19, 2007, after a two-year period of negotiations over the details over the privatisation of Albtelecom, Calik Enerji and the Albanian Ministry of Economy, Trade and Energy, signed the agreement for the sale of a 76% stake of the incumbent operator to a joint venture of Calik Enerji and Turk Telekom. The deal also included Eagle Mobile, the third mobile operator. The privatisation agreement was ratified by the Albanian Parliament on July 19, 2007.

The Albanian state still controls 24% of the shares in Albtelecom and Eagle Mobile and 12.6% of the shares in the mobile operator AMC<sup>13</sup>. The ownership functions are exercised by the Ministry of Economy, Trade and Energy.

Although the Law on Electronic Communications stipulates that the members of AKEP Governing Council may not be owners, stockholders or shareholders in regulated entities or perform any other tasks resulting in a conflict of interest, the complete separation of operational from regulatory functions has not been accomplished as officials from the Ministry of Public Affairs, Transport and Telecommunications are also represented in the managing boards of the operators.

The administrative independence of AKEP is undermined by the legal provisions restricting its ability to decide independently on its organisational structure and the salary level of its staff. Similarly to the previous Law on Telecommunications, the new Law on Electronic Communications maintains the requirement for AKEP organisational structure and its staff salary level to be approved by the Assembly upon proposal by the Council of Ministers.

Another factor undermining the regulator's independence is the recent record of repeated dismissals of its Council members for reasons that were not always stated in a transparent manner and possibly caused by politically motivated decisions.

c) Market access and authorisations

Liberalisation of fixed electronic communications networks and services was introduced gradually: starting with rural local networks in 1998, moving to domestic long distance networks in July 2003 and international networks in January 2005. However, in practice, competition has only emerged at the level of rural local networks, as no alternative fixed network operators have been licensed to supply long distance and international services in competition with the incumbent Albtelecom. Only amendments to the Law on Telecommunications adopted in November 2006 introduced a new concept of regional licences for rural, urban, and domestic long distance networks and effectively opened urban local networks for competition. The relevant implementing legislation was adopted by the regulator in April 2007.

The new Law on Electronic Communications (June 2008) introduced a general authorisation regime where electronic communications network and services that do not require the use of limited resources can be provided without individual licences, subject to a general authorisation with a notification submitted to AKEP, which must complete the registration of the notification within 15 days from its receipt.

NB. The new Law on Electronic Communications came into effect on June 26, 2008. In practice, it requires secondary legislation before the new authorisation regime is fully implemented. The regulatory assessment carried out for Albania therefore reflects the fact that the country is still in transition as this report is being written.

Individual licences will be issued by AKEP for the rights of use of the radio frequency spectrum. There are plans to licence a fourth GSM mobile operator in compliance with the provisions of the new law.

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<sup>13</sup> The Albanian government has announced in October 2008 that it will sell its remaining 12.56% share of Albanian Mobile Communications (AMC),

d) Significant market power

Under the Law on Telecommunications of 2000, the regulator had discretion to define relevant markets applying competition law principles. However, the undertakings with SMP were designated on the basis of the static 25% market share threshold, sometimes together with assessment of other criteria. Basic remedies applied to all operators with SMP were defined by the Law on Telecommunications, while some further discretionary remedies that could be imposed on SMP operators by the NRA were set out in TRE Regulation on Access and Interconnection of December 7, 2007.

On September 18, 2007 the regulator designated the mobile operators, AMC and Vodafone, as having SMP in the markets for wholesale call termination in individual mobile networks and retail public mobile services and imposing the regulatory obligations of access and interconnection, non-discrimination, transparency including the requirement to publish RIO, price control, accounting separation and cost accounting.

On November 13, 2007 the regulator designated Albtelcom as having SMP in the six relevant markets, covering retail access and publicly available phone calls at fixed location, wholesale call termination on geographic numbers in Albtelcom fixed network, wholesale call origination on the public fixed telephone network, national transit services in the public fixed telephone network and International transit services in the public telephone network. The scope of regulatory obligations includes: carrier selection, carrier pre-selection, access and interconnection, non-discrimination, transparency including the requirement to publish RIO, price control, accounting separation and cost accounting.

Since 2007, AKEP has introduced full market analysis procedures, definition of relevant markets, SMP designations and imposition of remedies on SMP operators based on the principles of the Law on Competition and the EU 2003 regulatory framework. The new law requires AKEP to carry out market analysis procedures at least once every two years. Until the Agency has completed its market analyses under the new framework, the previous SMP designations and regulatory obligations will remain in force.

e) Competitive safeguards

Most of the key competitive safeguards foreseen under the EU 1998 regulatory framework have not yet been fully implemented in Albania.

- In March 2008 Albtelcom, AMC and Vodafone submitted their first RIOs to the regulator for approval and the decision on compliancy of RIOs will be adopted following a public consultation.
- TRE adopted a regulation in December 2007 on Access and Interconnection that includes the rules for publication and content of a RUO, but there is no obligation yet for Albtelcom to provide LLU and publish a RUO.
- CS/CPS is imposed as a regulatory obligation on Albtelcom but implementation is not foreseen before 2009.
- No decision on implementation of number portability has been adopted so far.

f) Universal service and consumer issues

Under the Law on Electronic Communications, AKEP can designate one or more universal service providers based on a public tender procedure, subject to Ministry approval. The scope of universal service includes the following elements;

- access to the telephone service available to the public from a defined geographic location, enabling the user to make and receive local, national and international calls, facsimile communications and data communication at a minimum speed of 32 kbps;
- telephone directory;
- public payphones;
- equivalent access to and use of telephone service made available to the disabled end-users, including access to emergency calls services and information in telephone directory.

All public telecommunications networks operators are required to provide free access to emergency services.

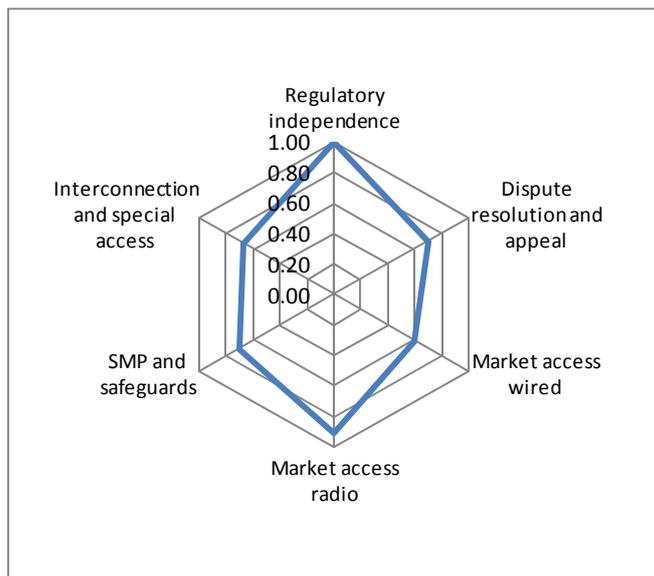
g) Outlook

The main requirements of the 2003 EU framework in the field of electronic communications networks and services will now be implemented following the adoption of the new Law on Telecommunications (June 2008). Competitive safeguards, such as number portability, carrier selection, carrier pre-selection, local loop unbundling and costing models for the introduction of cost-based tariffs are all planned. AKEP is also improving its expertise and capacity.

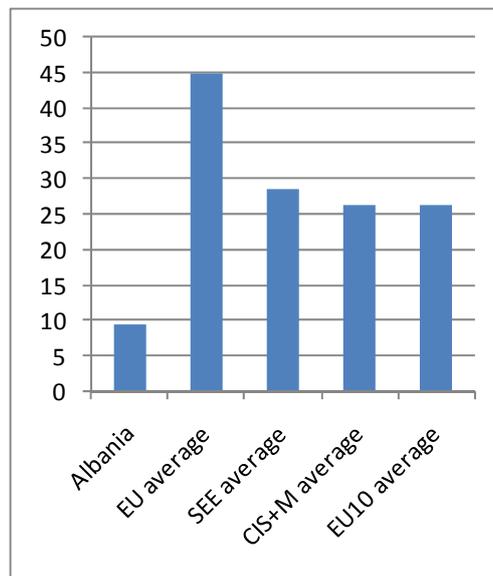
h) Assessment

Albania is deemed to have "High compliance".

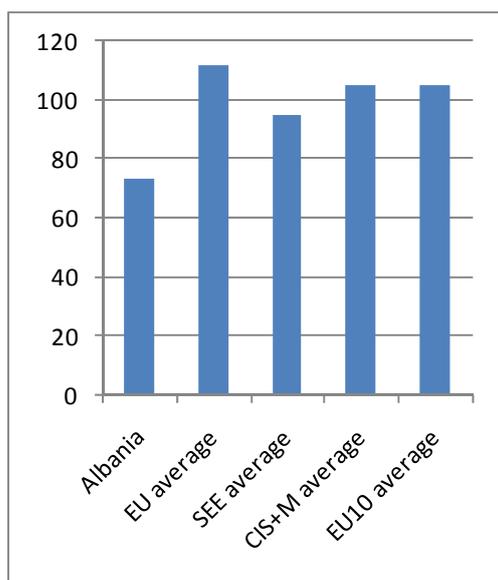
### Key indicators for Albania



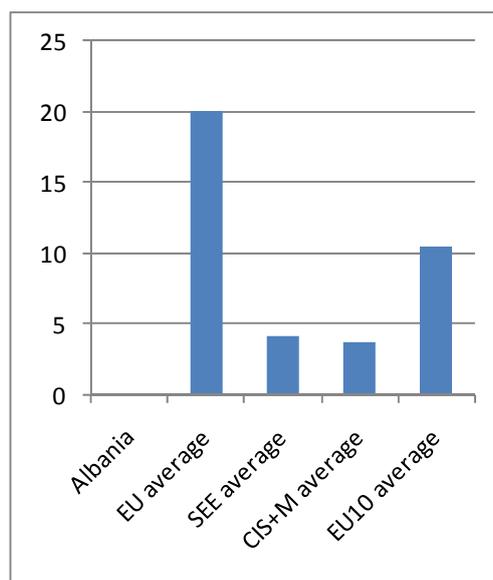
Regulatory spider diagram



Fixed network penetration



Mobile network penetration



Broadband network penetration

(Penetration less than 1% is not shown on this chart)

For details of the definitions of the main terms used in these graphics, please refer to "Explanation of assessment and results" in Section II of this report.

### 3. Bosnia & Herzegovina

#### a) Institutional framework

The country of Bosnia & Herzegovina has two entities:

- The Federation of Bosnia & Herzegovina.

- Republika Srpska

In addition, the district of Brcko is under a separate decentralised system of local government.

However, the telecommunications sector is regulated at the national level.

The Law on Communications of October 21, 2002 regulates the communications sector in Bosnia & Herzegovina and defines its institutional framework for policy making and regulation. Within the scope of the law, communications include telecommunications, radio, broadcasting, including cable television, and associated services and facilities.

The Council of Ministers of Bosnia & Herzegovina (with the Ministry of Transport and Communications) is responsible for developing and adopting policies for communications, and for preparing secondary legislation that implements the Law on Communications.

Under the Law on Communications, the Council is also responsible for defining the scope of universal services, designating the universal service providers and establishing its funding mechanism, based on a proposal from the national regulatory authority.

The Law on Communications establishes the Republic Telecommunications Agency (RAK), which is a functionally independent non-profit institution. RAK is responsible for regulating broadcasting and public telecommunications networks and services, including licensing, tariffs, interconnection, and defining the basic conditions for the provision of common national and international communications facilities; planning, co-ordinating, allocating and assigning the use of the radio frequency spectrum; and management of the numbering plan and assignment of numbering resources to telecommunications operators.

Strategic and policy implementation issues at RAK are decided by the Council of the Agency that consists of seven members nominated by the Council of Ministers and appointed by the Parliament of Bosnia & Herzegovina. The Council adopts codes of practice and rules for broadcasting and telecommunications, as well as internal rules.

RAK is headed by the Director General, who is elected by the Council of the Agency and approved by the Council of Ministers. He is responsible for all regulatory and administrative functions of RAK and manages its day to day operations, including implementation of relevant laws and policies, technical oversight, industry affairs and staffing.

The Parliament of Bosnia & Herzegovina has the sole authority to dismiss the members of the Council of the Agency before the end of their mandate. The Council of Ministers has the sole authority to dismiss the Director General before the end of the mandate. Members of RAK's Council and the Director General have a term of 4 years and can be re-appointed only once.

Appeals against decisions made by the Director General can be submitted to the Council of the Agency who acts according to the Law on Administrative Procedures of Bosnia & Herzegovina, and makes a full review of the appealed decision. Pending the outcome of the appeals against decisions made by the Director General, the effect of the decisions shall not be suspended. Decisions of the Council of the Agency shall be final and binding in administrative procedure. A legal review of the decision can be brought before the State Court of Bosnia & Herzegovina.

RAK has its own independent budget financed through authorisation, numbering and frequency fees.

b) Regulatory independence

In Bosnia & Herzegovina, there are three incumbent operators, one in each of the three territories<sup>14</sup>. The Federation government of Bosnia & Herzegovina still retains 90% ownership in BH Telecom (Sarajevo) and 50.10% in Hrvatske Telekomunikacije (Mostar), with the ownership functions performed by the Federal Ministry of Transport and Communications. The third incumbent operator, Telekom Srpske of the Republika Srpska is now completely privatised. In December 2006, the Serbian incumbent operator, Telekom Srbija, won the tender for the privatisation of the state-controlled 65% of the Republika Srpska's incumbent telecommunications operator Telekom Srpske. The privatisation was finished in July 2007, after

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<sup>14</sup> The Federation of Bosnia & Herzegovina have two incumbent operators, each one traditionally operating on a separate territory within the federation.

the Competition Council approved the transaction in April 2007. Twenty percent of the remaining shares are traded on the national stock exchange, 10% is held by a pension fund and 5% is held by a restitution fund.<sup>15</sup>

The Law on Communications provides for substantial administrative and financial independence of RAK. In particular, it ensures that neither the Council of Ministers, nor individual Ministers may in any way interfere in the decision-making of the Agency in individual cases. The Law also enables the Council of RAK to decide on the pay structure for calculation of its staff salaries, the salary grades, and any permissible bonuses.

The new Law on Salaries and Allowances for Civil Servants adopted on 23 June 2008 may potentially hinder RAK's independence by bringing the salary level of its employees within the pay scales for civil servants. (Under this law RAK will have to follow the established scales for the basic salary levels and will only be able to increase salaries of its employees through an additional "regulatory" bonus scheme.)

Another factor that to some extent undermines independence of RAK is the present uncertainty about the designation of the Director General, which complicates and slows down the decision-making processes at RAK. After the mandate of the previous Director General had expired last year, the Council of RAK proposed to re-appoint him for another term. On 27 September 2007 the Council of Ministers, rejected this proposal and requested RAK to repeat the selection procedure for the appointment of the Director General. No new procedure has been initiated so far, and the previous Director General retains his position without formal approval from the Council of Ministers.

c) Market access and authorisations

The liberalisation of the telecommunications sector of Bosnia & Herzegovina was completed on January 1, 2006 with opening for competition of international voice telephone services. According to the present licensing framework, the provision of fixed voice telephone networks and services is subject to an individual licence, while the provision of Internet services is subject to a general (class) licence.

The one-off licence fees are set at €511, while the annual fees are determined by the scope of the services provided: €255,600 is being paid by the three incumbent operators for the provision of public fixed telephone networks and services; €35,800 paid by public fixed telephone service providers without their own networks, €2,500, €5,000 and €25,000 – for local, regional and national networks, respectively.

d) Significant market power

The undertakings with SMP are designated by RAK on the basis of the static 25% market share threshold. Basic remedies for operators with SMP, such as access, interconnection and non-discrimination, are set out in the Law on Communications, but RAK has discretionary powers to decide on a further set of more specific regulatory obligations.

On September 27, 2007 RAK designated the three incumbent operators, BH Telecom, Telekom Srpske and HT Mostar as having SMP in public fixed telephone network and services and in public mobile telephony services. The scope of regulatory obligations includes: non-discrimination, cost orientation, transparency, access and interconnection, price control, RIO, and for fixed networks, the provision of CS/CPS.

e) Competitive safeguards

The following key competitive safeguards foreseen under the EU 1998 regulatory framework have been implemented in Bosnia & Herzegovina.

- CS/CPS was introduced in July 2007 but so far is at an early stage of implementation with only two alternative operators providing CS services;

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<sup>15</sup> The government of Bosnia's Muslim-Croat Federation has drafted a plan to privatise the telecoms operators in the Federation. The Federation government plans to sell to a strategic investor 51% of BH Telecom.

- RIOs for fixed networks of the three incumbent operators have been available since November 2006;
- RUOs should be published by October 2008;
- the timeframe for implementation of number portability in fixed and mobile networks has not been decided yet (it is pending adoption of the new telecommunications sector policy by the Council of Ministers).

f) Universal service and consumer issues

The Law on Communications states that the Council of Ministers shall define the scope of universal services, the funding mechanism and the designation of the universal service providers, which has not been decided so far.

The requirement to offer the minimum scope of universal services is covered by the licence terms of the three incumbent operators. This includes the requirement to offer; connections to the fixed public telephone network at a fixed location and access to fixed public telephone services at affordable prices, allowing users to make and receive national and international calls, supporting speech, facsimile and/or data communications; provision of directories and directory enquiry services; public pay phones; and free access to emergency services.

g) Outlook

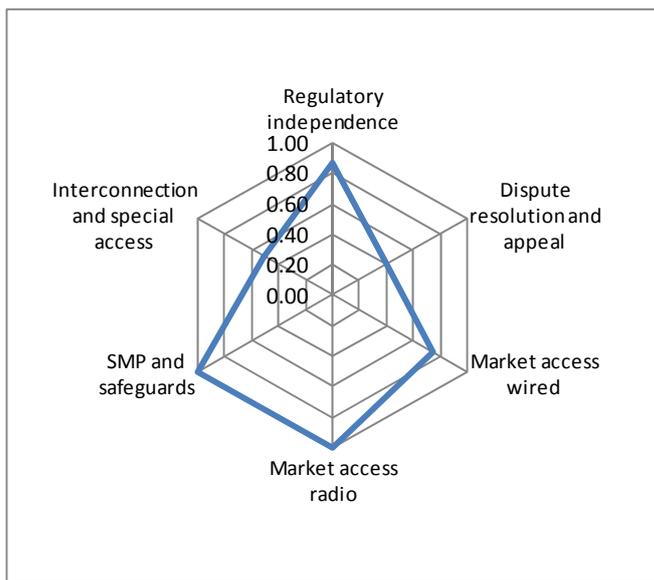
Following the expiry of the Telecommunications Sector Policy in December 2007, one of the key priorities for the telecommunications sector remains the adoption of the new sector policy by the Council of Ministers that would provide a clear time frame for implementation of competitive safeguards. A prerequisite for effective functioning of the national regulatory and policy-making authorities is resolving the uncertainty around the designation of its Director General and strengthening of the institutional capacity of RAK and the Ministry of Transport and Communications.

Other outstanding issues include implementation of local loop unbundling and RUO, tariff rebalancing, adoption of the universal service framework, licensing of UMTS and 3.5 GHz spectrum.

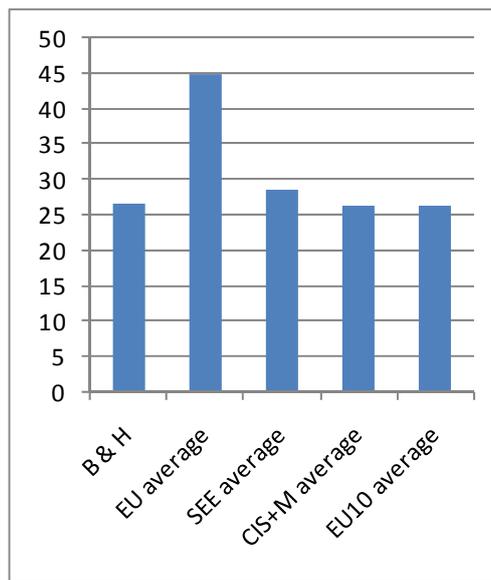
h) Assessment

Bosnia & Herzegovina is deemed to have "High compliance".

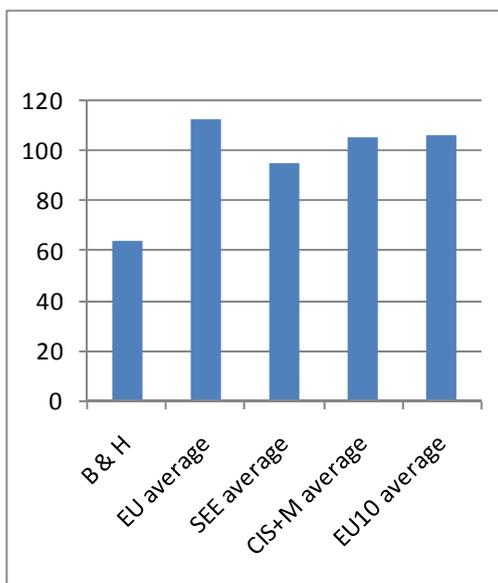
### Key indicators for Bosnia & Herzegovina



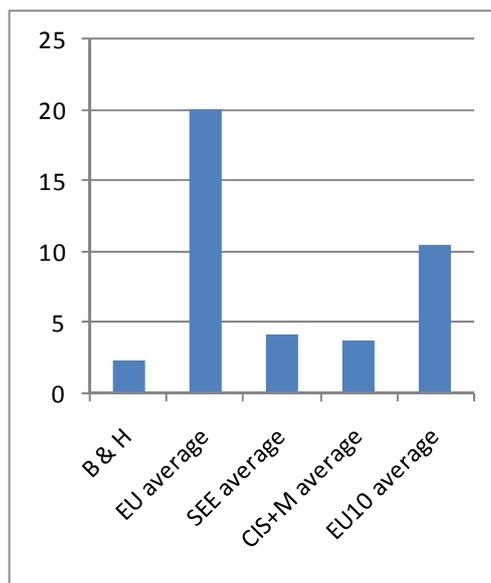
Regulatory spider diagram



Fixed network penetration



Mobile network penetration



Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

#### 4. Croatia

##### a) Institutional framework

The new Electronic Communications Law of June 19, 2008 (Official Gazette 73/2008) that came into force on July 1, 2008 is the main legal instrument that regulates the sector of electronic communications in Croatia and defines its institutional framework, including the responsibilities of the government, the relevant ministry and the national regulatory authority. The Electronic Communications Law replaces the previous Telecommunications Law of 2003 and is intended to bring the Croatian law in compliance with the principles of the EU 2003 regulatory framework for electronic communications.

The Ministry of Sea, Transport and Infrastructure is the central state administration body responsible for electronic communications. The Ministry is responsible for preparing the general principles, strategies and policy objectives for the development of electronic communications, adoption of implementing legislation within its competencies under the Electronic Communications Law and approval of the Radio Frequency Allocation Table upon proposal of the Council of the national regulatory authority. The Ministry also carries out inspection tasks related to the enforcement of the provisions of the Electronic Communications Law and relevant regulations.

The Electronic Communications Law establishes the Croatian Post and Electronic Communications Agency as a new regulatory authority taking over the tasks and responsibilities of the previous regulators for telecommunications (the Croatian Telecommunications Agency) and for postal services (the Postal Services Council). The Agency is an autonomous, independent body responsible for carrying out regulatory tasks defined under the Electronic Communications Law, including adoption and administration of implementing legislation within its competencies.

The Agency is governed by the Council consisting of seven members, including a Chairman and a Deputy Chairman, who are also full-time employees of the Agency during their term of office. The Council members are appointed and dismissed by Parliament upon proposal of the Government. The appointment is for a period of five years with the possibility of reappointment. The Agency's administrative service performing expert, administrative and technical tasks is managed by the Agency's Director appointed by the Agency's Council for a period of four years with the possibility of reappointment.

The Agency is self-financed and non-profit legal entity with its own budget funded from three main sources: addressing and numbering fees, radio spectrum usage fees and administrative fees set as a percentage of the annual revenues of the authorised electronic communications undertakings. Any surplus that may occur at the end of the year is transferred into the Agency's budget for the following year.

b) Regulatory independence

The Croatian state involvement in ownership and control of the former monopoly operator, Hrvatske Telekomunikacije (T-HT), has been significantly reduced because of several stages of privatisation process that started in 1999, with adoption of the Law on Privatisation of Hrvatske Telekomunikacije. In October 1999, the Government sold 35% of the shares to a strategic investor – Deutsche Telekom. After a further sale of 16% of the shares in October 2001, Deutsche Telekom became the owner of 51% of the shares. In February 2005, the government transferred 7% of its shares without compensation to Homeland War Veterans Fund.

On September 24, 2007 the Government sold a 32.5% share package through an IPO, with 25% reserved as priority for Croatian citizens and the other 7.5% distributed to institutional investors. The Government still controls 9.5% of shares, 7% of which will be distributed to the former and present T-HT Group employees during 2008.

The Electronic Communications Law stipulates that the members of the Agency Council may not be owners, stockholders or shareholders in regulated entities or perform any other tasks resulting in a conflict of interest.

The new Electronic Communications Law emphasises separation of the Agency's regulatory tasks from policy making and state administration. In particular, the provision on administrative supervision of the Agency by the Ministry under the previous Telecommunications Law is now removed. Furthermore, the Ministry may only issue published guidelines and instructions for the Agency about policy objectives and goals, but these should not influence the Agency's decisions in concrete cases.

The Law also explicitly states that the regulatory activities of the Agency activities are excluded from application of the provisions of the General Administrative Procedure Law, which means that the Agency's decision cannot be overturned by the Ministry on the grounds of administrative supervision. Appeals against the Agency's decision can only be brought before the Administrative Court of the Republic of Croatia. This is a procedure which may take several years.

c) Market access and authorisations

The Telecommunications Law of 2003 provided for a regime combining individual licences and a general authorisation regime. Depending on specific characteristics of the service and the use of limited resources, three categories of authorisations were issued by the Croatian Telecommunications Agency;

- concessions – for the provision public telecommunications services with the use of frequency spectrum;
- individual licences – for the provision of public telecommunications services in fixed network, leased lines, cable TV services and Public Mobile Radio services.
- general authorisation with notification to the Agency – for the provision of all other services including Internet access, VoIP, value added services (PRS).

The Electronic Communications Law introduces a general authorisation regime where electronic communications network and services can be provided without individual licences, subject to a general authorisation with a notification submitted to the Agency at least 15 days before the start of activities.

However, individual licences will continue to be issued by the Agency for the rights of use of the radio frequency spectrum.

d) Significant market power

Under the Telecommunication Law of 2003, the NRA analysed four national markets set out in line with the principles of the EU 1998 framework;

- public fixed telephone network and services (covering voice services and services for transmission of voice, sound, data, documents, pictures, etc.)
- leased lines
- public voice services in mobile networks
- interconnection

The Ordinance on conditions and procedures for relevant markets definition of October 2005 (Official Gazette 127/2005) provided for the market definition procedures by the NRA based on the EU 2002 regulatory framework and European Commission recommendation on relevant markets of 2003, but was not applied in practice.

The designation of operators with SMP was based on the use of the static threshold criterion of 25% market share (measured by revenue) in a relevant market together with an assessment of other criteria defined in Article 51 of Telecommunication Law of 2003. The regulatory obligations applicable to all operators with SMP were also essentially pre-defined by the law.

The following operators have been designated as having SMP in line with the Agency SMP decisions of September 14, 2006 and March 30, 2007:

- T-HT (T-Com) and its 100% subsidiary, Iskon, as having joint SMP in public fixed telephone network and services (covering voice services and services for transmission of voice, sound, data, documents, pictures, etc.)
- T-HT (T-Com) as having SMP in leased lines
- T-Mobile (T-HT's mobile subsidiary) and VIPnet as having SMP in public voice services in mobile networks
- T-Com, T-Mobile and VIPnet as having SMP in interconnection

The new Electronic Communications Law provides for the market analysis procedures, definition of relevant markets, SMP designations and imposition of remedies on SMP operators based on the principles of the Law on Competition and the EU 2003 regulatory framework. The new law requires the Agency to carry out market analysis procedures at least once every three years. Until the Agency has completed its market analyses under the new framework, the previous SMP designations and regulatory obligations will stay in force.

e) Competitive safeguards

The key competitive safeguards foreseen under the EU 1998 regulatory framework have been implemented in Croatia;

- CPS in fixed network is available since January 2005, and call-by-call CS since July 2006 for all types of calls: local, national, international and calls to mobile numbers;
- number portability is available in fixed networks since July 2005 and in mobile networks – since October 2006;
- RIOs published by fixed and mobile operators with SMP;
- RUO available since October 2005 and regulated wholesale bitstream access reference offer since December 2007.

Until now, the regulated interconnection and LLU charges were approved by the Agency on the basis of a benchmarking methodology.

f) Universal service and consumer issues

The Agency can designate one or more USO providers based on a public tender procedure. However, under the Telecommunications Law of 2003, a public voice telephone service provider with a market share above 80% could be required to provide USO without any tender procedure. In November 2005 the Agency T-HT designated T-HT as the USO provider for a five-year term.

All public telecommunications networks are required to provide free access to emergency services.

The Agency is the main body responsible for the implementation of the universal service and consumer issues, including the resolution of disputes between service providers and end users.

g) Outlook

Following the recent adoption of the new Electronic Communications Law<sup>16</sup> based on the principles of the EU 2003 regulatory framework, the main priorities of the Croatian regulatory authorities and the Agency, in particular, will be adoption of the implementing legislation, carrying out the market analysis procedure under the new law and development of regulatory cost accounting methodologies for ensuring effective price controls mechanisms in fixed and mobile networks.

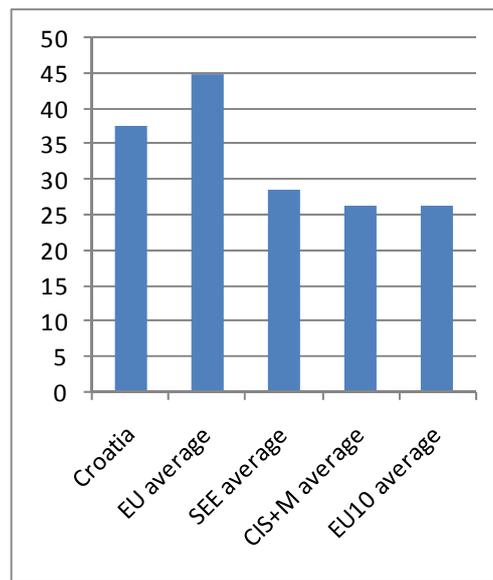
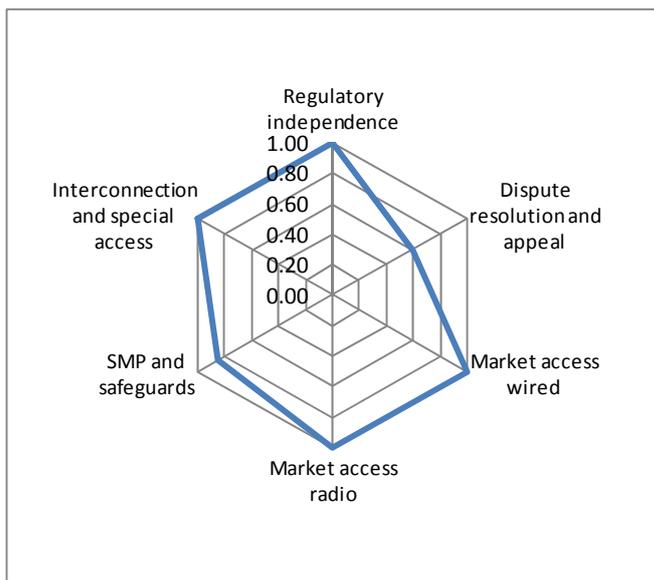
h) Assessment

Croatia is deemed to have "Full compliance".

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<sup>16</sup> The Electronic Communications Act of June 19, 2008 (Official Gazette 73/2008) entered into force on July 1, 2008

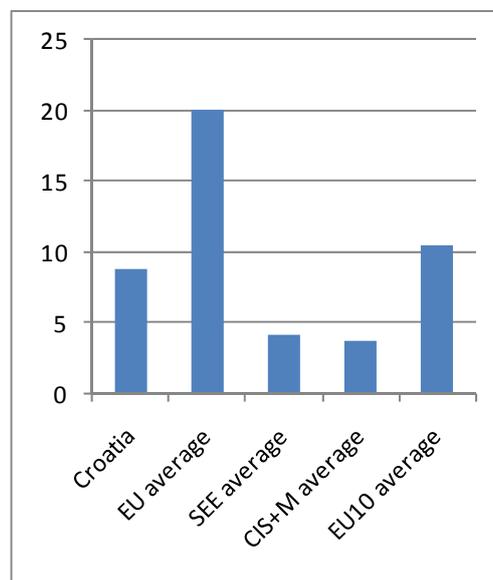
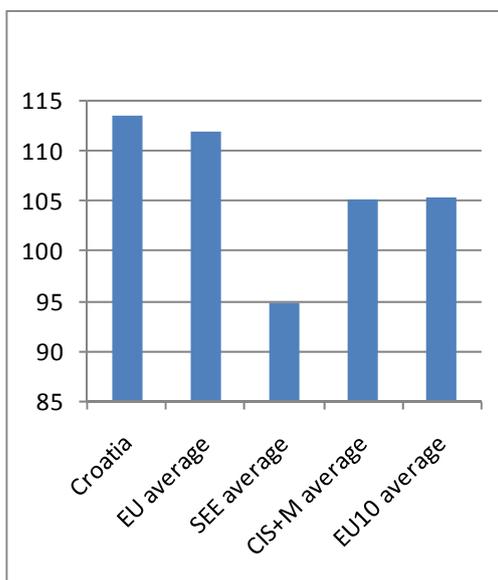
### Key indicators for Croatia



Regulatory spider diagram

Fixed network penetration

Even though Croatia is assessed as having “Full compliance”, it has been marked down in the area of dispute resolution and appeal because of a lengthy appeal procedure and for still being in a transition phase for market analysis as explained in the country section above.



Mobile network penetration

Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

## 5. FYR Macedonia

### a) Institutional framework

The primary law regulating the electronic communications sector is the Electronic Communications Law of March 5, 2005, which is based on the EU 2003 regulatory framework.

The law establishes the national regulatory authority and defines its responsibilities along with responsibilities of the government and the relevant ministry.

The Ministry of Transport and Communications is responsible for implementing the government policy and drafting legislation in electronic communications sector, as well as preparing the national strategy for the development of electronic communications and information technology.

The Agency for Electronic Communications (AEC) was established in July 2005 as an autonomous, independent authority responsible for carrying out regulatory tasks defined under the Electronic Communications Law, including adoption and administration of implementing legislation within its competencies, managing of frequency spectrum and numbering resources, carrying out analysis of the relevant electronic communications markets and imposing regulatory obligations on undertakings designated as having SMP.

AEC is governed by a Commission that consists of five members, including the President, who acts as a chairperson of meetings of the Commission. The President and the members of the Commission are appointed and dismissed by Parliament. AEC's day-to-day activities are managed by a Director, engaged as a professional full-time employee. The Director is appointed by the Commission following a public competition procedure. The term of office of the AEC Commission members and its Director is five years, with a possible reappointment for an additional consecutive term of office.

The Agency is self-financed and non-profit legal entity with its own budget funded from frequency and numbering fees, and administrative fees set as a percentage of annual revenue of the authorised electronic communications undertakings.

An appeal against the decisions of the AEC Director may be filed to the AEC Commission within eight days from the date of receipt of the decision with an obligation for the Commission to decide upon the appeal within fifteen days from the date of receipt. The decision of the Commission upon the appeal is final and can only be appealed before the Administrative Court.

b) Regulatory independence

The privatisation process of the incumbent operator, Makedonski Telekom, was launched in January 2000, when the Government agreed to sell 51% of the shares to Magyar Telekom, a major Hungarian telecommunication operator and part of the international Deutsche Telekom Group, who became the majority owner of the company. In 2006, further shares in Makedonski Telekom were sold to institutional investors. The Government still controls a 36.81% stake plus one golden share in the incumbent operator, Makedonski Telekom. The state ownership and control functions are exercised through the Ministry of Finance.

The Electronic Communications Law stipulates that the members of the AEC Commission and its Director may not be owners, stockholders or shareholders in regulated entities or perform any other tasks resulting in a conflict of interest.

Under the Electronic Communications Law, AEC has been granted the necessary powers to be able to perform its regulatory tasks. The Government has no right to intervene in the adoption of AEC's decisions on a discretionary basis and its role is limited to setting the amount of one-off fees for spectrum frequency licences awarded in a public tender procedure. As for the role of the Ministry, its approval is only foreseen in the context of designation of the universal service providers selected by AEC in a public tender procedure, although the agreement with the selected provider is concluded by AEC. The Ministry approves the selected USO provider after a public tender procedure which is performed by AEC, but AEC concludes an agreement with the selected USO provider.

The administrative capacity of the AEC has been undermined by the uncertainty around the appointment of its Director. Following a dismissal of the previous Director in September 2007, until July 2008 his successor has been operating in a capacity of the Acting Director, and no new appointment has been made by the AEC Commission. This development has contributed to delays in adoption of some important regulatory decisions.

c) Market access and authorisations

The Electronic Communications Law establishes general authorisation regime where electronic communications network and services can be provided without individual licences, subject to a

general authorisation with a notification submitted to AEC before the start of activities. AEC is required to provide a written confirmation of the registration of the notification within 15 days from its receipt. Registered providers of public electronic communications networks and/or services shall pay an annual administrative fee to AEC. The maximum amount of the fee may not exceed 0.5% of the annual gross revenue derived from the provision of public communications networks and/or services during the previous calendar year.

Individual licences are issued by AEC for the rights of use of the radio frequency spectrum.

However, the implementation of the Electronic Communications Law has been delayed in some aspects because of the concessions issued by the Government under the previous Telecommunications Law to Makedonski Telekom, its mobile subsidiary T-Mobile and mobile operator, Cosmofon. Under the Electronic Communications Law introducing a general authorisation regime, these concessions had to be harmonised with the new law within nine months from its entry into force in May 2005. This process has not yet been completed and the specific provisions set out in the concessions that cover authorisations for the use of frequencies, requirements in terms of quality of service and regulations of end user prices are still in force.

d) Significant market power

The Electronic Communications Law specifies the market analysis procedures, definition of relevant markets, SMP designations and imposition of remedies on SMP operators based on the principles of the Law on Competition and the EU 2003 regulatory framework.

In August 2005, AEC Commission adopted a decision on determination of relevant markets that sets out 18 relevant product markets according to the European Commission recommendation on relevant markets of 2003 and national geographic scope.

The law requires AEC to carry out market analysis procedures at least once every year, which has not been achieved in practice. So far, AEC has only completed its analysis of the wholesale call termination in individual mobile networks (market 16/2003), designating T-Mobile and Cosmofon as having SMP and imposing regulatory obligations.

Until AEC has completed its market analyses, Article 146 of Transitional provisions of Electronic Communications Law provides for the designation of Makedonski Telekom as having SMP in fixed voice telephone networks and services, including access to networks for data transmission and leased lines with the regulatory obligations of interconnection and access, CS/CPS, transparency, non-discrimination, publication of RIO, RUO and reference offer for minimum set of leased lines, accounting separation, price control and cost accounting obligations.

e) Competitive safeguards

The following competitive safeguards foreseen under the EU 1998 regulatory framework have been implemented in Macedonia:

- CS/CPS in fixed network has been available since January 2007 for national, international and calls to mobile numbers, and in May 2008 AEC amended the RIO of Makedonski Telekom to allow CS/CPS for local calls;
- RIOs of the fixed incumbent operator have been available since February 2006, while RIOs of the two mobile operators with SMP were submitted for approval by AEC in April 2008 and will be published as soon as the final decision has been adopted by the AEC Commission;
- RUO has been available since May 2006 but so far there has only been one agreement on LLU between Makedonski Telekom and the major alternative operator On.Net, owned by Telekom Slovenije;
- the regulated fixed interconnection and LLU charges were approved by AEC on the basis of a benchmarking methodology, but in May 2008 AEC amended the RIO and RUO of Makedonski Telekom to introduce cost-oriented charges based on forward-looking top-down LRIC methodology;

- number portability in fixed and mobile networks initially foreseen for July 2007 was delayed because of a cancelled procurement procedure for the centralised reference database equipment and should be available by September 2008<sup>17</sup>.

f) Universal service and consumer issues

The scope of universal service includes the following elements:

- access to publicly available telephone services at a determined geographical location, enabling making and receiving local, national and international telephone calls, facsimile communications and data communications at a minimum speed of 2400 bit/s;
- access to single telephone directory and directory enquiry services;
- provision of public payphones;
- equivalent access to and use of publicly available telephone services for disabled end users, including access to emergency calls services and information in single directory.

No universal service provider has been designated so far, although some of the elements have been provided by the incumbent operator within the scope of its concession agreement. AEC can designate one or more universal service providers based on a public tender procedure. In January 2008, AEC launched a public tender procedure with pre-qualification for Universal Service provider nomination. Two companies have passed the first phase and AEC prepares the tender documentation for the second phase.

All public telecommunications networks operators are required to provide free access to emergency services.

g) Outlook

The main priorities of AEC are the implementation of competitive safeguards, in particular LLU, number portability and reference interconnection offers for the mobile operators with SMP. Another issue is carrying out the market analysis procedure, effective enforcement of the regulatory obligations and implementation of the universal service framework.

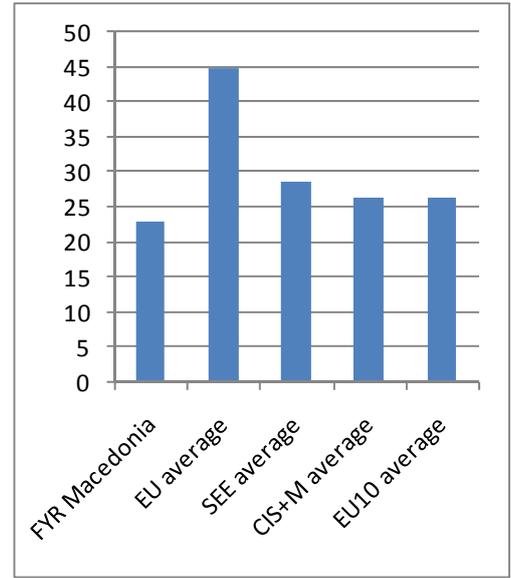
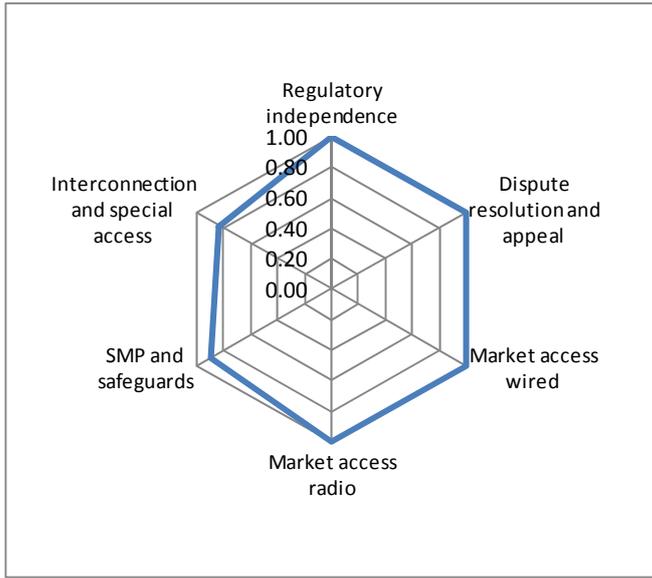
h) Assessment

FYR Macedonia is deemed to have "Full compliance".

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<sup>17</sup> Number portability was introduced in FYR Macedonia on 1<sup>st</sup> September 2008.

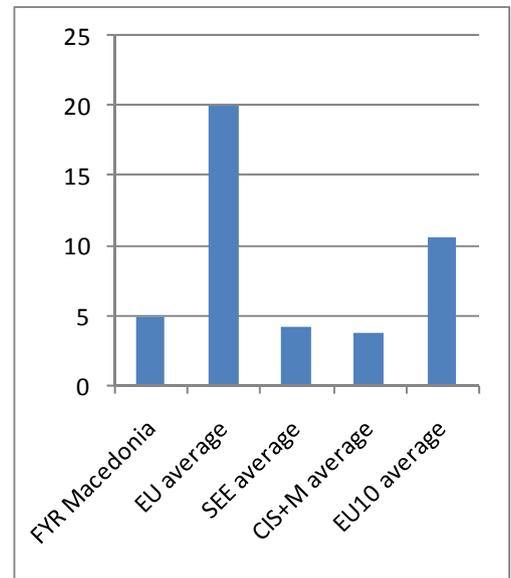
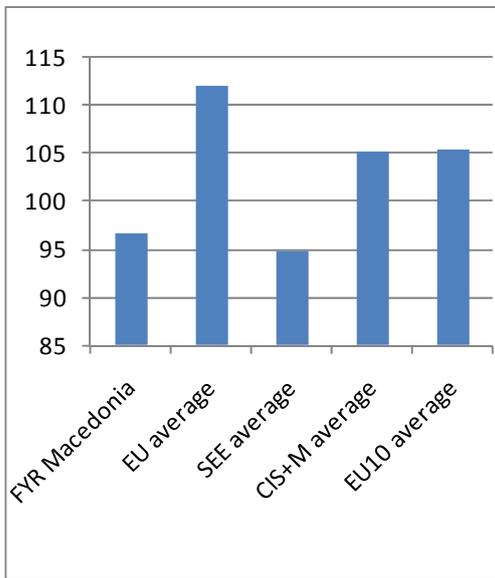
### Key indicators for FYR Macedonia



Regulatory spider diagram

Fixed network penetration

Even though FYR Macedonia is assessed as having “Full compliance”, it has been marked down in the area of SMP and safeguards for late implementation of number portability and in the area of interconnection and special access for lack of effective local loop unbundling as explained in the country section above.



Mobile network penetration

Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

## 6. Montenegro

### a) Institutional framework

The Ministry of Maritime Affairs, Transport, and Telecommunications is the central state administration body responsible for the telecommunications sector. Its main responsibilities in the field of telecommunications include;

- developing national strategies, policy and legislation for telecommunications;
- passing implementing regulation within its competencies; and
- determining the amount of registration and licence fees for telecommunications service providers and the fees for radio-frequencies.

The Agency for Telecommunications and Postal Services (Agentel), will be replaced in August 2008 by the new regulator (named Agency for Electronic Communications and Postal Affairs) Agentel, was founded as a legal entity in 2001 by a Decision of the Government of Montenegro. It was a regulatory body, functionally independent of all entities operating telecommunications networks or providing telecommunications services. The primary task of Agentel was to implement the regulatory framework for telecommunications and to monitor the compliance of telecommunications service providers with legal and licence requirements.

Agentel had the authority to develop and adopt regulations in line with the Law on Telecommunications and within its competencies, to issue licences and authorisations to telecommunications network operators and service providers, to manage the national numbering plan and assign numbering resources. The authority of Agentel to adopt regulations was challenged in 2006 by a major operator, supported in the challenge by the Ministry, in a court application about the validity of the Rulebook on Access and Interconnection. The Constitutional Court decided that Agentel possesses the authority to adopt regulations. The Agency was also responsible for drafting the national frequency plan and presenting it for approval by the Government.

The Agency was established as a self-financed entity and the funding for its activities comes from the three main sources; licence and registration fees, numbering fees and spectrum fees. If these resources are not enough to cover the costs of the Agency's activities, the extra funds are provided from the state budget. However, if income exceeds expenditure for a fiscal year, the surplus is transferred to the state budget.

The decisions made by the Agency in the administrative procedure were final. However, it was possible, in line with the Law on Administrative Disputes, to submit an appeal against an Agency's decision to the Supreme Administrative Court of Montenegro, within 30 days starting from the date of submitting official records of the decision to the party concerned. The Administrative Court ruled on the basis of the correct application of the law, and not the merits of a specific case.

### b) Regulatory independence

Montenegro no longer has state ownership in any of the telecommunications operators. In March 2005, the Government of Montenegro sold its 76.53% shareholding in Crnogorski Telekom to Magyar Telecom (formerly Mátav), a subsidiary of Deutsche Telekom. Private investors now hold 23.47% of the shares which are quoted on the stock exchange.

Until now, the Agency has been able to exercise its functions with relatively little political or arbitrary intervention by the Government or by the Ministry, despite the fact that the Government has been appointing the Agency management.

Regulatory independence – under the new draft Law on Electronic Communications which was forwarded by Government to Parliament in mid 2008 (and which should become law), Agentel will lose much of its regulatory independence and many of its enforcement and monitoring functions. The draft law also proposes to make the Ministry the first instance appeal body in the judicial review process of the Agency decisions. Although the Ministry has indicated its willingness to make further revisions to this draft law over the next several years, it is unclear whether any future revisions will return the independence which Agentel now possesses under the law. The draft Law does not meet many of the requirements of EU Directives and moves Montenegro

farther from compliance with EU Directives than the law it replaces. As a result, the draft Law will require substantial revision before accession by Montenegro to the EU.

c) Market access and authorisations

Montenegro was among the first in the SEE Region to formally introduce full liberalisation of local, domestic long distance and international networks and services on January 1, 2004. However, the high Montenegrin licensing fees, especially for international services, created a barrier to entry that was only reduced in April 2007.

Therefore, in practice competition has only emerged in mobile networks, with two mobile operators licensed in 2002: T-Mobile, the incumbent's mobile subsidiary, and Promonte, owned by the Norwegian operator, Telenor. The third mobile operator, M-Tel, owned by the Serbian incumbent entered the market in 2007. In practice, there is increasing competition in the mobile sector, particularly since M-Tel's entrance to the market, yet still not the full aggressive competition seen in some other EU markets among the large mobile players.

Substantially less competition exists in the fixed line sector. Some progress in licensing of fixed networks and services was achieved in late 2007 and early 2008. Following several subsequent public tender procedures, the Agency issued eight licences for the provision of VoIP services and four for Fixed Wireless Access, with the use of the 3.4-3.8 GHz spectrum. So far, only one alternative operator, M-Tel has launched commercial operations on a large scale.

The lack of competing infrastructure in the fixed line sector has limited the ability of competing ISPs to provide service. With the construction by M-Tel of new competing infrastructure and the recent agreement by T-Com to provide an updated RIO covering a wider range of services and providing for lower interconnection charges, improved competition in the ISP sector is hoped for.

d) Significant market power

Under the Telecommunications Law of 2000, the Agency has the discretion to define relevant markets applying competition law principles. However, the undertakings with SMP are designated based on the static 25% market share threshold, sometimes together with assessment of other criteria.

Specific obligations related to access and interconnection that apply to all operators with SMP are set out in the Ordinance on Access and Interconnection of October 10, 2006

So far no comprehensive market analysis procedures have been completed by the Agency, but by virtue of the provision of the new Law on Electronic Communications, the fixed incumbent operator, Crnogorski Telekom, is deemed to have SMP in fixed voice telephony network and services, including the market of access to network for data transmission and leased lines while all telephone network operators are designated as having SMP in call termination on their respective networks. In addition, the national broadcasting centre is designated to have SMP in the distribution market and in emission of broadcasting signals. The new Law on Electronic Communications requires the new regulatory agency to complete a market analysis and identify operators with SMP by August 2009.

e) Competitive safeguards

Only a few of the key competitive safeguards foreseen under the EU 1998 regulatory framework have been implemented in Montenegro. Some of these will be eroded if the new draft Law is adopted by Parliament in its existing form.

The first RIO of Crnogorski Telekom was published in December 2004. In April 2008, the Agency approved a new RIO introducing some reductions to interconnection charges based on the EU benchmarks and a wider range of services covered by the RIO. First RIOs of T-Mobile and Promonte should be submitted for NRA approval in 2008.

CS/CPS was introduced in December 2007 and applies to fixed and mobile networks.

No clear deadlines have been established for the implementation of number portability and local loop unbundling.

f) Universal service and consumer issues

There is no established framework for the universal service in Montenegro so far.

g) Outlook

The key outstanding issues that must be addressed are implementation of the competitive safeguards, market analysis procedures and methodologies for effective price controls of the wholesale tariffs. The independence of the regulatory body will be substantially diminished if the new draft Law on Electronic Communications is adopted.<sup>18</sup>

h) Assessment

Montenegro is deemed to have "Medium compliance" under its pre-August 2008 Law on Electronic Communications.

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<sup>18</sup> Footnote on Montenegro October 2008

Since this assessment for Montenegro was carried out, under the new Law on Electronic Communications, adopted in August 2008, the independence of the regulatory agency was substantially reduced and many of the functions of the regulator were taken over by the Ministry for Maritime Affairs, Transport and Telecommunications. Under the new Law;

- a new Agency was created, the Agency for Electronic Communications and Postal Affairs; the new Agency is to take over much of the assets and staff of the old Agentel
- the new Agency's authority and role in developing regulations is unclear; the Agency is required to provide "expert foundation for drafting regulatory acts" but is not given the authority to adopt regulatory acts, only to "adopt procedures and norms for application of the Law and sub-laws", The Ministry is given the authority to "adopt bylaws" which presumably refers to regulations. In practice, it is believed that the regulator will develop draft regulations for Ministry approval;
- many inspection functions previously conducted by the regulator will now be conducted by the Ministry;
- the Ministry was made the first instance appeal body in the judicial review process of the Agency decisions;

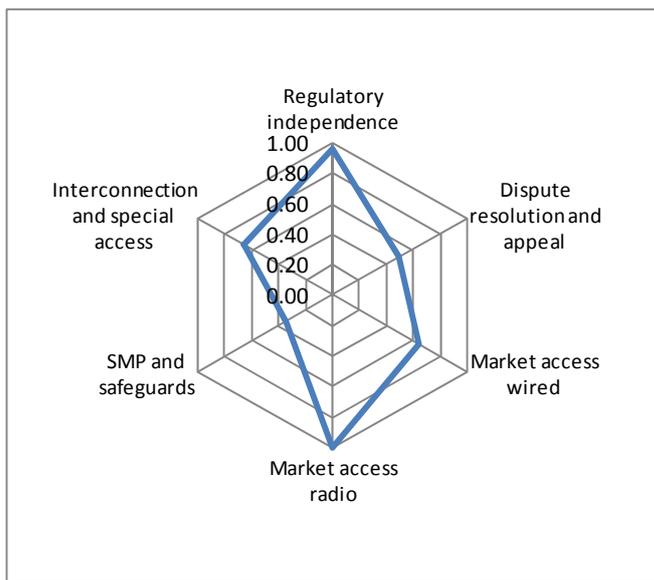
It is expected that the new Agency Council will be appointed in late 2008 and the new Executive Director will be selected shortly thereafter, under short timeframes dictated by the new law. In addition, the Ministry working with Agentel is required to develop and adopt 22 new regulations to implement the new law by August 2009. Given the limited technical capacity at the Ministry, it will be difficult for the Ministry to fulfil its new roles under the new law without a substantial increase in trained staff, which may be difficult under current Government salary restrictions and funding availability.

Although the Ministry indicated its willingness to make further revisions to the new law over the next several years, it is unclear whether any future revisions will return the substantial independence which the regulator possessed under the former law. The new law does not meet many of the requirements of EU Directives and moves Montenegro farther from compliance with EU Directives than the existing law it replaces. As a result, the draft Law will require substantial revision prior to accession by Montenegro to the EU.

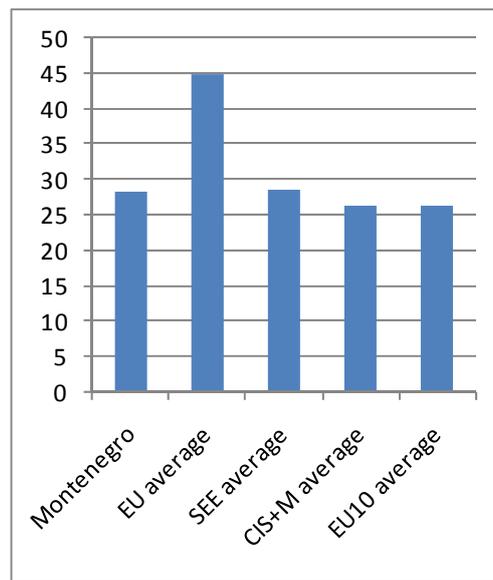
As noted above, the independence and responsibilities of the regulatory body have been substantially diminished under the new Law on Electronic Communications and substantial revisions are required to that law to conform to EU Directives prior to entry by Montenegro into the EU.

It is proposed to reassess all EBRD countries of operation in spring 2009. The latest situation in Montenegro (outlined above) may lead to a reduction in the score for regulatory independence, with the possibility of a downgrade of the overall assessment from "Medium" to "Low" compliance.

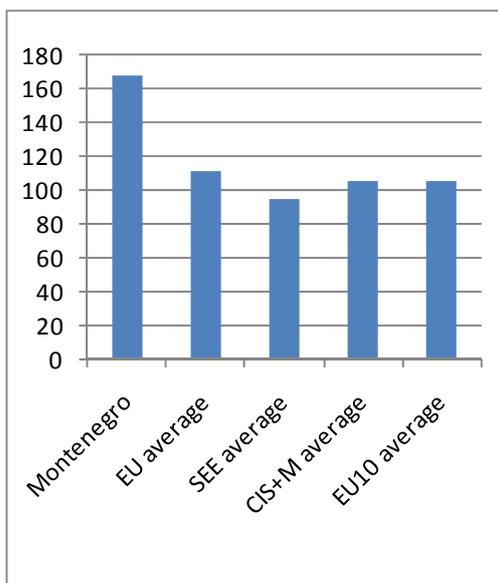
### Key indicators for Montenegro



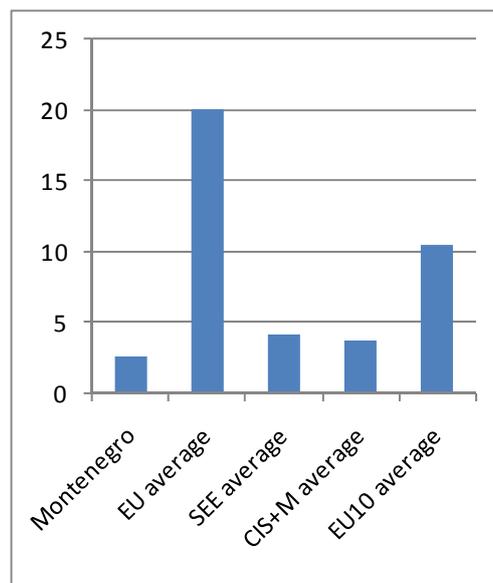
Regulatory spider diagram



Fixed network penetration



Mobile network penetration



Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

## 7. Serbia

### a) Institutional framework

The Ministry of Telecommunications and Information Society (the “Ministry”) is the central state administration body responsible for telecommunications, postal services and information society. In the field of telecommunications, the Ministry is responsible for:

- drafting national strategy for telecommunications and relevant legislation;
- defining the scope of the universal service;

- preparing the Radio Frequency Bands Allocation Plan and adopting the Radio Frequency Assignment Plan based on the proposal made by the regulator;
- deciding on the number of individual licences for the provision of public telecommunications networks and services where the number of licences is limited, the timing of tender procedures and specific conditions for issuing these licences, and the minimum reserve amount for the one-off licence fees;
- executing state ownership functions in Telekom Srbija through the functions of Public Enterprise of PTT Serbia.

The Telecommunications Law of 2003 established the Republic Telecommunications Agency (RATEL), which is an independent national regulatory authority for telecommunications. RATEL is an autonomous legal entity, not subordinated to any government authority and functionally independent of any entity engaged in operating telecommunications networks and providing services. The primary task of RATEL is implementing the national telecommunications development strategy and the regulatory framework for telecommunications, adopting implementing legislation within its competencies and monitoring the compliance of telecommunications service providers with legal and licence requirements.

RATEL is managed by the Managing Board that consists of a Chairman and four Members who are appointed and relieved from office by the National Assembly, at the proposal of the Government. Their term of office is five years with a possibility of a reappointment for one more consecutive term. The Managing Board of RATEL appoints the Executive Director of the Agency who is responsible for the administration and operational issues.

RATEL is self-financed and non-profit legal entity with its own budget funded from annual licence and authorisation fees (one-off licence fees are paid directly into the government budget), spectrum and numbering fees and other fees, such as certification and technical inspection. Every year, the Managing Board of RATEL approves its financial plan. If its annual accounts at the end of the year show a surplus of total revenue over expenditures, it is transferred into the Government budget.

The statutes of RATEL, approved by its Managing Board regulate its internal organisation and procedures. The regulations governing the salaries of civil servants do not apply to its Managing Board and employees, which enables the regulator to decide on the salary level.

The decisions made by RATEL in the administrative procedure are final. However, it is possible, to submit an appeal against a RATEL decision to the Supreme Administrative Court.

#### b) Regulatory independence

Although, RATEL is functionally and institutionally separated from the state controlled incumbent operator, the effective separation of the regulatory functions from operational activities has not been achieved in practice. The ministry responsible for the telecommunications policy is also responsible for the state ownership functions in the incumbent operator, Telekom Srbija.

Presently, the government controls 80% of the company and retains a 'golden share' that gives the power to veto all the important decisions of the company. The Greek incumbent operator, OTE controls the remaining 20% of the capital in Telekom Srbija.

While the Telecommunications Law of 2003 provides for substantial administrative independence of RATEL in exercising its regulatory tasks and adopting implementing legislation within its competences, some of the provisions of the Law on State Administration require RATEL to obtain an opinion on compliance of the regulation with the Constitution and other relevant laws and regulations from the relevant ministry (in this case, the Ministry of Telecommunications and Information Society). The Law on State Administration also allows the Ministry as the supervisory authority to take over the performance of RATEL's activities for a maximum period of 120 days if RATEL, despite multiple warnings, fails to perform its functions properly or punctually. These provisions can potentially undermine the administrative independence of RATEL, as illustrated by a recent development.

On June 12, 2008 the Minister of Telecommunications and Information Society passed a decision, whereby the Ministry would take over all the powers and responsibilities performed by RATEL for 120 days, starting on June 13, 2008. The arguments presented by the Ministry

contained allegations of illegality, irregularities and delays in performance of RATEL. In particular, the Ministry referred to an illegal allocation of an access code to one of the mobile operators and the failure of RATEL to comply with the Ministry instructions requiring the regulator to amend some of its proposed draft regulations in compliance with the Ministry's opinion and to suspend publication in the Official Gazette of any of RATEL's regulations not approved by the Ministry. However, on June 19, 2008 the government decided to revoke the Ministry decision, clarifying the application of the supervisory powers of the Ministry under the Law on State Administration. In particular, the government stated that RATEL is under no obligation to amend its regulations in line with the Ministry opinion. If RATEL is of the view that it should not act along the Ministry proposal, it is still authorised to adopt the regulation. In such a case, the Ministry would be obliged to propose to the government to revoke RATEL's regulation (if it is considered not compliant with regulations or general enactments of Parliament or the government) or to suspend the regulation initiating the procedure before the Constitutional court (if is not compliant with the Constitution and the law). The government concluded that the Ministry decision of June 12, 2008 violated the Law on State Administration.

c) Market access and authorisations

Under the Telecommunications Law of 2003, the fixed incumbent operator was granted an exclusive right until June 9, 2005 to provide all types of fixed telecommunications services, with the only exception of Internet and cable TV services that had been open to competition. In practice, Telekom Srbija is still the only licensed public fixed voice telephony operator and the only operator authorised to interconnect with international telecommunications networks.

Competition has only emerged in mobile services where two operators, Telenor and VIPnet, licensed by RATEL in 2006, are providing services in competition with the incumbent's mobile subsidiary. To a certain extent, there is also competition in the provision of Internet services. However, most of the ISPs provide their ADSL services based on the incumbent's wholesale offer and rely on international connectivity from the incumbent.

The delayed liberalisation of the sector is largely because of the lack of political will to introduce competition into the fixed telephone services and delayed adoption of the implementing legislation on licensing and interconnection aspects. Effective rebalancing of the incumbent's tariffs would be one of the prerequisites for liberalisation, but so far, there have been no initiatives from the Serbian government to allow any significant changes to Telekom Srbija's retail tariffs that are subject to price caps set by the Ministry of Finance (for comparison, Telekom Srbija's fixed telephone monthly rental fee is the lowest among the SEE Region and is about 1/15 of the EU 27 average).

Another factor is the lack of a licensing framework for fixed telephony services. Under the Telecommunications Law, provision of any services that require the use of limited resources such as frequencies and numbers from the national numbering plan would be subject to an individual licence issued by RATEL based on a public tender procedure. The minimum one-off licence fee, the number of licences to be issued and the timing of the tender procedure are decided by the Ministry. Despite applications for fixed voice telephony licences from interested parties, no decision has been taken so far on a tender procedure.

d) Significant market power

RATEL has the discretion to define relevant markets applying competition law principles. However, undertakings with SMP are designated on the basis of the static 20% market share threshold, measured by number of subscribers, which RATEL may modify to 25%. Basic remedies for operators with SMP are set out in the Telecommunications Law, but RATEL has discretionary powers to decide on the application of specific obligations.

On March 3, 2006 RATEL designated Telekom Srbija as having SMP in public fixed telephone network and services and imposed obligations of network access and interconnection, non-discrimination, cost orientation, transparency, prohibition of cross-subsidisation and retail price control. On February 19, 2007 RATEL designated SBB, the major cable TV operator, as having SMP in radio and television programme distribution via cable network and imposed obligations of accounting separation and retail price control.

e) Competitive safeguards

None of the key competitive safeguards foreseen under the EU 1998 regulatory framework have been implemented in Serbia.

A strategy for the development of telecommunications in the Republic of Serbia from 2006 to 2010 was adopted by the Government in October 2006. Although the document recognises the importance of liberalisation, the objectives in the strategy and the action plan are not accompanied by any deadlines for their fulfilment. This means that there is still no basis for the entry of alternative operators, since it is unclear when the necessary competitive safeguards will be introduced.

f) Universal service and consumer issues

Under the transitional provisions of the Telecommunications Law, Telekom Srbija was required to provide “the initial scope” of universal services until expiry of its exclusivity rights in June 2005. The initial scope of universal services was defined as comprising access to a public fixed telephone service enabling functional Internet access; special measures for disabled and socially disadvantaged users; free access to emergency services; public payphones and access to telephone directory and directory enquiry services.

Following the expiry of Telekom Srbija’s universal service obligations, the Ministry must define the scope of the universal service following a proposal from RATEL, while RATEL has to designate the universal provider and establish the universal service fund. None of this has been achieved yet.

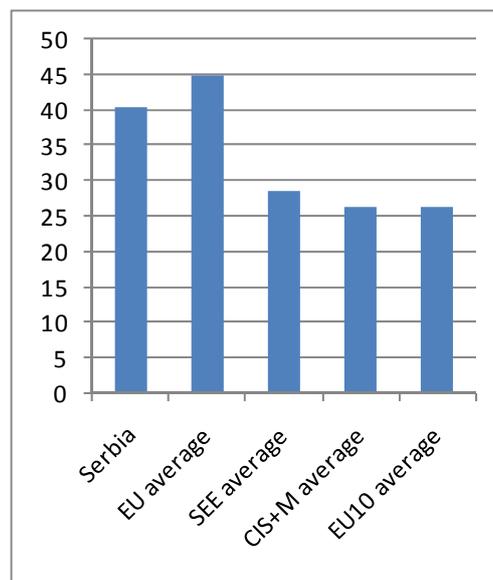
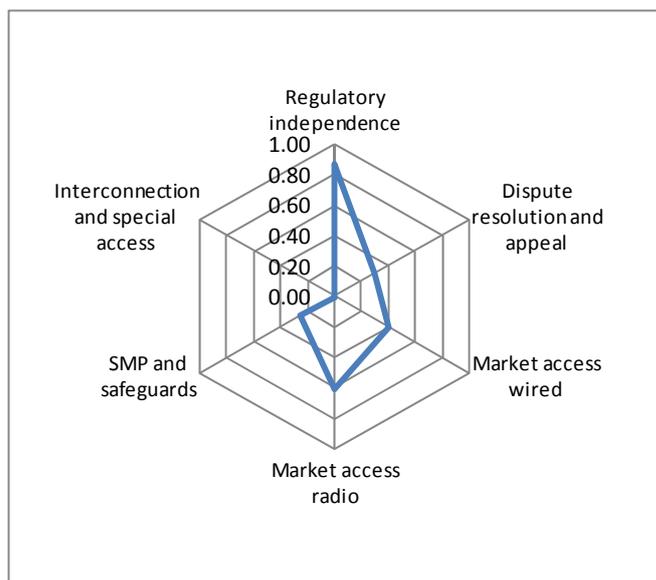
g) Outlook

In general, Serbia is still at an early stage of liberalisation. The adoption of the necessary implementing legislation has been slow which is often because of the insufficient administrative capacity and the level of expertise in the relevant authorities, which needs to be strengthened. The main outstanding issues that must be addressed are tariff rebalancing and implementation of the competitive safeguards. There is also a need to develop cost models in order to set cost-oriented interconnection tariffs.

h) Assessment

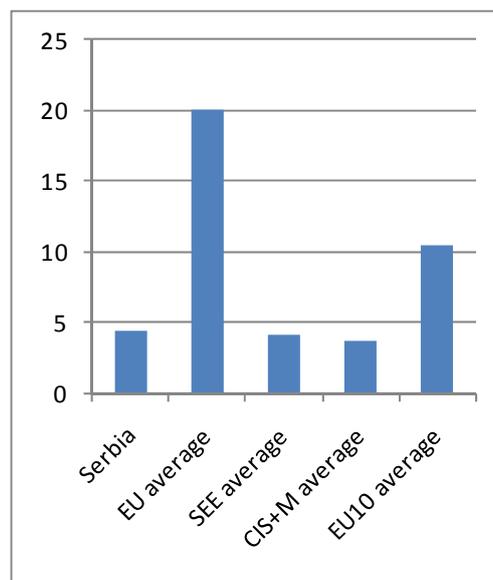
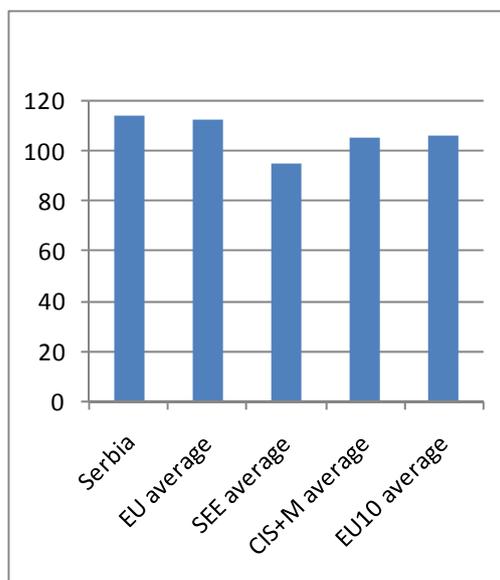
Serbia is deemed to have “Low compliance”.

### Key indicators for Serbia



Regulatory spider diagram

Fixed network penetration



Mobile network penetration

Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

## 8. Kosovo

### a) Institutional framework

Since 1999, Kosovo's institutional setup has been governed by the United Nations Security Council Resolution 1244 (UNSCR 1244) adopted on June 10, 1999. The resolution affirmed the commitment to the sovereignty and territorial integrity of the Federal Republic of Yugoslavia (now the Republic of Serbia), but also called for substantial autonomy and meaningful self-administration for Kosovo.

UNSCR 1244 established an interim international civilian administration, the United Nations Interim Administration Mission in Kosovo (UNMIK) headed by the Special Representative of the Secretary General (SRSG). Under the constitutional framework promulgated by the SRSG, administrative responsibilities in Kosovo have been divided between UNMIK and the Kosovar Provisional Institutions of Self-Government (PISG), comprising the President, the parliament (Assembly) and the cabinet of ministers headed by the Prime Minister.

In February 2008, the Assembly of Kosovo unilaterally declared Kosovo's independence as the Republic of Kosovo. A new constitution for the Republic of Kosovo was approved by the Parliament of the Republic of Kosovo in April 2008, which came into force on June 15, 2008

By June 2008, Kosovo's independence had been recognised by 43 countries. The UN Security Council remains divided on the issue: of the five members with veto power, USA, UK, and France recognised the declaration of independence, while Russia and China did not. The European Union has no official position towards Kosovo's status, although a majority of its Member States have formally recognised Kosovo (20 out of 27).

Under the constitutional framework established by the international administration, the specific responsibilities reserved for UNMIK included two aspects particularly relevant for the telecommunications sector:

- administering state-owned and socially owned companies through the Kosovo Trust Agency (KTA), including the incumbent fixed and mobile operator, Post and Telecom of Kosovo (PTK); and
- managing the radio frequencies carried out by the Frequency Management Office (FMO) with administrative and spectrum assignment functions implemented by the national regulator, TRA.

The declaration of independence has facilitated the already foreseen transfer of these responsibilities from UNMIK to the national institutions. In particular, KTA is now being transformed into the Kosovo Privatisation Agency under the Ministry of Economy and Finances, while all spectrum management functions are transferred to TRA.

The Ministry of Transport and Communications (MTC) has the responsibilities to develop policies and legislation for the provision of services and facilities in the sector of telecommunications and information technology. In the field of telecommunications, the Ministry monitors compliance with the European standards covering tariffs and fees, quality of service and technical standards; develops policies to promote competition and better services for consumers.

The Telecommunications Regulatory Authority (TRA) was established under the Telecommunications Law of May 2003 (UNMIK Regulation 2003/16) and officially started its operations in January 2004. The TRA is responsible for implementing the telecommunications sector policy in compliance with the relevant legislation, adopting regulations and instructions under the Telecommunications Law, issuing licences and authorisations for the provision of telecommunications networks and services in Kosovo, management of the numbering and spectrum resources (the latter, until recently, in coordination with UNMIK).

TRA is managed by the Board that consists of five Members who are appointed and relieved from office by the National Assembly, at the proposal of the Government with the recommendation from the Minister of Transport and Communications. Their term of office is five years with a possibility of a reappointment for one more consecutive term. The Minister of Transport and Communications, acting in consultation with the Prime Minister designates one member of the Board to be the Chairman, who is also responsible for the administration and operational issues.

TRA is established as a self-funded body and non-profit legal entity, with the main sources of financing collected through the application of fees under the Telecommunications Law, including authorisation, licensing, and assignment of numbers and rights to use spectrum resources. The TRA budget is approved by the Assembly and all surplus funds collected by TRA at the end of the year are transferred to the Kosovo consolidated budget.

Official acts and decisions of TRA can be appealed before the administrative court by any party with standing through the appeal procedures.

## b) Regulatory independence

The incumbent operator, PTK, is 100% state-owned and until recently, the institution responsible for its control was the Kosovo Trust Agency within the UNMIK administration, which is now being transformed into the Kosovo Privatisation Agency under the Ministry of Economy and Finances (operationally separate from MTC and TRA). The subject of PTK's privatisation was addressed in the Telecommunications Sector Policy adopted by the government of Kosovo in June 2007.<sup>19</sup>

Although TRA was established under the Telecommunications Law as an independent regulatory body, with the authority to issue regulations and instructions for implementation of the law, its operations have been subject to political and administrative interference from UNMIK and the Kosovo government.

One instance of such an arbitrary intervention by UNMIK, was the cancellation by the SRSG of the first tender procedure for the second mobile licence conducted by TRA in 2004. The basis for this intervention was the responsibility for spectrum management ultimately reserved to UNMIK.

Another factor undermining TRA's status as an independent institution is the existence of unclear or inconsistent provisions in the Telecommunications Law, in particular:

- Section 4(1) of the Law stating that the TRA is a body "within the Ministry" and
- Section 5(4) stating that "all funds collected by the TRA shall be deposited in line with the applicable budget procedures pertaining to all Government funds in Kosovo."

These provisions have been interpreted as barring TRA from collecting and keeping its own funds and from having its own bank account. As a result, TRA was required by the Ministry of Economy and Finances to make all payments through the treasury, the same as all other budgeted agencies, and in practice was not able to manage its funds independently. Furthermore, under the treasury payment procedures, the salaries of TRA staff have been linked to civil servant pay scales, which made it impossible for TRA to decide independently on its staff salaries and to be able to attract and retain professional resources.

On June 13, 2008 the Assembly adopted a set of amendments to the Telecommunications Law that are intended to strengthen the TRA's independence. In particular, the amendments;

- remove all references to UNMIK and its Frequency Management Office (FMO) and the SRSG;
- establish TRA effectively as the sole authority to allocate radio frequency spectrum, subject to "Assembly review and approval in writing" of the TRA spectrum resource plan;
- remove the confusing definition of TRA as a body "within the Ministry".

## c) Market access and authorisations

The telecommunications market in Kosovo was formally liberalised following the adoption of the Telecommunications Law in May 2003, but the practical implementation was delayed. The first authorisations to the three national ISPs were issued in May 2005 and a comprehensive licensing framework was adopted only in September 2005. At the same time, PTK maintained its exclusive rights over access to the international gateway facilities until December 31, 2007.

On March 6, 2007 TRA granted a licence for a second 2G mobile operator in Kosovo to IPKO, a company in majority owned by Telekom Slovenije, following an international tender procedure. On September 8, 2006 IPKO was also granted the second licence for the provision of national public fixed telephone network and services. Since the beginning of 2008, the TRA has granted four international services licences.

In addition to the operators licensed by TRA, two Serbian mobile operators maintain their presence in Kosovo without being authorised by the Kosovar authorities.

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<sup>19</sup> In October 2008, the Kosovo government decided to start the process meant to lead to the privatisation of the local telecommunications incumbent, PTK, by setting up the responsible commission,

d) Significant market power

Under the Telecommunications Law, TRA has the discretion to define relevant markets applying competition law principles. However, the undertakings with SMP are designated on the basis of the static 25% market share threshold, sometimes with an assessment of other criteria.

Basic remedies for all operators with SMP are defined by the Law, including the obligations of network access and interconnection, transparency, cost orientation and requirement to publish all the necessary information related to the provision of access and interconnection.

So far, no comprehensive market analysis procedures have been carried out by TRA, but by virtue of the provision of the Telecommunications Law, the fixed incumbent operator, PTK, is deemed to have SMP in fixed networks and services, while its mobile subsidiary, Vala, has SMP in mobile networks and services.

e) Competitive safeguards

Most of the main competitive safeguards foreseen under the EU 1998 regulatory framework have not been implemented in Kosovo.

- The first RIO of the fixed incumbent operator, PTK, was approved by TRA on January 12, 2007. Furthermore, TRA mediated in the interconnection dispute between Vala and IPKO, and set out mobile termination rates applying a benchmarking methodology.
- In May 2007, TRA adopted a policy framework for MVNO operations and issued licences to two MVNOs. There are no specific obligations for MVNO access, but MVNO operations can be launched subject to a commercial agreement between an MNO and a service provider.

As for the implementation of CS/CPS, number portability, local loop unbundling; no clear timeframe has been defined yet. To some extent, the implementation of number portability was delayed by the fact that no country code has been assigned to Kosovo by the ITU, and the Serbian country code (+381) is being used by fixed networks, while the mobile operators use two other country codes: Vala uses Monaco's code (+377), while IPKO uses the Slovenian code (+386).

f) Universal service and consumer issues

There is no established framework for universal service in Kosovo so far. The Telecommunications Law provides that TRA shall adopt a comprehensive framework for the provision of universal service in Kosovo covering the scope of the universal service, the designation of providers and the funding mechanism. The Telecommunications Sector Policy adopted by the government of Kosovo in June 2007 envisaged that within 12 months from the adoption of the policy, the Ministry and TRA would have to present a proposal for implementation of universal service for a consultation.

According to the Policy, the minimum scope of universal service should include:

- Access to publicly available telephone services enabling users to make and receive local, national and international telephone calls, and fax communications, and have functional Internet access, at reasonable prices
- Access to information in the single directory
- Access to public pay telephones from which it is possible to make emergency calls without having to use any means of payment
- Measures for disabled end users that enable equivalent access to publicly available telephone services.

According to the policy document, one of the possible alternatives to the designation of the universal service providers would be the inclusion of the universal service obligations into the licences of telecommunications operators and service providers.

So far no draft proposal has been presented by the Kosovo authorities. Without an explicit universal service framework, several elements of the universal service have been included as obligations within the scope of the licence conditions of the incumbent operator, PTK, and the new entrant alternative operator, IPKO.

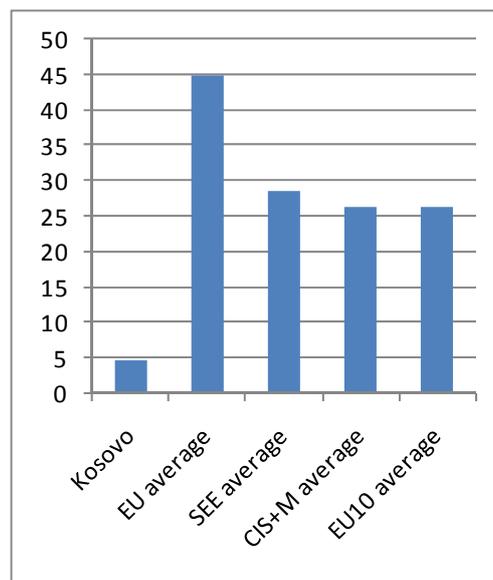
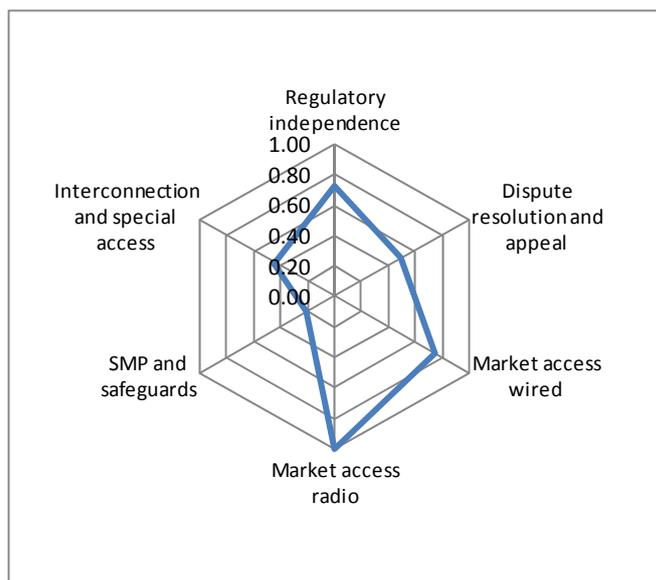
g) Outlook

The main challenge for the telecommunications sector is to ensure the functioning of TRA as a truly independent institution, in line with the recently adopted amendments to the Telecommunications Law. Another closely related subject is improving its expertise and administrative capacity. The administrative capacity of the Ministry of Transport and Communications also needs to be strengthened. Other outstanding issues are the adoption of the secondary legislation that is still mostly in the drafting phase and the effective implementation of the competitive safeguards.

h) Assessment

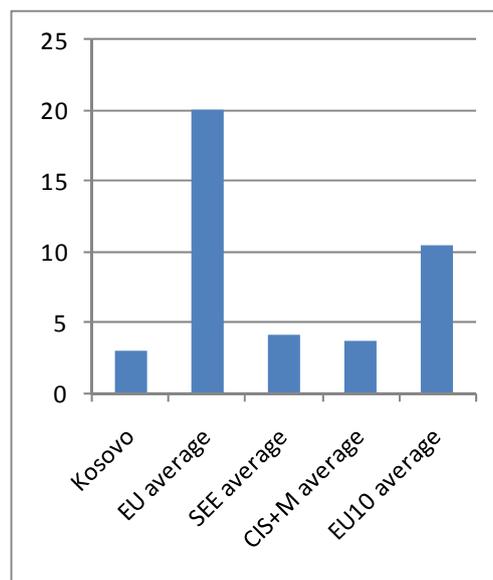
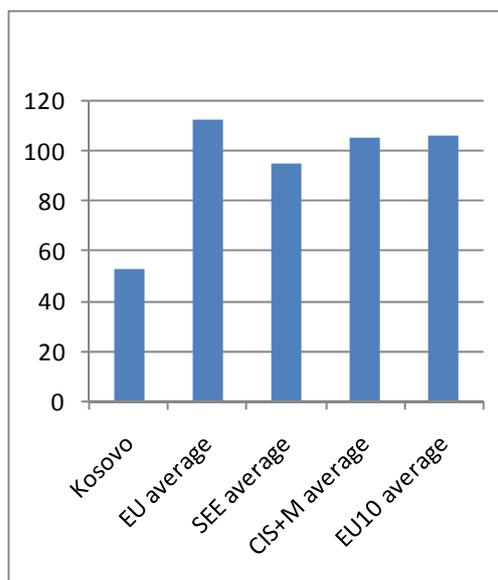
Kosovo is deemed to have "Medium compliance".

### Key indicators for Kosovo



Regulatory spider diagram

Fixed network penetration



Mobile network penetration

Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

## 9. Turkey

Turkey has applied for EBRD country of operation status and has been included in the assessment as a useful comparator. Turkey was assessed during the current parallel project: “Supply of Services in Monitoring Regulatory and Market Developments for Electronic Communications and Information Society Services in Enlargement Countries”. This is a European Commission project with the first monitoring report due in the 3<sup>rd</sup> quarter 2008.

a) Institutional framework

The Ministry of Transport defines the state policies and strategies for the telecommunications sector. The Ministry is also responsible for implementation of the universal service and plays a key role in establishing the authorisation regime for the telecommunications services and/or infrastructure subject to concession agreements. Under the Turkish authorisation framework, the NRA prepares and submits to the Ministry proposed schemes on authorisation covering description and scope of the service, possible timing of the tender procedure and the number of concessions to be issued. The Ministry then presents such schemes for an approval by the Council of Ministers, and then the tender procedures are executed by the NRA.

The Telecommunications Authority is an administratively and financially independent national regulatory authority in the telecommunications sector.

The decision making body of the Authority is the Telecommunications Board that consists of seven members, including a Chairman and a Vice Chairman. The Chairman is also responsible for the general management and representation of the Authority. Board members are appointed for a period of five years by the Council of Ministers. Two of them are nominated by operators having at least 10% market share, one member – by the Ministry of Industry and Trade and the Union of Chambers and Industry, and three members – by the Ministry of Transport. Appointments require approval by the President of the Republic. The Board members can only be dismissed before expiration of a term by the Council of Ministers for inability to work because of serious illness, professional misconduct or criminal offences.

The Authority has independent sources of finance, including frequency fees, pre-determined contributions from operators, any fines it levies on operators and revenues obtained through consultancy and training. Any surplus that may occur at the end of the year is transferred into the State Treasury. The accounts of the Authority are audited by the Supreme Audit Council of the Prime Ministry, the Ministry of Finance, and the Council of Inspectors of the Prime Minister.

The Authority's responsibilities cover issuing of authorisations in the field of telecommunications networks and services, regulation, inspection and arbitration. The Authority has three main types of legal instruments at its disposal to execute its regulatory intervention. Ordinances (or Regulations) come immediately below laws in terms of legal hierarchy. Communiqués are at the second level and are often issued on the legal basis of Ordinances. At the lowest level, there are the decisions of the Board.

Secondary legislation and Board decisions can be appealed at district administrative courts or the Council of State, the highest administrative court in Turkey. There has been an intention to make the Council of State the sole appeal body for the decisions of the Authority, but this has not been accomplished yet.

b) Regulatory independence

The Government retains a 30% ownership in the incumbent operator Türk Telekom controlled by the Treasury. The Government also remains an important shareholder in several other operators. Furthermore, one golden share in Türk Telekom is controlled by the Ministry of Transport that also exercises regulatory functions in the telecommunications sector. Therefore, the separation of the regulatory from the ownership and control functions has not been achieved.

The framework for privatisation of Türk Telekom was established in 2001 stipulating that one golden share would be retained by the government. On July 1, 2005, a 55% share in Türk Telekom was auctioned to a consortium led by Oger Telecom. On December 10, 2007 the Cabinet of Ministers decided to privatise an additional 15% of Türk Telekom shares through an IPO. Since May 15, 2008 Türk Telekom has been trading at the Istanbul Stock Exchange.

c) Market access and authorisations

The provision of domestic long distance and international telecommunications networks and services was liberalised from January 1, 2004, and the liberalisation of local services was formally introduced in July 2005. In practice, the licensing framework for local services was only adopted in August 2007. So far, no licences for the provision of local telephone services have been issued and Türk Telekom remains the only provider.

Depending on the scope of telecommunications activities, the Turkish authorisation regime provides four different types of individual authorisations issued by the Authority:

- authorisation agreement: issued to state-controlled operators, where the state ownership is more than 50%;
- concession agreement: issued following a tender procedure to a limited number of companies providing telecommunications services or operating telecommunications networks on a national level;
- Type 1 licence: issued following a tender procedure to a limited number of companies providing telecommunications services or networks at local level;
- Type 2 licence: issued to companies providing telecommunications services or networks, where the number of providers is unlimited. This category includes long distance telephony services (A, B and C-type), cable TV, satellite, public phones, intelligent networks and value added services.

Individual licences under each of the four types of authorisations are limited to narrowly defined services or activities that are set out in 14 annexes to the Ordinance on Authorisations. Each annex sets out specific authorisation conditions for a specific service.

One-off licence fees for long distance telephony services under Type 2 licence are the following: A-type (CPS services) – TRY 571,446 (€286 K), B-type (CS services) – TRY 253,976 (€127 K), C-type (services provided through a 10-digit number assigned by the TA) – TRY 126,988 (€64 K). The annual fee is set as 0.5% of annual net sales or one off licence fee/15, whichever is larger.

A general authorisation regime with notification to the Authority applies only to ISPs and operators providing SMS services over mobile networks. The one-off fee for this type of services is set at TRY 2,730 (€1,365).

d) Significant market power

Although the EU 2003 regulatory framework has not been formally implemented into Turkish law, the Authority decided in its 2005 work plan to adopt the definition of the 18 relevant markets according to the European Commission recommendation on relevant markets of 2003 and conduct market analyses as foreseen under the EU framework. Market definitions and SMP concept in line with the EU 2003 framework are set out in the document on relevant markets and SMP published by the Authority in March 2005.

- In December 2005, the Authority completed analysis of the wholesale markets for mobile access and call origination and for voice call termination on individual mobile networks, corresponding to markets 15 and 16, respectively. All three MNOs, Turkcell, Telsim, and TT-TIM were designated as having SMP in the mobile call termination market, and Turkcell – also as having SMP in the mobile access and call origination market.
- In March 2006, the Authority completed analysis of the relevant fixed markets, wholesale and retail, corresponding to markets 1-14, and designated Turk Telekom as having SMP in these markets.

The Authority has some discretion in imposing regulatory obligations, but certain remedies are predefined by law. The Ordinance on Access and Interconnection adopted in 2007 specifies that once an interconnection obligation has been imposed on an operator with SMP, non-discrimination, transparency and cost-orientation obligations are triggered automatically.

e) Competitive safeguards

The following competitive safeguards have been implemented in Turkey;

- CS/CPS in fixed network has been available since the second half of 2006 for long-distance and international calls, as well as for call to mobile numbers; it is however not available for local calls and for calls to mobile numbers;
- RIOs published by fixed and mobile operators with SMP;

- RUO available since November 2006 and regulated reference offer for wholesale bitstream access – since August 2007;
- number portability, following the implementation of the centralised reference database in May 2008, must be implemented by November 2008 for mobile networks and by May 2009 for fixed networks.

f) Universal service and consumer issues

Under the Universal Service Law No. 5369 of June 16, 2005, the scope of universal service covers fixed telephone services, public payphones, printed or electronic directory services, emergency call services, basic Internet services and passenger transport services to places that can be reached only through sea transport and maritime emergency and security communications services. This list was extended by the Council of Ministers to include two further elements: 1) services oriented to spread information technologies, including computer literacy, to help the development of the information society (February 2006), and 2) services for the provision of the digital broadcasting by the use of various broadcast media and technology via digital terrestrial transmitters to cover all settlements countrywide (April 2006).

The Universal Service Law envisages a tender procedure for the designation of universal service providers that has not been implemented so far. In June 2006, the Ministry of Transport issued the Ordinance on Principles and Procedures for the Collection of Universal Service Revenues and Execution of Expenditures that also clarifies the USO provider designation mechanism. First, the Ministry determines the relevant elements of the universal services and the specific locations where these services are to be provided. Then the providers of the universal services are designated based on a tender procedure. In rural regions, where the cost of the service provision is high, the Ministry is also authorised to impose temporary USO obligations on providers that have more than 70% market share in a given geographic market.

As universal service legislation has not been applied in practice, universal service is still provided by Türk Telekom in line with requirements set out in its concession agreement. At the same time, contributions to the universal service fund are collected from several sources:

- 2% of the authorisation fees collected by the Telecommunications Authority;
- 1% of net sales revenues of all operators except for GSM operators;
- 10% of payments by GSM operators to the Treasury;
- 20% of administrative fines collected by the Telecommunications Authority;
- 20% of what remains in the budget of the Telecommunications Authority budget after all expenditures are deducted.

These percentages can be increased by up to 20% by the Council of Ministers. These revenues are collected in the public budget and allocated to the budget of the Ministry of Transport, although no payments have been made so far.

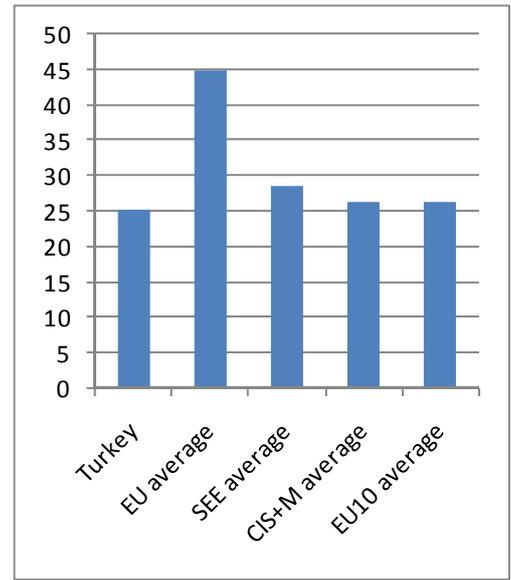
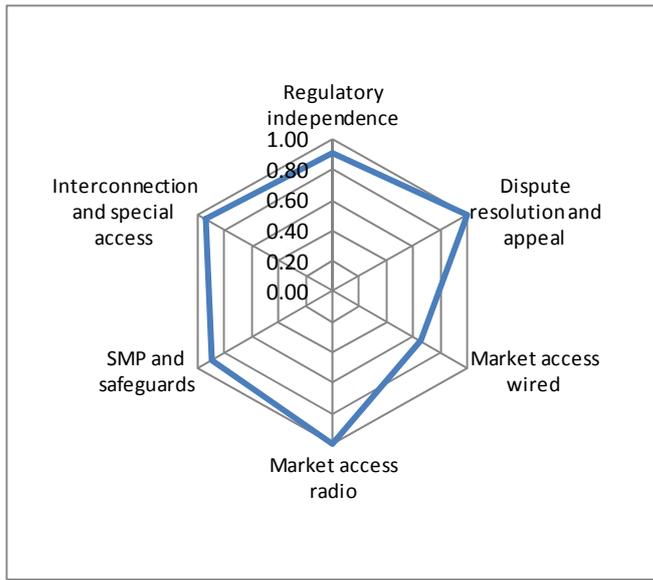
g) Outlook

One of the key outstanding issues has been the adoption of the new electronic communications law, pending since October 2005, which would ensure a sound legal basis for application of the principles of the EU 2003 regulatory framework. Other aspects include the authorisation regime, including the authorisation of alternative local telephone networks and services and addressing the problem of high communications taxes imposed on operators which are detrimental to market entry, the implementation of universal service in compliance with the EU framework and the effective independence of regulatory body from the Government (which remains an important shareholder in several operators).

h) Assessment

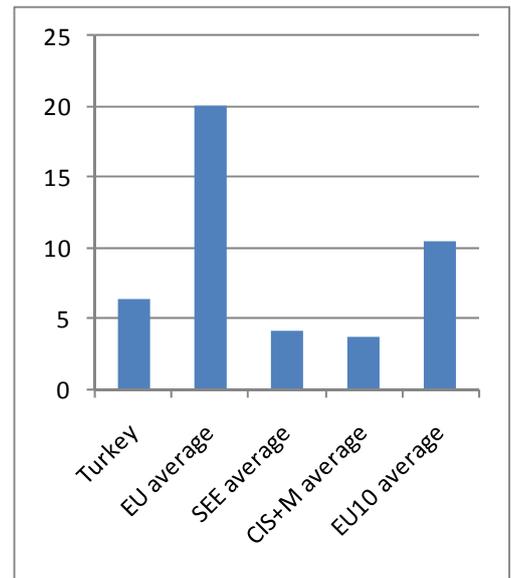
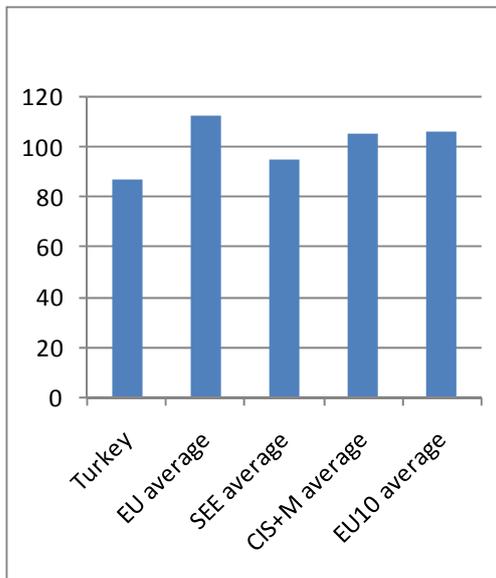
Turkey is deemed to have “High compliance”.

Key indicators for Turkey



Regulatory spider diagram

Fixed network penetration



Mobile network penetration

Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

C. EU Member States

1. EBRD countries of operation in the European Union

This section includes summaries of the status of the telecommunications sectors in the countries within the European Union that are EBRD countries of operation (Bulgaria, Czech Republic, Hungary, Estonia, Latvia, Lithuania, Poland, Romania, Slovak Republic, and Slovenia). This information is drawn from the country sections in Volume 1 of the Commission Staff Document that accompanies the Progress Report on the Single European Electronic Communications

Market 2007 (13<sup>th</sup> Report.), commonly known as the 13<sup>th</sup> Implementation Report<sup>20</sup>. This report does not provide statistics for the number of main telephone lines per 100 population. This indicator has instead been taken from ITU's report on basic indicators for 2007<sup>21</sup>.

Most of the text in this section is directly copied from this report. The reader is referred to the source document for the full text.

In addition to basic market data, the text has been selected in order to provide an insight into the regulatory regime, in particular highlighting areas where the Commission has had issues or concerns that relate to indicators of the assessment model. In some cases, these have resulted in infringement proceedings. Such concerns expressed in the Implementation Report have been taken into account in the regulatory assessment when relating to the assessment model.

In the absence of issues or concerns expressed by the European Commission, it is assumed that a country is fully compliant with the EU regulatory framework and therefore meets all requirements of the assessment model.

In particular, all EU Member States have implemented the General Authorisation procedure for activities that do not require scarce resources. This aspect does not need further comments in the individual country reports.

## 2. Bulgaria

Bulgaria became a Member State of the European Union on January 1, 2007.

### a) Market developments

Total electronic communications revenues in Bulgaria at the end of 2006 were estimated at around €1,548 million, of which the mobile sector accounted for €918 million and the fixed sector for €399 million. Total value of investments reached €417 million, of which €255 million came from mobile operators, €105 million from the fixed incumbent and a mere €8 million from fixed alternative operators.

The most dynamic market in Bulgaria is the mobile market. The situation is similar to other new Member States, where the number of fixed lines is relatively low and there is high growth in the mobile sector.

Although the two main mobile operators have mobile and fixed networks, bringing bundled offers to the market has proved difficult because of problems in concluding interconnection agreements (caused by high termination rates). The broadband market still needs to develop. There were 40 cable operators offering double play offers (cable TV coupled with Internet access or with voice services) and three offering triple play offers (voice, data and television) as at December 2006.

### b) Regulations

Until May 2007, Bulgaria had a law in place transposing the 1998 regulatory framework.

While the Bulgarian authorities notified the May 2007 Law as fully transposing the 2002 regulatory framework, some secondary legislation is still needed to ensure implementation of important measures such as market analyses and access and interconnection

### **Regulatory independence**

On September 30, 2005 (by Decree 205), the Ministry of Transport and Communication changed name to the Ministry of Transport and all its functions related to IT and telecommunications were transferred to the State Agency for Information Technologies and Communications (SAITC). Such state agencies in Bulgaria are established by the Council of Ministers (CoM) in order to provide activities that are normally not carried out by a Ministry. They are governed directly by the CoM. The Chairman of the Agency has to report annually to the CoM on its activities. The Chairman of SAITC is not a member of the CoM, but is invited to their meetings whenever its agenda is related to SAITC activities.

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[http://ec.europa.eu/information\\_society/policy/ecommlibrary/communications\\_reports/annualreports/13th/index\\_en.htm](http://ec.europa.eu/information_society/policy/ecommlibrary/communications_reports/annualreports/13th/index_en.htm)

<sup>21</sup> <http://www.itu.int/ITU-D/ICTEYE/Reports.aspx>

The Communications Regulation Commission (CRC) is the regulatory authority created in compliance with the Telecommunications Law. It is an independent State body with five Commissioners appointed for terms of five years. The Chairman of the CRC is appointed by the Prime Minister, three other Commissioners are appointed by the Parliament and one by the President. There are several serious issues about the Bulgarian NRA's effectiveness and independence which led the Commission to launch infringement proceedings in November 2007. Some steps to address these concerns have been taken in Bulgaria. The regulatory functions are divided between NRA – the CRC – and the State Agency for Information Technology and Communications. The division is unclear, as it seems that the State Agency, responsible for electronic communications policy and for adoption of secondary legislative acts under the Law on Electronic Communications, has some regulatory powers or at least some supervision over these. Furthermore, the State Agency's Chairperson was a member of the incumbent's board, which raised questions of incompatibility with Community law principles, as the regulatory framework clearly provides that the regulator has to be legally and functionally independent of all organisations providing services in the market. Moreover, the State keeps a "preferential share" in the incumbent, which was privatised in 2006, and has veto rights on some decisions.

In addition, there seems to be a significant problem related to the lack of CRC resources, both financial and human, that prevents the CRC from fulfilling its tasks effectively.

Administrative charges and fees collected by the CRC are deposited with the State budget. As a part of the State budget, the CRC budget is approved by the National Assembly, on proposal of the Council of Ministers. The CRC's expected revenues and expenditure for the following year have to be approved beforehand by the Minister of Finance. It seems that, even though the Minister increased the CRC's general budget for 2008, there has been a reduction in the CRC's financial resources for its staff, at a time when more resources appear necessary to ensure implementation of the Bulgarian electronic communications law, especially in terms of carrying out the market analyses and putting in place effective monitoring mechanisms. It seems that some proposals aimed at strengthening its financial and regulatory independence have been made by the CRC.

According to operators, the maximum level of penalties that can be imposed by CRC is relatively ineffective. As fines are not linked to the undertaking's turnover, they would appear to be insufficient to incentivise the operator to comply with regulatory obligations.

### **Market regulations**

No market analyses have been notified yet. Before carrying out market reviews, the Bulgarian Law requires a methodology on rules and procedures for the analysis of markets to be prepared by the CRC and adopted by Decree of the Council of Ministers.

Approval of this methodology was still pending at the end of 2007 and, according to the Bulgarian authorities, was expected by the beginning of 2008.

By way of derogation from Article 30(1) of Directive 2002/22/EC Bulgaria has been given, in its accession conditions, the possibility of postponing the introduction of number portability to no later than 1 January 2009. Mobile number portability has therefore not yet been introduced, despite the Bulgarian Law having set a 1 January 2007 deadline for its introduction. The CRC adopted the necessary secondary legislation for the implementation of mobile number portability in December 2007. Mobile number portability became operational in April 2008.

The main problem concerns mobile termination rates, which are among the highest in the EU. Mobile termination is not regulated but subject to commercial negotiation between operators. Average fixed-to-mobile termination rates were extremely high (18.80 Eurocents) compared to the EU27 average (9.87 Eurocents) in October 2007, and also compared to the mobile-to-mobile termination rates (12.8 Eurocents). According to alternative operators, they have not changed since 2004. The absence of *ex-ante* regulation, as a result of the delay in the market analyses, together with the lack of regulation under the old Law on electronic communications, are the main reasons for the high prices.

Number portability is not available either for mobile or for fixed numbers. The conditions of accession of Bulgaria to the EU, as set out in the Accession Treaty, allowed Bulgaria to postpone the introduction of number portability until 1 January 2009 at the latest. Although the Bulgarian

Law stipulates that mobile number portability should be available as from 1 January 2007, this was still not the case when this report was being drafted.

c) Universal service and consumer issues

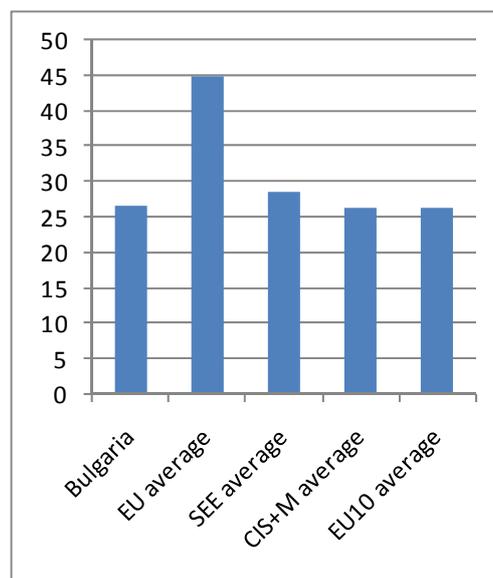
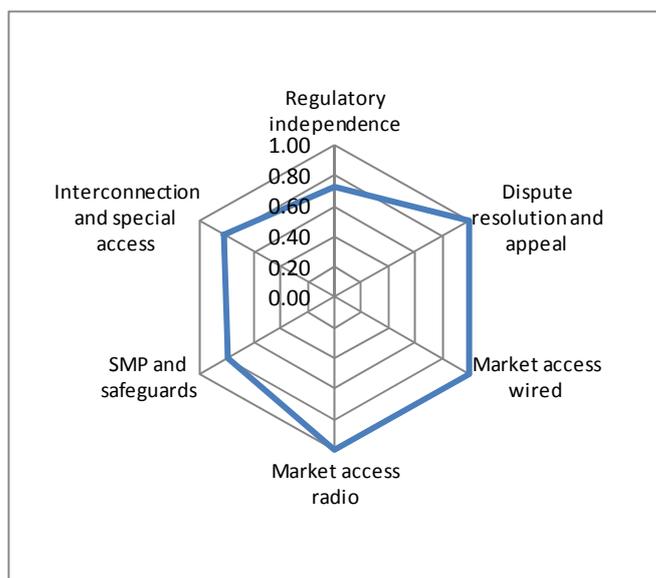
The incumbent operator was designated as the universal service provider under the old Law. This operator is allowed to cover some remote zones through DECT wireless technology. In addition, at the end of 2007, the designated operator was granted a CDMA licence, which could also be used for provision of universal service in barely accessible and remote regions.

The Bulgarian Law provides for a compensation fund, which may be used, if appropriate, by the universal service provider. Nevertheless, the precondition set by the Law is that the retail revenues of the universal service provider should be less than 80% of the total revenues of public telephone services, and the incumbent currently has 97% of the total telephony revenues on the retail fixed market.

d) Assessment

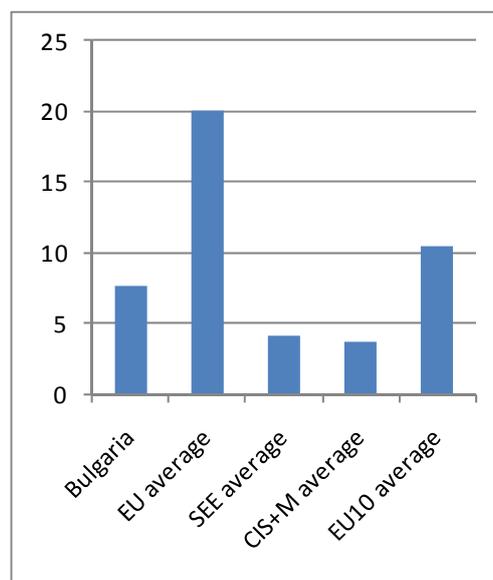
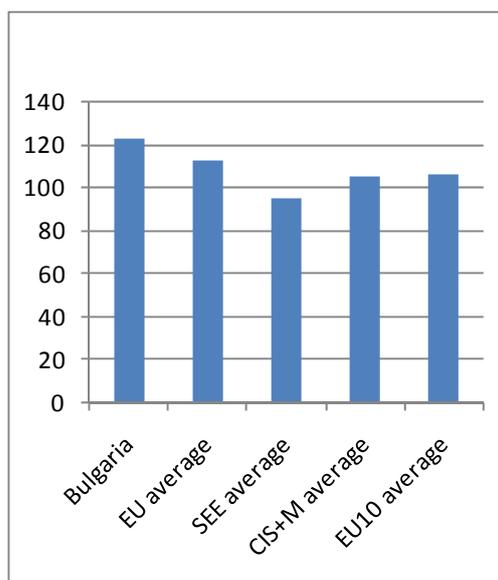
Bulgaria is deemed to have "High compliance".

### Key indicators for Bulgaria



Regulatory spider diagram

Fixed network penetration



Mobile network penetration

Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

### 3. Czech Republic

#### a) Market developments

The total turnover of the telecommunications sector was €4.4 billion for the year ending 31 December 2006. The revenue from the fixed market was €1.7 billion, whereas the revenue from the mobile market reached €2.5 billion. The total value of tangible investments was €451.2

million, of which €233.4 million came from mobile operators, €118 million from fixed alternative operators, and €100.2 million from the incumbent operator.

The broadband market is characterised by intense platform competition. The incumbent's overall position in this market is 33.9% of total fixed broadband retail lines. However, the incumbent holds a strong position on the DSL market. Other main platforms of broadband competition are still WLL and cable.

Following a consolidation of the fixed market in 2006, the number of effective competitors on this market has fallen to four. The fixed incumbent provides fixed and mobile services. The market share of the alternative fixed operators by retail revenue has increased slightly to 35.6%. The number of fixed lines continues to decline. VOIP services are starting to gain in importance. The incumbent is following the trend of converging voice and data services, and has introduced an offer bundling its fixed, mobile and ADSL service (Duo Mobil) which other alternative operators find difficult to replicate. The incumbent also offers a selection of programmes on an IP TV basis. IP TV is also offered by one of the alternative providers.

## b) Regulations

The Ministry of Informatics was dissolved in June 2007. The electronic communications and postal services remits were transferred to the Ministry of Industry and Trade, while topics related to e-Government services were assumed by the Ministry of Interior. The Ministry of Informatics, and then the Ministry of Industry and Trade, continued to work towards a better transposition of the EU regulatory framework.

### **Regulatory independence**

ČTÚ, the NRA, continues to perform its tasks independently, with sufficient regulatory powers granted by the legislation.

There have been no improvements to the mechanism for appealing against the decisions made by ČTÚ. An administrative appeal in certain cases] so, therefore automatically suspends the decision's effects. The Commission is examining concerns that such a procedure may not be in line with the EU regulatory framework.

### **Market regulations**

The Czech regulator ČTÚ completed its analysis of all markets as defined in the Recommendation in 2006. ČTÚ initiated the second round of market reviews in 2007.

The Commission had not received any notification about the second round by the end of the reporting period. The additional decisions on remedial measures taken in 2007 added detail to the remedies already imposed on particular markets.

One retail market (fixed retail non-residential international call market) and four wholesale markets (fixed transit services, trunk segments of leased lines, mobile access, and international roaming) were assessed to be effectively competitive. Based on the comments from the Commission, ČTÚ imposed price regulation on the fixed origination market, and cost orientation, transparency and non-discrimination on the broadcasting transmission services market at the end of 2006. The full set of remedies including price regulation therefore applies to the wholesale fixed and mobile call termination markets, fixed wholesale call origination market, local loop unbundling market, wholesale termination segments of leased lines market and broadcasting transmission services market. The new remedies imposed in 2007 on the fixed and mobile termination markets fine-tune the remedies already set in place in 2006.

However, in the wholesale broadband access market, despite the comments made by the Commission, the remedies do not cover ATM and/or DSLAM access and price regulation. Naked DSL service is not present on the Czech market. Active monitoring and follow-up by the NRA is therefore necessary to find out whether the scope of remedies is enough to address the topic of competition.

Fixed number portability has been available since 2003, and mobile portability was introduced in January 2006. The number portability facility has so far been used more frequently by subscribers in the fixed market (more than three million fixed numbers ported and more than 90,000 mobile numbers ported by October 2007). The alternative operators offer their services

mostly via CS and CPS. These appear to be most successful in the business segment of the market, specifically for international calls, where their market share by retail revenue is 60%.

c) Universal service and consumer issues

Provision of access at a fixed location was taken out of the scope of universal service. An amendment to the Electronic Communications Law taking effect on 1 January 2008 further reduces the scope to exclude provision of special prices for low income recipients.

In the most recent designations (2005-2006) ČTÚ has set the scope of universal service as the provision of directories, directory enquiry services, public payphones, additional services, disabled users' access to PATS and provision of special prices for disabled users and users with low income. The incumbent was the sole designated provider for all but the last element, for which other mobile operators have been designated alongside the incumbent. All the elements are to be provided for a period of three years with the exception of public payphones, designated for six years.

Universal service financing comes from the state budget and the universal service fund. While the compensation mechanism has been activated, the effective contributions for 2001 onwards have been delayed by court proceedings and appeals by contributors.

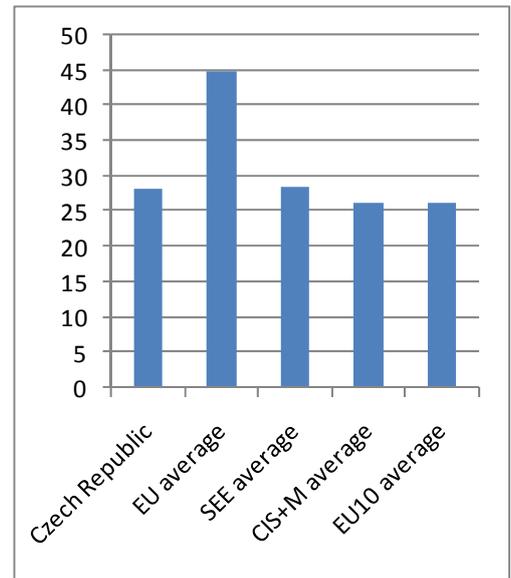
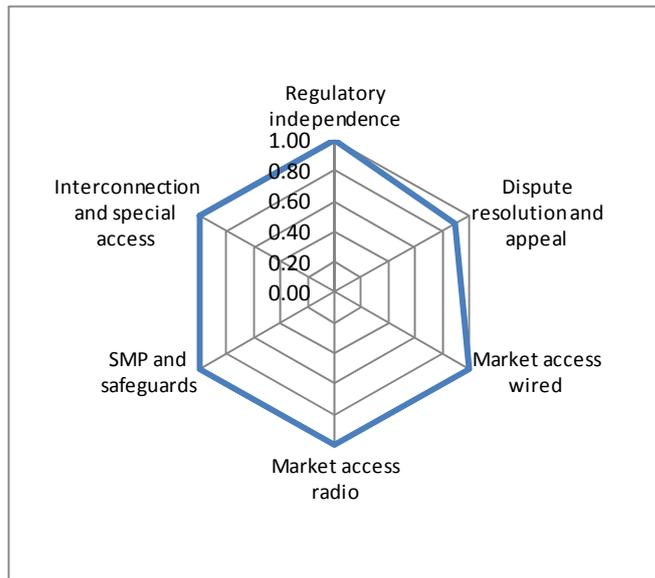
The NRA has indicated the likelihood of issuing the final decisions on the contributions for 2001 in the coming months. The decisions on contributions for 2004 were finalised at the end of 2007. It should be noted that the total net cost of each designated undertaking is to take account of all profits from any of the partial services provided by that undertaking.

d) Assessment

The Czech Republic is deemed to have "Full compliance".

The category of "Full compliance" includes assessment scores between 90 and 100. Therefore it is possible to have "Full compliance" even if a country is marked down on some of the indicators.

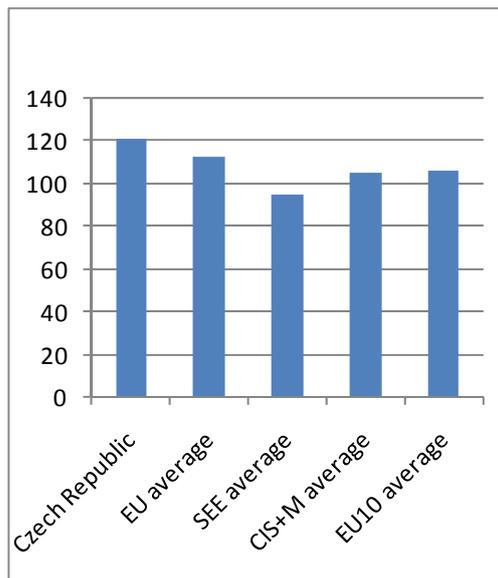
### Key indicators for the Czech Republic



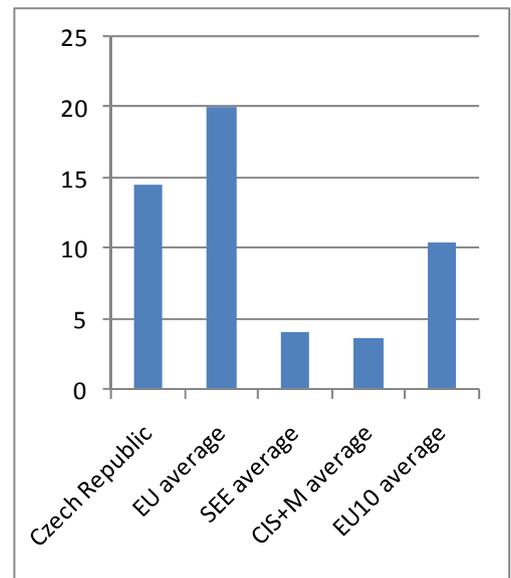
Regulatory spider diagram

Even though the Czech Republic is assessed as having “Full compliance”, it has been marked down in the area of appeal mechanism as explained in the country section above.

Fixed network penetration



Mobile network penetration



Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

#### 4. Estonia

Estonia became a Member State of the European Union on May 1, 2004.

## a) Market developments

The Estonian telecommunications market belongs to a group of relatively developed EU markets. The country has relatively high Internet usage, e-government services, and broadband penetration. There is increasing infrastructure competition in urban areas, via attractive bundles and growing IP TV. Mobile penetration in the country is high. A number of market participants offer GSM and third generation mobile services.

Following the completion and notification of all relevant market analyses, the regulator's attention has shifted towards supervision of the remedies imposed, which should, in turn, provide the market of electronic communication with sufficient incentives for further development. It remains to be seen whether infrastructure competition on legacy networks will develop, given a number of issues in regulated wholesale markets that have not been resolved.

Revenues in the telecommunications sector in 2006 totalled €707 million. Fixed market revenues were €250 million, while the mobile market generated some €360.5 million.

€77.1 million was invested in the Estonian electronic communications sector in 2006 according to the NRA: the fixed incumbent invested some €31.7 million and alternative operators invested €11.3 million; this compares to €33.6 million invested by mobile operators.

The Estonian electronic communications market is characterised by a continuing decrease of fixed voice telephony, and a continuing increase of mobile telephony services and high bandwidth data communication. Consumers continue to benefit from an increasing number of bundled services and retail prices stay at low levels. One fixed voice telephony service provider has joined forces with the largest Estonian mobile virtual network operator (MVNO) and the group of smaller Internet service providers (ISP). The new consolidated company intends to launch quadruple play services in the near future.

## b) Regulations

Taken as a whole, there were some positive changes in the regulatory environment in 2007. ENCB was able to complete and notify all market analyses by the end of summer 2007. On this basis, the Commission was able to close an infringement proceeding for late notifications. Market analysis completion allowed the Commission to close another pending proceeding, about an incomplete reference unbundling offer (RUO) based on a transitional regime.

Promoting competition has proven to be more difficult, given a number of unresolved issues in recently regulated wholesale markets. High termination rates in mobile telephony networks continue to be the most acute problem and have a direct impact on the development of retail service markets. The incumbent's prices for access to ducts continue to impede competitors' activities in the roll-out of fixed voice telephony and broadband infrastructure. The issue, which the NCA has been investigating since 2006 is still unresolved.

**Regulatory independence**

The responsibility for regulation of the Estonian markets of electronic communication is shared by five regulatory authorities, ENCB – the principal national regulatory authority (NRA), the Ministry of Economic Affairs and Communications, the National Competition Authority (NCA), the Consumer Protection Office (CPO) and the Data Protection Inspectorate (DPI). However, cooperation between the various bodies does not raise significant issues.

Compared to 2006, ENCB managed to carry out its regulatory functions in a more efficient manner during 2007 despite limited resources. ENCB has one of the smallest operating budgets in the EU, entirely financed by the Government. The sanctioning powers of the NRA are regulated by administrative law, which sets the maximum penalty threshold at €3,000, which is considered to be low.

A reorganisation of the regulatory authority started in 2007 and was to be completed in January 2008. This included splitting ENCB into two authorities, namely the Estonian Competition Authority (ECA) responsible for, among other topics, sector specific regulation, and the Estonian Technical Surveillance Authority (ETSA) responsible for spectrum, numbering and terminal issues.

## Market regulations

ENCB has completed its first round of market analysis. However, the NRA has, on several occasions, left it to the discretion of the SMP operators to further detail the remedies, such as cost-based pricing and selection of an appropriate cost-accounting model. This creates a lot of uncertainty for the SMP and alternative operators, which is inappropriate for long-term business strategies.

The fact that eight out of 18 markets have been found to be fully competitive sends a positive signal as far as general market competitiveness in telecommunications is concerned.

However, the remaining 10 markets will require close NRA supervision and preparedness for efficient intervention in order to prevent further market distortion.

Recent price regulation on the wholesale unbundled access market has contributed to a reduction in the incumbent's monthly rental fee for full LLU (€6.3, in cases where full spectrum is made available to competitors), compared to 2006 (€8.9). Similarly, the new price of the shared access monthly rental fee is €3.6, down from €4.7, whereas the monthly rental fee for the provision of voice using the lower bandwidth of full LLU is €5.1, down from €7.7 in 2006. Despite significant price decreases, there is little room for competition, given that the monthly PSTN rental fee stands at €5.3 without VAT.

The new reference unbundling offer (RUO) introduces deadlines to be respected by the SMP operator. These refer to technical verification of requests for available capacities and to realisation of connections to the alternative operator. However, the incumbent's customers, according to alternative operators, still seem to have preferential treatment and appear to have connections provided in shorter deadlines.

A recent court decision, which upheld the NRA's proposed symmetrical remedies, has finally reduced mobile termination rates (MTR) to the planned levels. After a year and several months of standstill, caused by an appeal launched by two smaller MNOs, which were granted legal protection, the proposed regulation will eventually reduce one of the highest MTR levels in the EU.

A problem identified in the 12th Report about a dispute between the database manager and the NRA, where some 100,000 requests had not been processed for more than a year, has now been successfully resolved. Statistics reveal that the porting of numbers in Estonia has been rather successful in terms of numbers ported. Some 15,000 fixed telephone numbers and 39,577 mobile telephone numbers were ported in 2007 (October), in addition to 58,578 numbers ported in 2006 and 75,443 numbers ported in 2005.

Fixed telephony competition remains largely service based (CS/CPS), with all but one alternative operator interconnecting on the national level only.

### c) Universal service and consumer issues

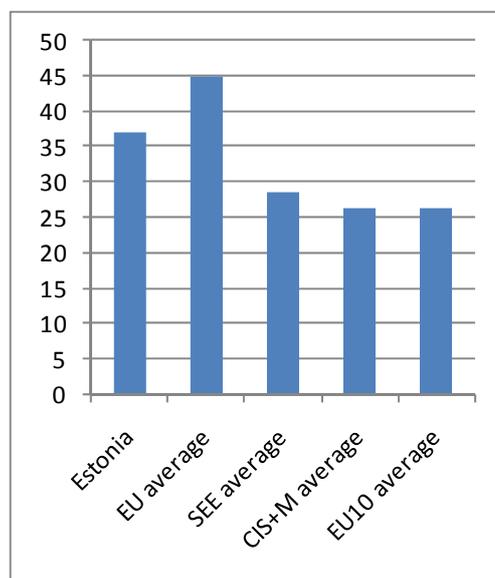
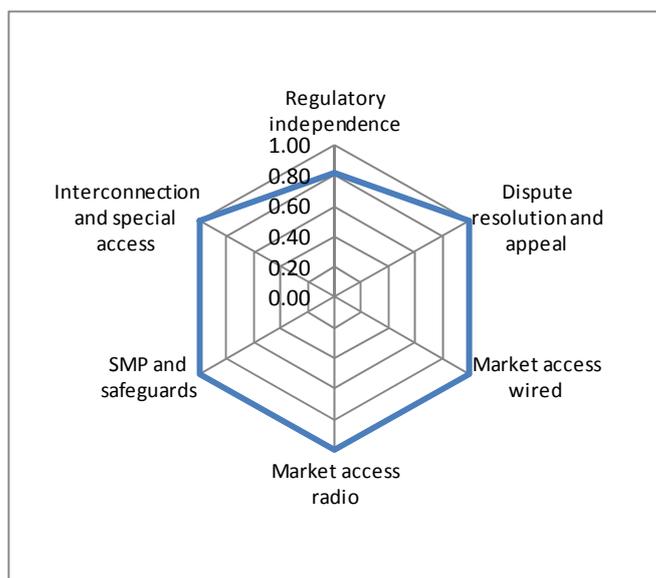
Very few new fixed access lines have been granted to consumers on the basis of the universal service (US) obligation during 2007, largely because of a high degree of fixed-to-mobile substitution. As the affordable price, which is set by the Minister of Economic Affairs and Communications on a recommendation from the NRA, is 1 EKK cent or 0.06 eurocents above the price of the calculated access provision cost of the designated US provider, there was no request for compensation of the financial burden sustained by the provision of this service during 2007.

### d) Assessment

Estonia is deemed to have "Full compliance".

The category of "Full compliance" includes assessment scores between 90 and 100. Therefore, it is possible to have "Full compliance" even if a country is marked down on some of the indicators.

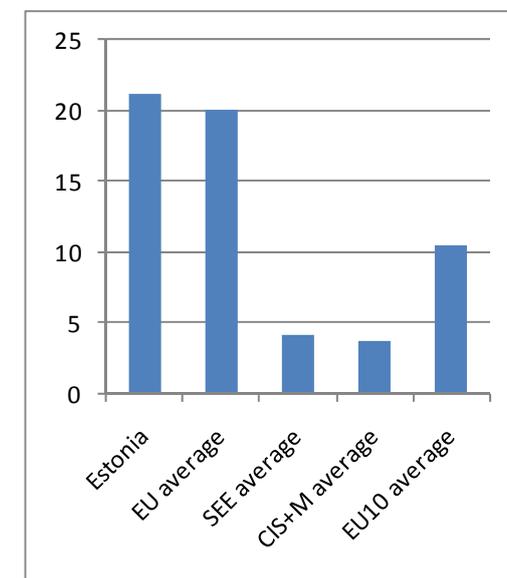
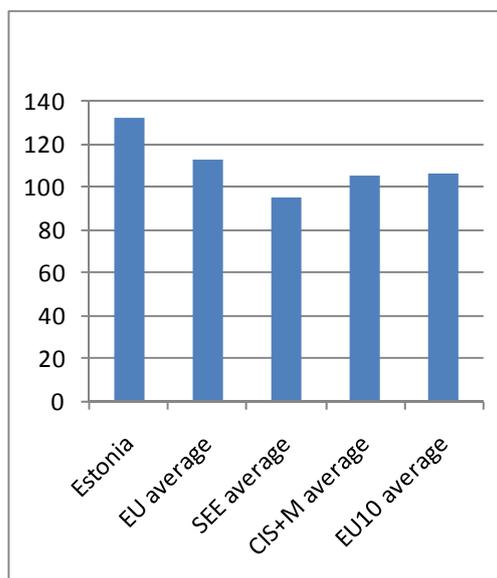
### Key indicators for Estonia



Regulatory spider diagram

Fixed network penetration

Even though Estonia is assessed as having “Full compliance”, it has been marked down in the area of regulatory independence because of a lack of budget control and weak sanction powers as explained in the country section above.



Mobile network penetration

Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

## 5. Hungary

Hungary became a Member State of the European Union on May 1, 2004.

## a) Market developments

In 2007, the Hungarian electronic communications market was characterised by significant market consolidation, take-up of mobile broadband services and an increase in innovative services such as IP TV. Despite high mobile and growing Internet penetration rates, the relatively low level of broadband penetration remains to be addressed.

Although the number of fully unbundled local loops increased significantly in 2007, it is still low compared to other Member States in the European Union.

Investment in the Hungarian telecommunications networks totalled €175.32 million in 2006, of which LTOs, alternative operators and MNOs invested €56.41 million, €34.79 million, and €84.11 million respectively; the Hungarian telecommunications sector generated €3,829.28 million in revenues during the same period.

Market participants take the view that, with the increasing level of consolidation of the Hungarian electronic communications market and the take-up of triple play and mobile broadband services, convergence of services is the main regulatory challenge in Hungary.

Broadband penetration increased to 14.19% in January 2008 (from 9.88% in January 2007), which is still below the EU-27 average, and Internet penetration exceeded 39% by the end of 2007.

Hungary has three mobile network operators – the mobile division of the main incumbent and two Hungarian subsidiaries of foreign operators, with respective market shares in October 2007 of 44.08%, 34.85%, and 21.07%. While the different mobile operators' market shares remained the same (44.8%, 33.8%, and 21.4% respectively in 2006) the number of subscribers increased in 2007. Mobile penetration reached 104.4% (95.4% in 2006), with 10.5 million subscriptions in 2007. The increasing number of post-paid subscriptions (37%) is evidence of increasing consumer trust.

The fixed market went through a consolidation process in 2007. The second largest local telecommunications operator was taken over by the owner of the third largest local telecommunications operator and the leading alternative operator. The fourth local telecommunications operator merged with the main fixed incumbent, which in turn merged with its ISP in October 2007. As a result of these acquisitions and reorganisation efforts, there are three LTOs in the Hungarian fixed electronic communications market: the main and the second incumbents and the LTO belonging to the major cable operator. The consolidation trend also continued with the acquisition of the main CS/CPS operator by the second local telecommunications operator.

## b) Regulations

Most of the regulatory progress is because of the results of the market analysis and amended legislation. The National Communications Authority of Hungary (NCAH) has actively helped to improve the technical and financial conditions for Reference Unbundling Offers (RUO), relatively low wholesale prices and mobile termination rates reaching symmetry in 2009..

**Regulatory independence**

The regulatory tasks are divided between the NCAH and the Ministry of Economy and Transport ("Ministry"). The Hungarian State held a 'golden share' in the main incumbent although all Hungarian electronic communications networks and service providers are private companies. The Ministry exercised ownership rights for that golden share, which raised doubts about its independence as stipulated by the Framework Directive. The Commission launched infringement proceedings against Hungary's golden share regime and the Hungarian Parliament adopted the necessary legal amendment on 16 April 2007, abolishing the special rights of the State.

In general, electronic communications operators are concerned that NCAH decision making during dispute resolutions is slow. Nevertheless, in 2007, the NCAH rendered its decisions in all four dispute resolutions within the time limit set by law (45 days, which can be extended once by up to 15 days).

Decisions of the NCAH appear to be systematically challenged before the appeal courts, although the number of appeals is on the decrease. Pending appeals may seriously reduce legal certainty and predictability in the market, as operators constantly point out that Hungarian courts

are overburdened and final decisions rendered by a second instance court can take 2-3 years in some cases. Some market participants are concerned that the appeal courts often take decisions on the basis of procedural issues rather than on the merits of the case.

### **Market regulations**

In 2007, Hungary's major regulatory task was to start the second round of market analysis and to implement the results of the first round of market analysis.

With the notification of draft measures for the wholesale market for broadcasting transmission services in November 2007, the NCAH finally notified measures resulting from the last market analysis in the first round.

The NCAH found that there was effective competition in the wholesale markets for transit, trunk segments of leased lines and mobile access. All other markets were found to be non-competitive. The NCAH has taken final measures in all of the non-competitive markets notified in the first round, with the exception of the wholesale market for broadcasting transmission services notified to the European Commission in November 2007.

At the same time, the NCAH has already started the second round of market analysis, and has already analysed all the listed markets with the wholesale market for broadcasting transmission services.

In general, the work of the NCAH in 2007 was considered by market participants to have been rather efficient. However, concerns are still voiced about the non-imposition of wholesale line rental (WLR) by the NCAH and non-imposition of the obligation to negotiate access with mobile virtual network operators (MVNO).

Between January 2004 and August 2007, 217,514 fixed numbers were ported in Hungary, while between May 2004 and September 2007, 180,268 mobile numbers were ported, accounting for 1.7% of total mobile subscribers in Hungary.

In September 2007, the NCAH published its decision on the review of retail markets for access to the public telephone network at a fixed location for residential and non-residential customers. The decision maintains CS/CPS obligations on the five SMP operators as well as price regulation. As a new component in the NCAH decision, operators with SMP are not allowed to establish loyalty conditions (including the duration of the subscriptions) that are not proportionate to the advantages obtained by end-users.

#### **c) Universal service and consumer issues**

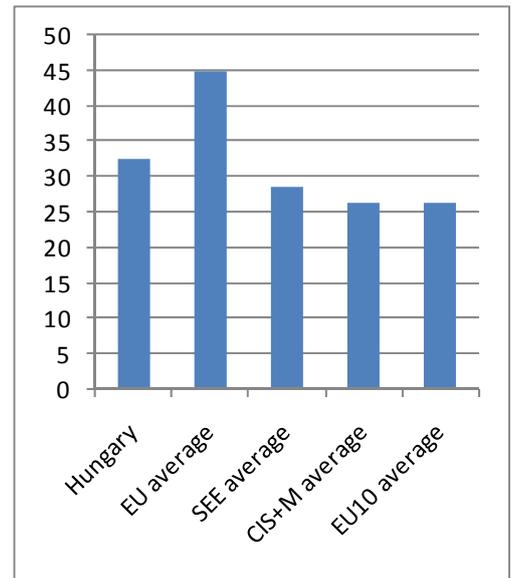
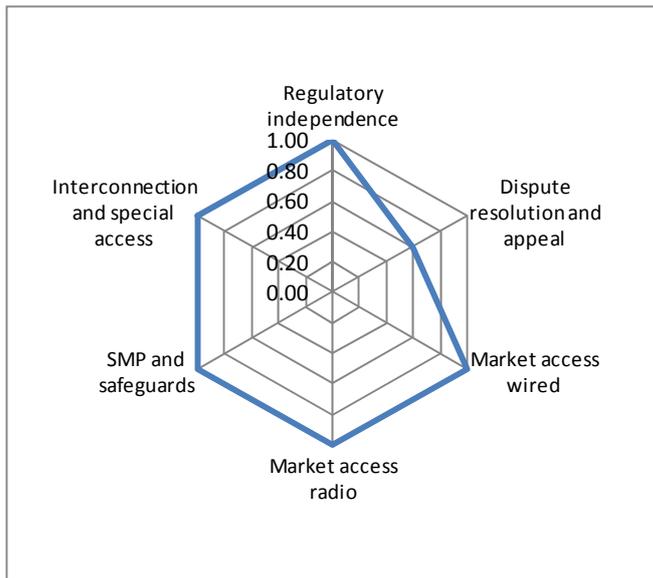
In April 2004, each of the five local telecommunications operators was designated by the Minister of Informatics and Communications as a Universal Service Provider (USP) for 4 years and since then they provide the four components of the universal service in their respective geographical areas. Operators can benefit, in principle, from the Universal Electronic Communications Support Fund. For the years 2004, 2005, and 2006, the USPs' compensation requests were refused as net avoidable costs were not demonstrated.

#### **d) Assessment**

Hungary is deemed to have "Full compliance".

The category of "Full compliance" includes assessment scores between 90 and 100. Therefore, it is possible to have "Full compliance" even if a country is marked down on some of the indicators.

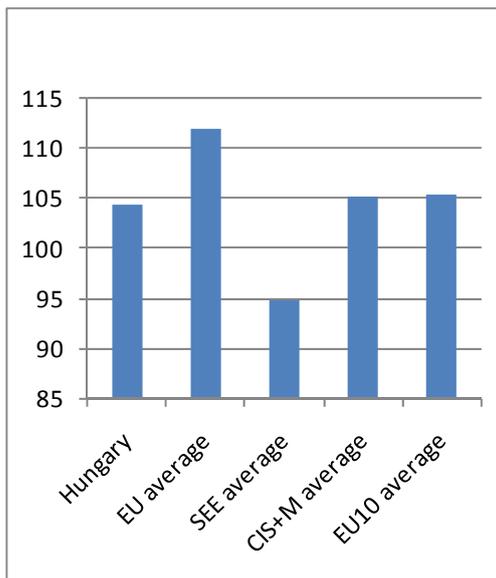
### Key indicators for Hungary



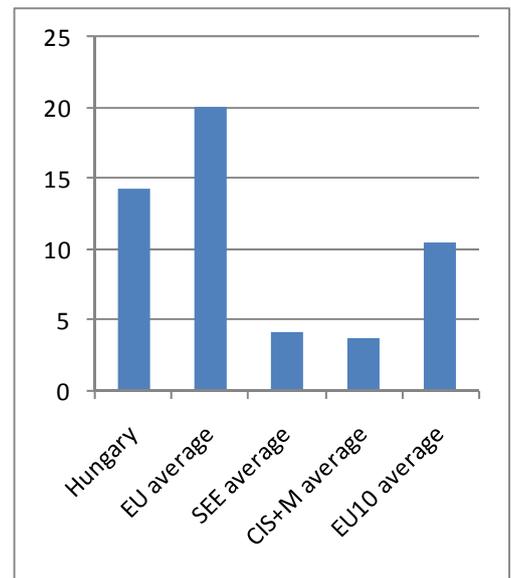
Regulatory spider diagram

Even though Hungary is assessed as having “Full compliance”, it has been marked down in the area of appeal because of lengthy procedures as explained in the country section above.

Fixed network penetration



Mobile network penetration



Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “*Explanation of assessment and results*” in Section II of this report.

### 6. Latvia

Latvia became a Member State of the European Union on May 1, 2004.

## a) Market developments

Competition intensified in the Latvian electronic communications sector, and consumer prices dropped in 2007 despite the general inflation rate, which exceeded 14% at the end of the year. Broadband penetration has risen rapidly and a regional development project was launched to improve access to broadband in rural areas. A notable development, which could lead to significant market and competition changes in the future, was the launch of discussions on the privatisation of the remaining government stakes in the fixed incumbent and in one of the two established mobile network operators.

The total turnover of the Latvian telecommunications sector was about €671 million as at 31 December 2006, revenue from the fixed markets being €123 million, and from the mobile markets €266 million. The total value of tangible investments in telecommunications networks was more than €80 million, including about €43 million invested by the fixed incumbent, €1.4 million invested by alternative operators and €40 million invested by mobile operators.

## b) Regulations

On the regulatory side, measures were taken to complete the introduction of number portability. The Latvian NRA also completed the first round of market analyses and imposed remedies in a number of markets that had been reviewed previously. Other major developments in 2007 concerned universal service, administrative charges and fees, procedures of granting rights of way and caller location for calls to the European emergency number 112.

**Regulatory independence**

The Latvian NRA, the Public Utilities Commission (PUC), is a multi-industry regulator responsible for electronic communications, postal, energy and railway services. The industry representatives generally recognise the independence of the NRA, the competence of its staff and its capacity to exercise regulatory tasks in the field of electronic communications. In 2007, the NRA was expecting a further extension of its status through amendments to the Constitution, which were being prepared and discussed in Latvia with a view to providing for an explicit Constitutional regulation of certain State institutions, including the PUC. One of the consequences of its wider multi-industry responsibilities is that the NRA does not distinguish, in the annual accounts that it publishes, its specific administrative costs for the regulation of the electronic communications market.

A draft law was presented in 2007 to amend the dispute resolution procedures of the NRA. It is intended that the parties to the dispute would no longer be able to appeal against the dispute resolution decision of the NRA to the court, but instead would be given the choice, should they not be happy with the NRA decision, of bringing their case to court for retrial between themselves. The Commission will follow the development of this proposal closely in the light of the regulatory framework requirements.

**Market regulation**

In December 2007, following the completion of the first round of market analysis with the notification of the broadcasting transmission services market in October 2007, the Commission closed the infringement proceeding against Latvia on market analysis.

Following the 2006 market analyses, the NRA imposed remedies on the fixed incumbent on the minimum set of leased lines market and the wholesale unbundled access market, the wholesale broadband access market and the wholesale terminating segments of leased lines market. The remedies communicated to the Commission and imposed on the fixed incumbent on the minimum set of leased lines market were transparency, the obligation to publish a reference offer, price control and cost orientation and accounting obligations. In the other three markets, in addition to the remedies referred to above, the NRA also imposed non-discrimination and accounting separation remedies. In consequence, the fixed incumbent published reference offers in 2007 for wholesale unbundled access to the local loop, wholesale broadband access and terminating segments of leased lines.

The fixed incumbent's wholesale access business is still negligible. The lack of demand for local loop unbundling (LLU) is explained by the fact that it is easier and cheaper for alternative operators to duplicate infrastructure. Some alternative operators were of the opinion that the wholesale price for LLU and leased lines was too high to build a viable business case under the

conditions prevailing in Latvia. While the monthly average total cost for full LLU in Latvia is below the EU average, the cost in the case of shared access is slightly above the EU average. On the other hand, some companies had shown interest and were negotiating the purchase of the fixed incumbent's wholesale broadband access product.

In 2007, following an additional market analysis, the NRA imposed transparency and non-discrimination remedies on the new mobile entrant in the wholesale mobile voice call termination market. A more extensive range of remedies, including price control and cost accounting obligations, were imposed on the two established MNOs earlier in 2006; one of these MNOs has appealed against the decision. In addition, the appeal launched in 2005 by one of the established MNOs against an earlier decision of the NRA, which imposed price caps on termination rates of the fixed incumbent and both MNOs of the time, is also still pending. In June 2007, a district administrative court found the decision of the NRA to be unlawful. An appeal against this decision is now before the second court instance – the regional administrative court. The mobile call termination rates, which are lower than the EU average, have not changed in Latvia over the last year and have remained asymmetric. GSM spectrum refarming is not on the agenda for the moment.

Following the 2006 market analyses, the NRA imposed remedies on the fixed incumbent in the retail access and call markets. The remedies imposed on the fixed incumbent in these markets were carrier selection, CPS, price control, and cost accounting obligation.

In addition to these obligations, the fixed incumbent is also subject to the accounting separation obligation, which is generally imposed by the Law on the Regulators of Public Utilities.

The May 2007 amendments to the Electronic Communications Law clarified the rules on number portability for pre-paid mobile customers, as a result of which the NRA issued new regulations in October on number portability. Accordingly, although with a significant delay compared to post-paid subscribers, number portability was introduced in Latvia for pre-paid customers on February 1, 2008.

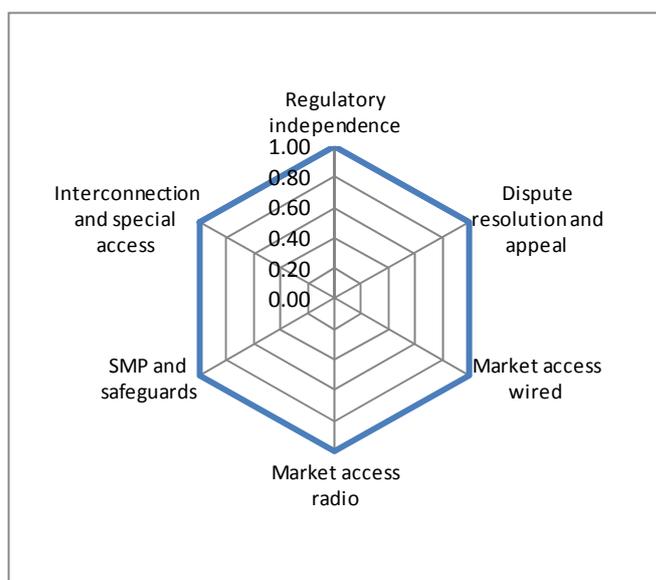
c) Universal service and consumer issues

One of the major issues for the Latvian NRA in 2007 was the universal service. In particular, for the first time it received and confirmed the universal service provider's request for compensation. Preparations were also started to show, find out, set up a specific universal service compensation mechanism.

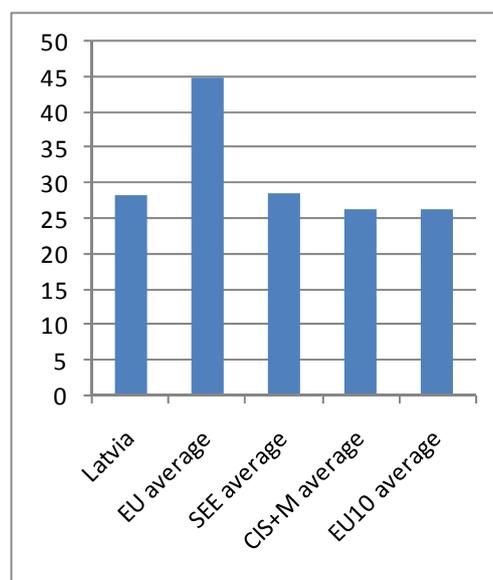
d) Assessment

Latvia is deemed to have "Full compliance".

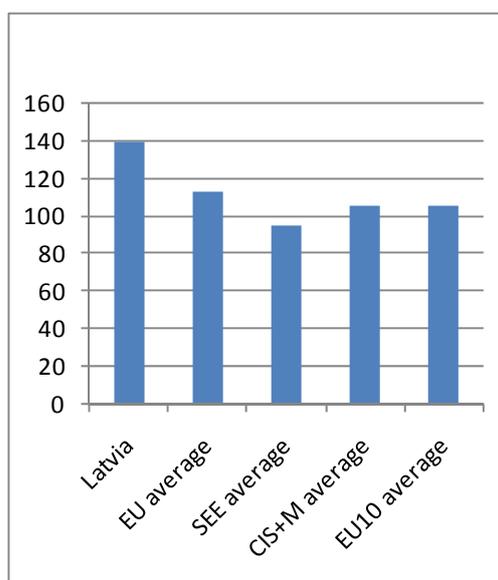
Key indicators for Latvia



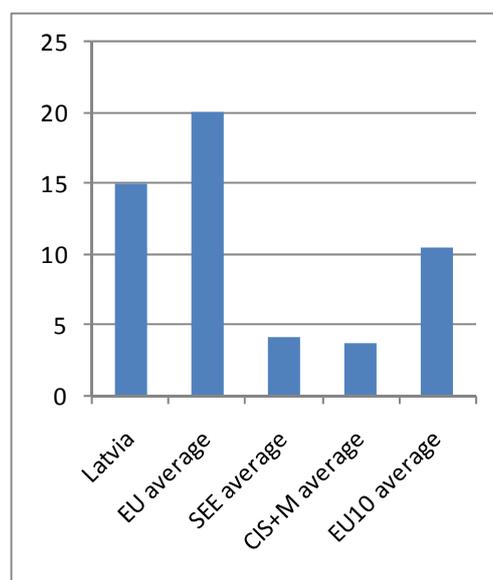
Regulatory spider diagram



Fixed network penetration



Mobile network penetration



Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to "Explanation of assessment and results" in Section II of this report.

## 7. Lithuania

Lithuania became a Member State of the European Union on May 1, 2004.

### a) Market developments

In 2007, the trend towards infrastructure-based competition as opposed to service-based competition became more visible. Mobile broadband is picking up, the incumbent is rolling out a next generation network, and alternative operators' fibre lines already account for roughly 18% of all broadband access lines. Nevertheless, broadband penetration has remained below the EU average. Digital terrestrial TV and IP TV services are already available on the market.

The total turnover of the Lithuanian telecommunications sector was €0.76 billion for the year ending December 31, 2006. Revenue from fixed markets was €0.15 billion and revenue from mobile markets was €0.36 billion. The total value of tangible investment by alternative operators

in fixed telephony networks was €19 million. Mobile operators invested €61 million, while the incumbent fixed network operator invested €21 million.

## b) Regulations

Access to the fixed incumbent's network continues to be problematic and, together with several persisting interconnection problem areas, calls for rigorous implementation of the remedies resulting from the completed first round of market analyses. Other issues included the continuing absence of an effective 112 caller location service and the application of must-carry rules to the emerging mobile TV services.

### **Regulatory independence**

The 12<sup>th</sup> implementation report noted a potential problem arising from the fact that the Ministry of Communications (the Ministry) performed functions associated with the control of operators, namely the analogue broadcasting transmission incumbent, and at the same time was represented in the RRT's<sup>22</sup> advisory body (the Council). It also appeared that the same person represented the Ministry both in the RRT Council and on the operator's board. In 2007, the Ministry appointed different representatives to the RRT Council and the board of the analogue broadcasting transmission incumbent. The Commission services will continue to monitor the extent to which the RRT's independence of all electronic communications operators is effectively ensured.

### **Market regulation**

RRT has completed the first round of market analyses. While three appeal cases (two retail access markets, and the wholesale broadband access market) are still pending in the courts, four judgements have confirmed the RRT's decisions.

All the reference offers and standard access agreements have been published. The incumbent has recently published revised reference offers for bitstream access, leased lines and interconnection. However, reference offers are monitored by RRT on an ex-post basis, and they are published as new versions without highlighting important changes. This leaves scope for tightening regulatory supervision somewhat as well as enhancing transparency for alternative operators, especially small operators who often lack the human resources to keep abreast of regulatory developments. RRT would welcome more formal complaints from alternative operators about cases of the incumbent's non-compliance with the remedies imposed.

Ex-post general competition investigations are carried out by the national competition authority (NCA) based on complaints, which have been few so far. Throughout the investigations, the NCA cooperates with RRT on such issues as market definitions and economic data. The NCA gives an opinion on RRT's ex-ante market analyses. The RRT's radio spectrum and phone number assignment tender commission also includes an NCA representative.

In 2007, the incumbent launched a wholesale bitstream offer adapted to the provision of Internet service to residential customers. Apparently, it has not proved popular with alternative operators so far (only 2,367 wholesale bitstream lines were used by alternative operators in October 2007). Wholesale monthly rental charges for various bitstream products remained among the highest in the EU in 2007.

The first agreement on unbundled local loops (LLU) was signed in September 2006.

LLU has been taken up by two alternative operators so far, accounting for about 382 wholesale local loops. Monthly wholesale rental charges are €7.75 for fully unbundled loops and €5.5 for shared loops, while the corresponding retail prices of the incumbent appear to be €7.8 for business users and €6.66 for residential users. According to the alternative operators, the use of the incumbent's network on a wholesale basis is not economically viable, because of high tariffs (e.g. the LLU connection fee was one of the highest in the EU in October 2007), reluctance to sell (repeated claims that technical capacity was lacking), and additional costs. In March 2007, RRT adopted a formal dispute resolution decision on LLU, ordering the incumbent to apply non-discriminatory technical investigation deadlines, not to charge a technical investigation fee, and to

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<sup>22</sup> RRT (Ryšių reguliavimo tarnyba) is the Communications Regulatory Authority

give access to the network information system free of charge. The incumbent has appealed against the decision.

A cost model (BU-LRAIC) for mobile termination markets is not yet in place, as the results of the tender for developing the model have been referred to the court. In the meantime, transitional measures are in place, under which operators are required not to apply (price) conditions for the provision of voice call termination services that are less favourable than those applied on 30 September 2004. In practice, this implies an average termination rate of €0.10, close to the EU-27 average.

The LRIC cost model for fixed termination on the incumbent's network has been finalised. According to RRT, the use of this cost model should gradually bring the incumbent's fixed wholesale termination rates from the highest in the EU down to the EU average.

Number portability is free of charge to end-users and is delivering tangible results: fully operational since February 2006, mobile number portability allowed roughly 184,700 numbers to be ported in 2007, compared to close to 100,000 in 2006. Fixed number portability only represented about 11,000 ports in 2007. It takes about five days to port a number to another operator.

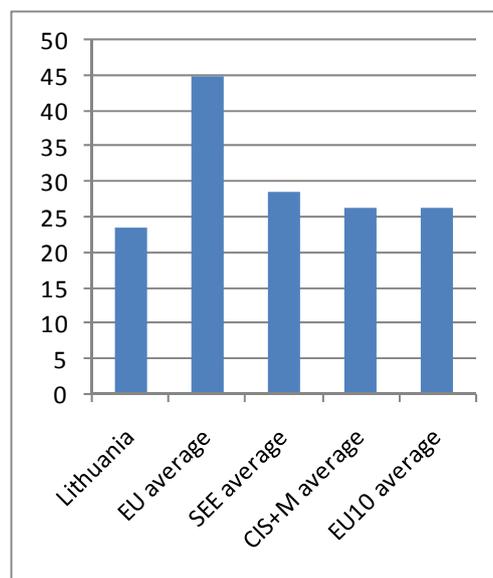
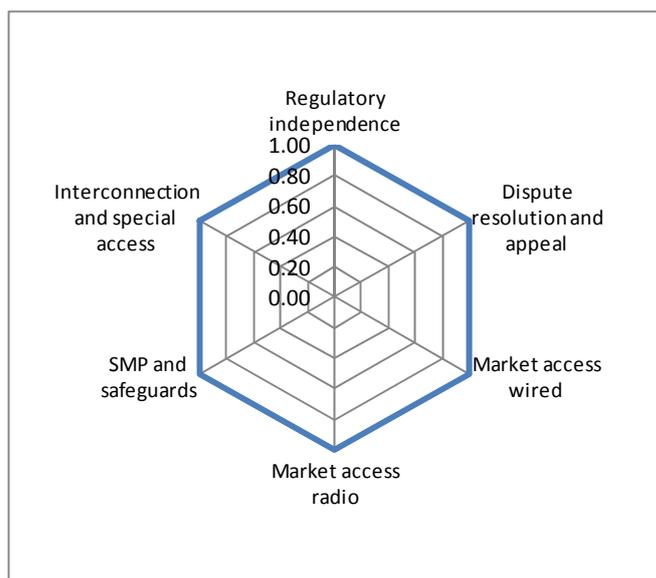
c) Universal service and consumer issues

In October 2007, RRT announced an open call addressed to all public electronic communication service providers inviting expressions of interest for provision of universal service or any of its elements without compensation.

d) Assessment

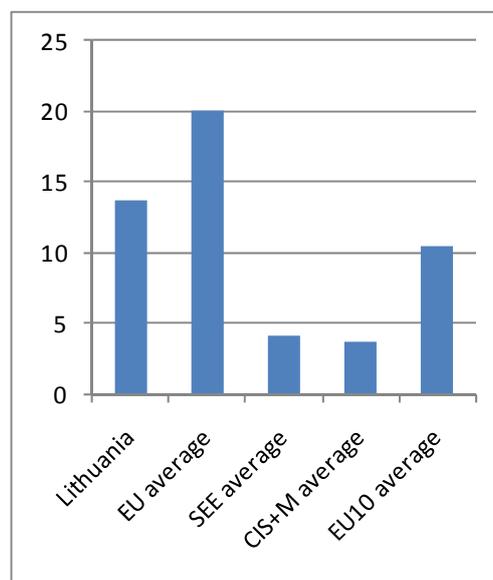
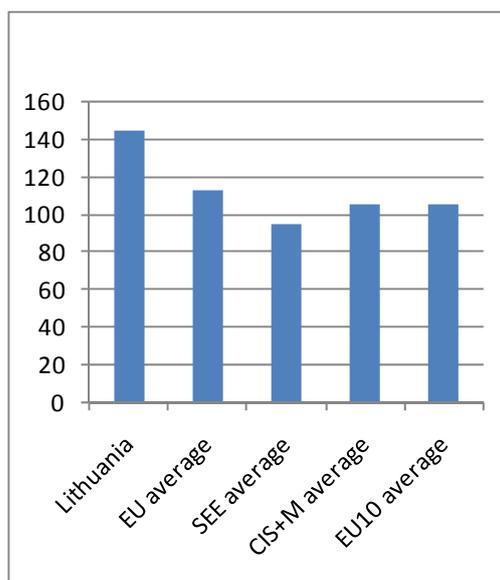
Lithuania is deemed to have "Full compliance".

### Key indicators for Lithuania



Regulatory spider diagram

Fixed network penetration



Mobile network penetration

Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

## 8. Poland

Poland became a Member State of the European Union on May 1, 2004.

### a) Market developments

Revenues in the telecommunication sector in 2006 totalled €10,504 million in the year ending December 31, 2006. Revenue from the fixed markets was €4,768 million, while the mobile market generated some €5,736 million. The total value of tangible investments in the electronic

communications sector was €1,635 million. Mobile operators invested €742 million, which represents almost half of overall investment. Fixed alternative operators invested €398 million, slightly less than the total investment by the incumbent.

Competition has become stronger in the mobile market following the entry of a new network operator as well as a number of MVNOs. The three large mobile operators are trying to attract new customers by offering innovative services, for example the possibility of making small payments by mobile phone. They are also competing in the fixed market, having signed wholesale line rental agreements with the fixed incumbent. All mobile network operators have signed MVNO agreements and more are in the process of being negotiated.

Revenues from the fixed telephony market have continued to fall because of lower prices, the growing popularity of PC-based VoIP services and fixed-to-mobile substitution. At least two fixed line operators are offering IP TV services on a commercial basis. In the reporting period, there was an increase in the number of cable operators offering triple play including voice and broadband access in addition to TV services.

Broadband penetration in Poland remained one of the lowest in the EU in 2007, despite faster growth.

#### b) Regulations

Poland has not yet finalised the first round of market analyses. This has not prevented the regulator actively promoting the goal of lowering prices paid by end-users via other routes, although according to market participants it has caused legal uncertainty. Seven infringement proceedings were pending against Poland, of which one, about retail broadband regulation without prior market analysis, was launched in 2007.

In 2007, Poland was the Member State with the highest number of open infringement proceedings for incorrect transposition and application of the EU regulatory framework.

Seven proceedings are now pending, of which one was opened in 2007. Two cases are now before the Court of Justice.

#### **Regulatory independence**

The Office for Electronic Communications (UKE) is the regulatory agency for electronic communications services. The Regulator's decisions were notable for a "hands-on" approach to the market as exemplified by the frequent recourse to dispute resolution as a regulatory tool and the continued use of transitional measures.

Following the change in government, the Ministry of Infrastructure took over the responsibilities in the field of electronic communications previously held by the Ministry of Transport. The legality of the process of appointment of the President of the UKE continued to be questioned in court throughout 2007, shedding doubt on the validity of her decisions and causing legal uncertainty in the market. At the time of drafting this report, the ruling of the Polish Supreme Court that would finally resolve the issue was awaited.

The President of UKE is charged with most of the responsibilities of the NRA under the regulatory framework, with the notable exception of market definition for the purposes of market analysis, for which the Ministry is responsible, and UKE appears to have most of the necessary powers to fulfil its regulatory functions effectively. However, the Regulator is experiencing difficulties in retaining experienced staff. This has a negative impact on the day-to-day functioning of the authority, which is financed from the State budget.

Legal changes in 2006, which had removed a fixed term of office for the President of UKE and granted the President of the Council of Ministers an unlimited right to dismiss the head of the NRA at any time and without the need to indicate reasons, were not undone in 2007. As indicated in the 12th Report, the Commission is concerned that the changes introduced may influence the impartiality of the NRA and sent a Reasoned Opinion to Poland in June 2007.

The Regulator also seems not to have the necessary specific enforcement powers, in particular the power to encourage, and where appropriate ensure, adequate access and interconnection and interoperability of services irrespective of the market power of the undertakings involved.

More judges and assistants were appointed to the Competition and Consumer Protection Court, responsible *inter alia* for hearing most of the electronic communications cases, raising the total number of judges and assistants to 14. Despite this slight improvement, the length of appeal proceedings appears to be a problem as the Court takes roughly 2.5 years to reach a judgment. The number of appealed decisions is also striking as there are now some 500 proceedings pending against decisions of the Regulator, launched solely by the incumbent.

### **Market regulation**

The NRA almost finalised the first round of market analyses in 2007. The re-notification of the market for wholesale trunk segments of leased lines is expected shortly. According to the UKE, the market for mobile access and call origination will also be re-notified. The second round of notifications is not expected to start in early 2008<sup>23</sup>.

While several decisions taken by the NRA have begun to take effect, such as the imposition of wholesale line rental (WLR), bitstream access, or changes in reference offers, many of its decisions are subject to lengthy appeals. Despite market analysis efforts, decisions have in general continued to be based on transitional provisions (the ONP rules). Certain provisions, such as those for dispute settlement, are interpreted broadly. Some operators have also voiced concerns about the frequent intervention of the NRA in dispute resolution, which is seen by operators as taking away the incentives to negotiate in good faith.

In February 2007, the NRA adopted final measures for the wholesale broadband market. It included bitstream access in the market definition (at the ATM level and to take account of reasonable requests from alternative operators to ensure access at DSLAM and/or IP level). The remedies included an obligation to provide access, including the use of network elements and associated facilities, a non-discrimination and transparency obligation, accounting separation and price control as well as an obligation to present a reference offer.

However, the NRA has continued to regulate bitstream on the basis of the old ONP regime, considering that new measures could only be applied when the SMP operator presents its cost calculation together with the new reference offer and when that offer has been analysed. At the time of drafting this report, the NRA was still in the process of analysing the reference offer for bitstream that was submitted in May 2007. The Commission is concerned about the continued use of transitional measures more than three years after Poland's accession to the EU.

The changes to the reference offer for local loop unbundling, mentioned in last year's report, which significantly lowered the prices for full and shared access and provided for better and more detailed regulation of co-location and co-operation between operators, has led to only five local loops being unbundled when this report was drafted. However, six agreements have been signed, with the UKE intervening in three cases to help resolve issues between operators. The incumbent has blamed the slow take-up of LLU on over-advantageously priced bitstream access, which takes away the incentive to invest. The NRA adopted final measures on the market for wholesale unbundled access to the local loop in June 2007. It was still in the process of analysing the incumbent's new reference offer for local loop unbundling at the time of writing this report.

It is also on the basis of the previous legal framework that the NRA has regulated the prices of the incumbent's retail broadband services, and has fined the incumbent (including a maximum fine amounting to 3% of revenue in February) for lack of transparency and cost orientation of its retail broadband offerings, as well as failing to submit its retail broadband tariffs for prior approval. However, the Commission sees no legal basis for retail broadband regulation without a prior market analysis and has opened an infringement proceeding.

In April 2007, the Regulator issued a decision imposing a glide path for mobile termination rates, having consulted neither the stakeholders nor the Commission. The Commission's services are looking into the matter. The rates were set on the basis of benchmarks of three countries with the lowest rates, which was criticised by operators. The termination rates for the fourth mobile operator are not regulated.

The incumbent has continued to apply the Reference Interconnection Offer (RIO) based on the former Telecommunications Law despite final measures having been adopted in the markets for fixed wholesale call origination and termination in July and September 2006 respectively.

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<sup>23</sup> Poland had not completed the second round of market analysis in October 2008.

By September 2007, the Regulator had issued 14 separate decisions imposing wholesale line rental (at a 47% rebate of the retail price) in the process of dispute resolution between the incumbent and alternative operators. The decisions were based on the transitional measures and a wide interpretation of the ONP regime, and not on the results of the relevant market analysis despite the final measure imposing regulatory remedies on the wholesale market for fixed call origination (including a general obligation to offer wholesale line rental) having been adopted.

Number portability for both fixed and mobile numbers has been available since 2006. While operators are concerned about the lengthy and cumbersome procedure for fixed number portability, which takes between 14 and 30 days, work on simplification is ongoing according to the UKE. Mobile number portability is causing less concern and 35,000 mobile numbers had been ported by December 2006.

c) Universal service and consumer issues

The fixed incumbent that was designated as universal service provider in May 2006 applied for compensation of the net cost of universal service provision for the first time in June 2007.

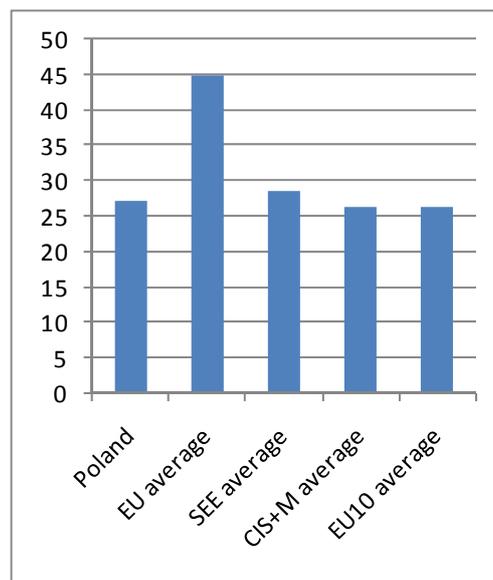
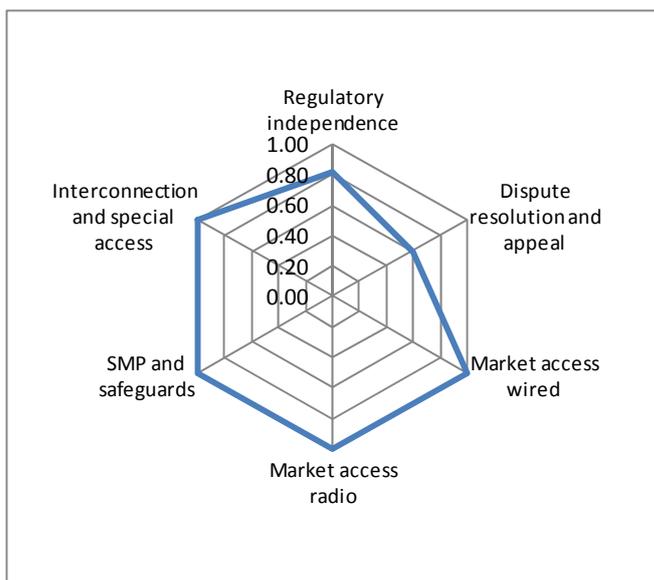
The President of the UKE has apparently refused to provide reimbursement on procedural grounds. The NRA considered that the incumbent had not presented sufficient documentation to prove that such a cost had been incurred. The incumbent was considering appealing the decision.

d) Assessment

Poland is deemed to have "Full compliance".

The category of "Full compliance" includes assessment scores between 90 and 100. Therefore, it is possible to have "Full compliance" even if a country is marked down on some of the indicators.

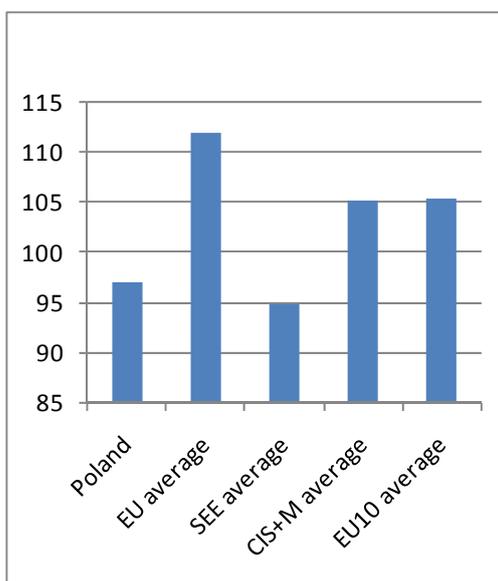
### Key indicators for Poland



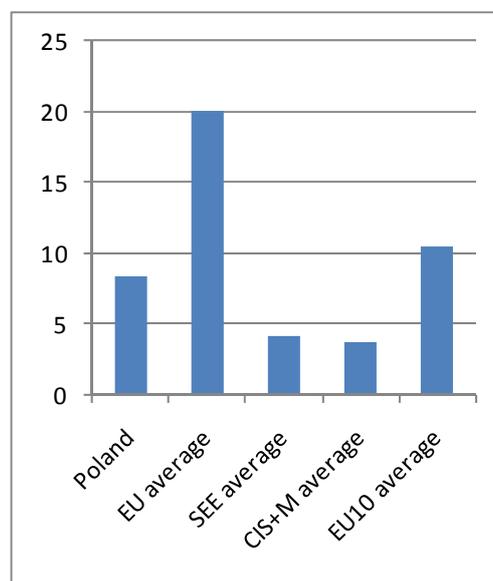
Regulatory spider diagram

Even though Poland is assessed as having “Full compliance”, it has been marked down in the area of regulatory independence because of weak sanction powers and lack of budget control. It is also marked down for lengthy appeal procedures as explained in the country section above.

Fixed network penetration



Mobile network penetration



Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

## 9. Romania

Romania became a Member State of the European Union on January 1, 2007.

## a) Market developments

Romania, with a population of 21.6 million inhabitants, had an electronic communications market with almost 2,000 operators in 2007, including many local cable operators, and an annual turnover of almost €3.8 billion. Romania has the lowest fixed line penetration and one of the lowest broadband penetration rates in the EU27, although mobile penetration is growing rapidly.

## b) Regulations

**Regulatory independence**

Regulatory tasks are performed by the National Regulatory Authority for Communications and Information Technology of Romania (ANRCTI), while the Ministry of Communication and Information Technology (Ministry) is responsible for national policy in the electronic communications sector and prepares legislation for the sector. On April 25, 2007, the ANRCTI also took on the specific tasks of the General Inspectorate for Communications and Information Technology (IGCTI) for spectrum management.

Over the last two years, the ANRCTI has undergone several substantial changes, which have not helped to establish legal certainty and stability for the market participants. The president and the two vice-presidents are appointed by the Prime Minister for a five-year term. The president and the vice-presidents may be dismissed by the Prime Minister only for objective reasons defined in law. However, under the law approving Government Emergency Ordinance No 134/2006 on the establishment of the National Regulatory Authority for Communications and Information Technology, adopted by the Chamber of Deputies on 9 October 2007, the ANRCTI was to pass under the control of the Chamber of Deputies of the Parliament and was to receive binding instructions from the Ministry of Communications and Information Technology on how to implement national policy. At the same time, the Romanian State would still be an important shareholder in the fixed incumbent and the 100% shareholder in the national radio and television transmission company. The President of Romania refused to approve the law for constitutional and other reasons and sent it back to Parliament on November 5, 2007 for re-examination. The Commission's services have opened a dialogue with the Romanian authorities on this matter, as the proposed amendments could have threatened the independence and impartiality of the NRA. Following close cooperation with the Romanian authorities, amendments to the draft law will be proposed in order to address the Commission's concerns.

The privatisation of the fixed incumbent was carried out in two steps (in 1998 and 2003) with the Greek incumbent operator (OTE) taking over 54.01% of the fixed incumbent and the Romanian state holding the remaining 45.99%. The ownership rights of the Romanian state in the fixed incumbent are exercised by the Ministry.

The Administrative Division of the Bucharest Court of Appeal has first-instance jurisdiction for the ANRCTI's decisions. Appeal against an administrative decision does not have an automatic suspensory effect. Roughly 10% of ANRCTI's decisions are challenged before the appeal court. These appeals reduce legal security and predictability in the market because the Romanian courts are overburdened and a final decision by a second-instance court (High Court of Cassation and Justice) can take several years. Third-party appeal is possible in Romania.

**Market regulations**

Before accession to the EU, the ANRCTI had already analysed all the markets with the exceptions of the wholesale markets for mobile international roaming and for broadcasting transmission services and the retail market for leased lines. While the work of the ANRCTI in 2007 was in general found to be fairly efficient by some market participants, others have voiced criticisms for its failure to analyse the wholesale or even retail mobile access markets.

Despite the significant platform competition between the different network operators, the Romanian cable market is not regulated in line with a market analysis. In the market analysis carried out before 1 January 2007, the wholesale broadband access market was considered by the ANRCTI to be an emerging market. SMP operators have therefore not been designated and so no bitstream access offer is available.

In the local loop unbundling (LLU) market, the fixed incumbent was designated as an operator with SMP. Transparency (publication of a reference unbundling offer – RUO – for both full and shared access), non-discrimination, cost orientation, accounting separation, and access

obligations were imposed. The fixed incumbent's RUO was determined on the basis of the 'retail minus' methodology. By January 2008, only 1,035 local loops were fully unbundled (compared to 729 in January 2007) while no shared access was reported. While wholesale fees for LLU are in line with the EU average, alternative operators point to the low margin between the wholesale prices and retail prices of the fixed incumbent as explaining the low level of LLU.

The wholesale mobile access and call origination market has not been analysed yet and there are no virtual mobile network operators (MVNOs) in Romania. However, some interest has been reported by market participants. In addition, a new numbering domain has been defined in the national numbering plan for MVNOs.

The use of the second stage of a glide path imposed on the two major MNOs before Romania's accession to the European Union following the mobile termination market review, leading to symmetry of the mobile termination rates of the two main mobile network operators, was postponed by one year in December 2006. Subsequently, mobile termination rates were fixed at 7.21 cents per minute for 2007 (6.4 cents from January 1, 2008 and 5.03 cents from January 1, 2009). Only transparency and access obligations have been imposed on the third and fourth MNOs. The review of this market is planned soon.

All fixed wholesale markets and retail markets, with the exception of leased lines, were analysed by the NRA before Romanian accession to the European Union. On all these markets, the fixed incumbent has been designated as having SMP and remedies have been imposed accordingly.

Following several complaints about refusal of interconnection between the end-users of one of the two major cable operators and other operators, putting at risk end-to-end connectivity, the ANRCTI took a decision on August 6, 2007 obliging the major cable operator, not designated as an operator with SMP, to interconnect its network with other network operators if so requested, including conditions and the interconnection fee. The draft measure was notified to the European Commission under Article 5 of the Access Directive. Despite a fine of RON 100,000 (€30,000) imposed by the ANRCTI, the major cable operator has not fully applied the decision so far, raising the question as to whether the level of the fine was sufficiently dissuasive.

CPS became effective on June 30, 2006. Interconnection tariffs for call origination (including CS/CPS) are set by the ANRCTI based on a LRIC model. Nevertheless, alternative operators mostly do not provide electronic communications services via CS/CPS. Only around 74,500 of the 1.1 million subscribers served by the fixed alternative operators were using this facility by July 1, 2007.

Number portability does not exist for fixed or mobile numbers in Romania.

Although number portability is provided for under Romanian legislation, it should be available only in 2008<sup>24</sup>. The Commission services are looking into this matter.

#### c) Universal service and consumer issues

Taking into account the low fixed line penetration, Romania has implemented the universal service obligation mainly via a 'Telecentre' approach. The mid-term objective is to have 600 Telecentres installed and operating in villages with more than 400 inhabitants before the end of 2008, to allow citizens to make calls, receive calls and voice messages, use fax services, have broadband Internet access and make round-the-clock free-of-charge emergency calls using community rather than individual access. The Telecentres are operated by electronic communication service providers in cooperation with the local administrations, the operator being selected on the basis of public tenders for a period of 3 years. So far, 6 tenders have been awarded for 461 Telecentres, with 253 already operational. Many different operators are involved in the installation and management of the Telecentres.

In villages with fewer than 400 inhabitants and with no public payphone (roughly 3,600 villages of this kind exist in Romania), the installation of public payphones was envisaged but so far no

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<sup>24</sup> On October 30, 2008, the president of the National Authority for Communications announced, the porting of the first telephone number in Romania.

provider has been designated, since the sole participant in the pilot tender organised in 2007 was disqualified for failure to comply with the minimum requirements of the tender.

A Universal Service Fund has been set up by the ANRCTI and is financed by the market participants with an annual turnover exceeding €3 million. For 2006, the actual percentage of the contribution to the Fund was 0.389% (the ANRCTI decision capped the contribution for 2006 to a maximum of 0.5% and no more than €3 million) of the market participants' turnover, less the revenues from interconnection and inbound roaming. Although the Universal Service Fund is active, the ANRCTI decided not to collect the contributions for 2007.

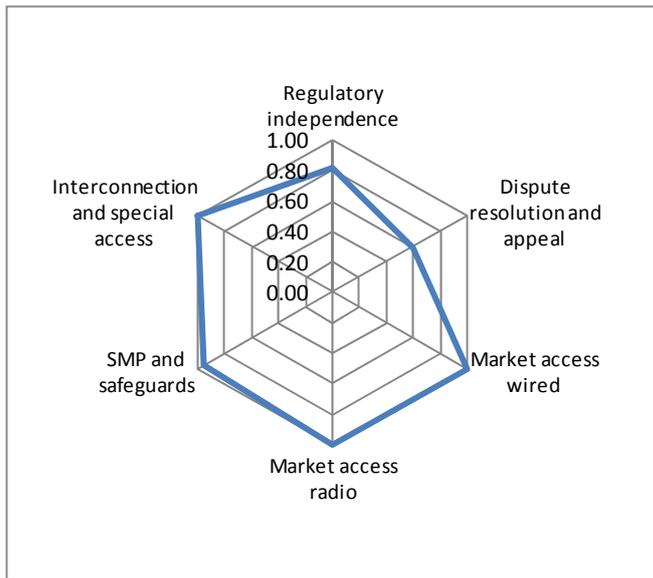
The Commission services are examining the conformity of these measures with the Universal Service Directive.

d) Assessment

Romania is deemed to have "Full compliance".

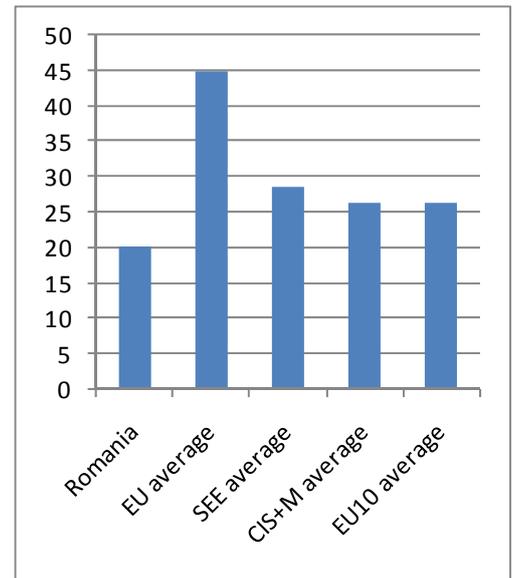
The category of "Full compliance" includes assessment scores between 90 and 100. Therefore, it is possible to have "Full compliance" even if a country is marked down on some of the indicators.

### Key indicators for Romania

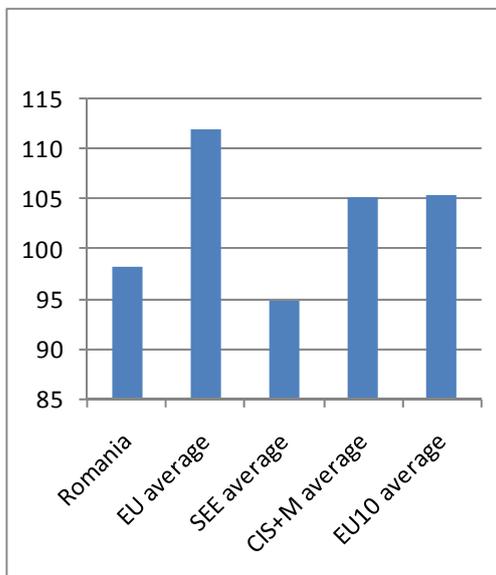


Regulatory spider diagram

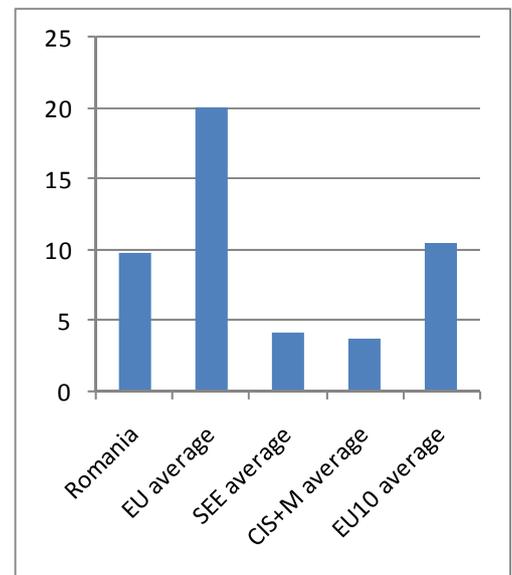
Even though Romania is assessed as having “Full compliance”, it has been marked down in the area of regulatory independence because of the relationship between the NRA and the Ministry as well as questionable sanction powers as explained in the country section above. Further more it has been marked down for lengthy appeal procedures and lack of implementation of number portability.



Fixed network penetration



Mobile network penetration



Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

## 10. Slovak Republic

The Slovak Republic became a Member State of the European Union on May 1, 2004.

### a) Market developments

The broadband market shows signs of inter-platform competition. However, the incumbent's position in the DSL sector remains unchallenged. The level of competition in the mobile market has risen considerably, with a new entrant launching its commercial service at the beginning of 2007. The fixed market has remained in the hands of the incumbent, while the largest mobile operator entered the fixed market with a substantial roll-out of FTTH infrastructure.

The total turnover of the telecommunications sector was €1.72 billion for the year ending December 31, 2006. The revenue from the fixed market was €463.8 million, and the revenue from the mobile market reached €1.1 billion. The total value of tangible investments was €387.2 million, of which €141.4 million came from mobile operators, €20.8 million from fixed alternative operators, and €65.7 million from the incumbent operator.

### b) Regulations

The NRA has been active in completing the process of imposing remedy obligations in the markets analysed in the first round of market reviews. It has also initiated a second round of reviews. However, the regulation in place for some markets does not so far appear to address the competition deficits fully and effectively. The reference offers of the incumbent contain conditions that are not accepted by the other market participants, and as such are not conducive to achieving the results intended by the regulation.

#### **Regulatory independence**

TÚSR (Telekomunikačný úrad Slovenskej republiky) appears to be facing continuing problems because of a lack of resources, in the areas of staff and finance. The NRA is funded by the Ministry's budget. There has been no progress with the mechanism for appeals against decisions made by TÚSR. An administrative appeal against a first-instance decision therefore still results in an automatic suspension of the decision's effects. The Commission is examining the mechanism's compatibility with the EU regulatory framework. Given that first-instance decisions are always appealed, the entry into effect of regulatory decisions is delayed in every case.

A structural separation of the regulatory function of the Ministry in the area of universal service financing and frequency allocation table was not ensured from its ownership and management of 34% of the incumbent's shares throughout the reporting period. The Commission has addressed the issue via an infringement proceeding. The Slovak authorities took corrective measures to address the issue in December 2007. As a result, the shares were transferred to the Ministry of Economy in January 2008. The infringement proceeding in this regard was closed shortly thereafter.

#### **Market regulation**

By 2006, the Slovak regulator, TÚSR, had completed the analysis of 16 markets defined in the previous Recommendation. During 2007, it continued to impose remedies on those remaining markets analysed in the first round of market reviews which were found not to be effectively competitive, and where the remedies have not yet been applied. A second round of market reviews has been initiated for five markets (based on the previous Recommendation) and the Commission has received three notifications. A new notification of the wholesale market of trunk segments of leased lines was withdrawn again.

The NRA continued to complete the process of imposing remedy obligations in the markets that were analysed during the first round of market reviews. During 2007, new remedies were introduced for the markets for the minimum set of leased lines, fixed transit services, wholesale broadband access and broadcasting transmission services. A full set of remedies, including price regulation, has therefore been imposed on the markets for fixed wholesale termination, fixed wholesale transit, wholesale broadband access and broadcasting transmission services. The NRA has also been closely involved in the monitoring and subsequent lowering of interconnection prices charged by the incumbent.

Remedies in the form of transparency, non-discrimination, accounting separation, and access and interconnection, including co-location and facility sharing, were already imposed on the incumbent in 2005 following the analysis of the LLU market. A full set of remedies (access, transparency, non-discrimination, accounting separation and price regulation) was imposed on the wholesale broadband access market in April 2007. The reference offer was published in September 2007.

Although reference offers are available for LLU and bitstream access, none of the alternative market participants has so far accepted them. The terms of these offers are said to be commercially unacceptable in both cases. Collocation appears to be an issue, along with unclear pricing and complicated ordering processes. Given the importance of these important markets for further broadband development, the Commission advised the TÚSR in its comments to re-examine the reference offers to ensure effective implementation of the obligations imposed on the incumbent.

The mobile access market was assessed as being effectively competitive and therefore regulation is not imposed.

Transparency, non-discrimination, accounting separation, and access and interconnection were imposed on the mobile call termination market in 2006. Mobile termination rates appear to be relatively low, even without price regulation. The Supreme Court ruled on the appeal by the smaller operator against the remedy, confirming the regulator's decision.

All of the relevant markets for fixed telephony from the previous Recommendation have been assessed as non-competitive, with the incumbent having the SMP.

On the fixed retail call markets, the remedies of non-discrimination, service unbundling and a ban on charging excessive prices were imposed in 2006. Remedies imposed in the market of the minimum set of leased lines in 2007 include price regulation.

In the fixed wholesale markets, a full set of remedies including price regulation (LRIC) has been applied in the fixed call termination market since 2005.

Access markets have been regulated by CS/CPS, non-discrimination and service unbundling since 2005.

After fixed number portability became available for all operators, the Commission closed the related infringement proceeding in June 2007. Fixed portability is based on bilateral agreements between operators, but is not a part of the RIO as such. Certain cumbersome procedures for customers' applications to port were abandoned by the incumbent following pressure from the regulator. The incumbent was fined for non-compliance with several requirements laid down by the NRA. By October 2007, more than 91,000 fixed numbers had been ported.

Mobile number portability became available in 2006 for the mobile operators. The number of ported mobile numbers continues to increase (it is now over 10,000).

c) Universal service and consumer issues

The incumbent was designated as the sole universal service provider in 2006. The existing scope of the universal service covers all elements envisaged in the EU regulatory framework.

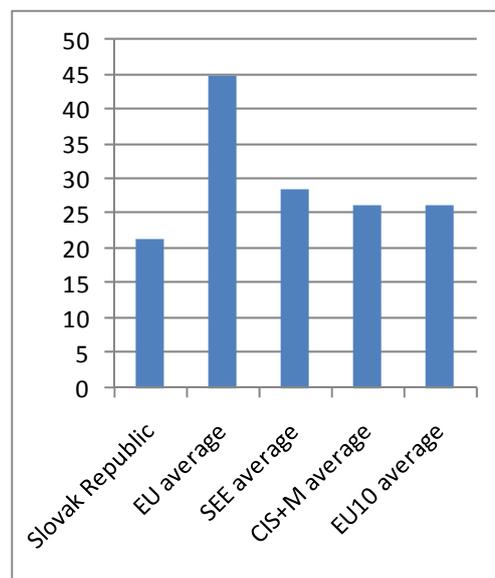
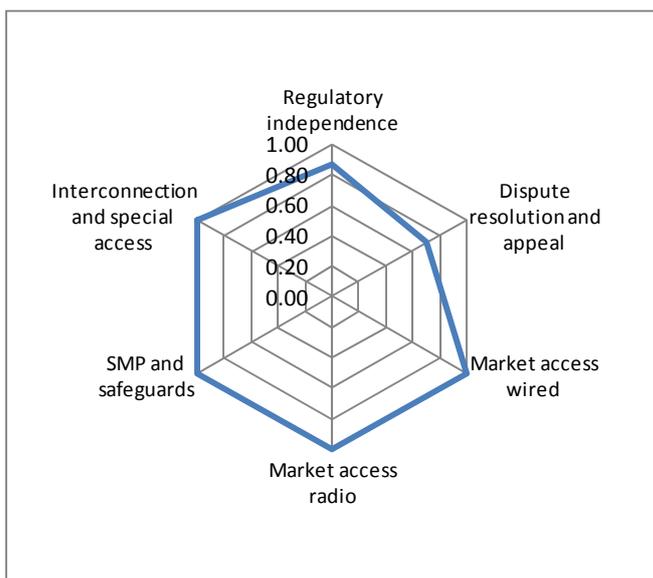
The legislation provides for the possibility of universal service financing from a fund financed by contributions from the market participants. The designated operator requested compensation for the first time in December 2007. The NRA is yet to take a decision on the existence of an unfair burden.

d) Assessment

The Slovak Republic is deemed to have "Full compliance".

The category of "Full compliance" includes assessment scores between 90 and 100. Therefore, it is possible to have "Full compliance" even if a country is marked down on some of the indicators.

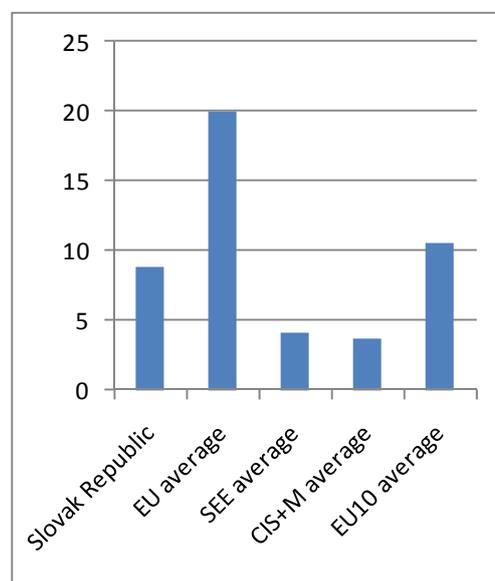
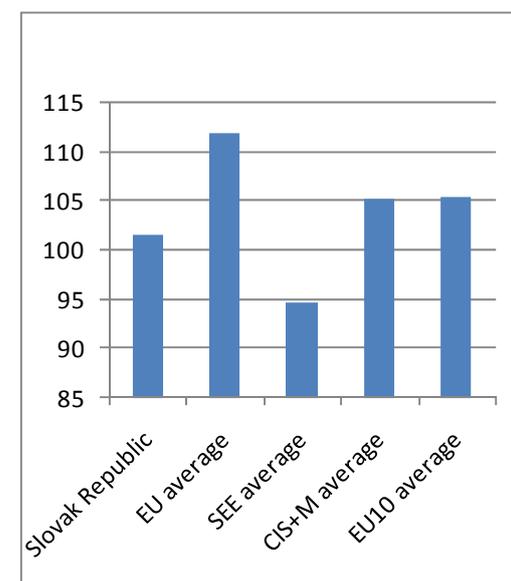
### Key indicators for the Slovak Republic



#### Regulatory spider diagram

Even though the Slovak Republic is assessed as having “Full compliance”, it has been marked down in the area of regulatory independence for lack of budget control as well weaknesses in the appeal system as explained in the country section above.

#### Fixed network penetration



#### Mobile network penetration

#### Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

### 11. Slovenia

Slovenia became a Member State of the European Union on May 1, 2004.

## a) Market developments

The positive trends from 2006 have continued, in particular in terms of growth in the broadband and mobile markets (including 3G). Thanks to effective price regulation, broadband penetration and local loop unbundling have grown substantially since the last report. In autumn 2007, the third mobile network operator entered the market, increasing competition for the provision of bundled services. However, fixed telephony remains largely non-competitive, with a risk of concentration of market power for the provision of IP-based services.

A total of €191 million was invested in the electronic communications sector in Slovenia in 2006, of which fixed alternative operators invested €38.5 million, roughly half the incumbent's total investment and more than half the mobile operator's overall investment. In recent years, the telecommunications sector in Slovenia has performed decidedly better than the rest of the economy. Revenue in the telecommunications sector in 2006 totalled €1,048 million, which was €98 million more than in 2005. In 2006 revenue from the fixed market stood at €382 million, while the mobile market generated some €502 million.

## b) Regulations

The national regulatory authority (NRA) has been quite effective and has dealt with a number of regulatory challenges resulting from market and technological developments. However, non-price-related aspects of regulation as well as the introduction of incentives to reduce the discriminatory behaviour of operators with significant market power will be crucial to further improve and strengthen competition, especially in the fixed sector.

**Regulatory independence**

The Agency for Postal and Electronic Communications (APEK) has 80 employees; eight employees are authorised as inspectors and three of them deal with daily market monitoring and supervision in the area of electronic communications. In the area of broadcasting, the NRA assigns radio spectrum and monitors pluralism and content obligations.

The NRA's independence to exercise its statutory tasks remains unchallenged. The NRA has been active not only in solving disputes but also in providing advice to end-users, notably via a free-phone line. However, alternative operators continue to point to difficulties in their dialogue with the NRA, in particular to the fact that their comments are disregarded during consultations in the context of market analyses, citing lack of precision about the obligations imposed on operators with significant market power (SMP) as one of the key issues hampering effective regulation. The NRA is further criticised for lacking initiative when acting in its capacity as a supervisor of remedies imposed on operators with SMP.

The NRA can impose fines of up to €83,460 on legal entities and up to €1,250 on individuals.

**Market regulation**

The NRA started the second round of market analyses, re-analysing six markets, and continued to supervise implementation of remedies. In the second round, APEK has moved from a fully allocated cost (FAC) accounting model to a long-run incremental cost (LRIC) model (top-down approach) on all wholesale fixed call markets, the wholesale unbundled access market and the wholesale mobile call market.

However, for the implementation of remedies, the nature of the NRA's supervisory powers was questioned following findings by the Ministry of the Economy (the former administrative appeal body) that some measures exceeded the supervisory nature of the role of the NRA and should have been determined during APEK's market analysis. Nevertheless, decisions have generally been observed by the SMP operators and have contributed to improving market access.

In spite of the relatively early introduction of the reference unbundling offer (RUO) dating back more than two and a half years, various amendments to it and measures stemming from supervisory control have failed to address several facets of the incumbent's significant position. Price regulation, though, has shown some improvement. For example, monthly rental fees for full LLU have dropped below the EU average and are now €8.77, but the price for shared access is slightly above the EU average, at €3.27 per month.

Despite a number of recent measures by the incumbent which improved some technical, non-price-related parameters of the reference offer, based on regulatory decisions by the NRA –

focusing on improving equal treatment (such as financial compensation for non-compliance with SLA deadlines), transparency and reducing requirements on the size of co-locations – the incumbent is continuing to behave evasively when providing access to its infrastructure under equal conditions for all.

For much of 2007, mobile operators continued to charge higher termination charges for calls originating in fixed networks. This largely allowed them to cross-subsidise their retail activities, leading to a situation where the prices of on-net calls of mobile operators are nearly two times lower than the termination rates charged to alternative fixed telephony service providers. However, following the NRA's decision, equal fixed-to-mobile and mobile-to-mobile termination rates have been applied since September 1, 2007.

In the market for traditional PSTN and ISDN technologies, the incumbent still holds a share of nearly 98% of traffic generated. Only 5% of subscribers use alternative providers for voice telephony services. With growing investment in IP-based telephony, which has remained unregulated, a gradual, but resolute, migration towards an IP-based network (largely built on fibre) has led to increasing concern and uncertainty among the market participants.

VoIP termination rates charged by the incumbent (2.5 eurocents) are significantly higher than the traditional TDM-based termination rate at local level (1 eurocent). In addition, calls originating from alternative operators' networks and terminating within the numbering range of an integrated ex-ISP branch are considered as calls to ported numbers, with the result that alternative operators are charged for technically unjustified transit over the incumbent's network. At the same time, the incumbent succeeded in delaying the access of alternative operators to its copper-based network, by attaching a set of complicated conditions to the RUO, which therefore lacks a sufficient degree of service unbundling. It is the Commission's services' view that the markets for call origination and termination on networks at a fixed location require particular regulatory attention.

The introduction of carrier selection and carrier pre-selection (CS/CPS) a few years ago has been beneficial for competition in international calls, but not for national calls. Only one alternative operator is using the CS/CPS services for domestic calls.

The availability of number portability has not significantly affected the behaviour patterns of Slovenian consumers, who continue to prefer their first-choice operator. Less than 4% of numbers have been ported since the introduction of number portability in 2006. Some 52,000 fixed and 48,000 mobile numbers had been ported by December 2007

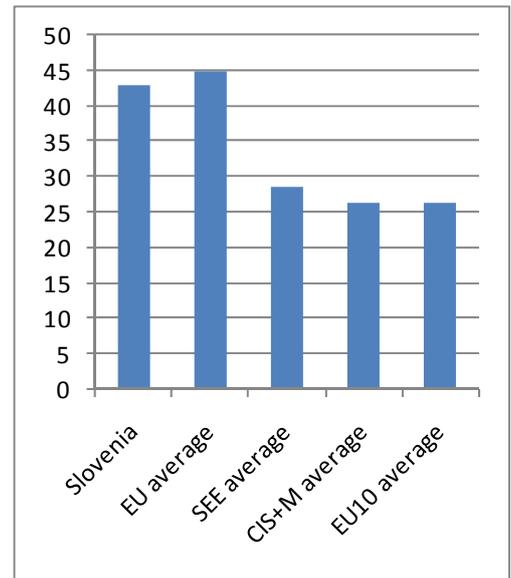
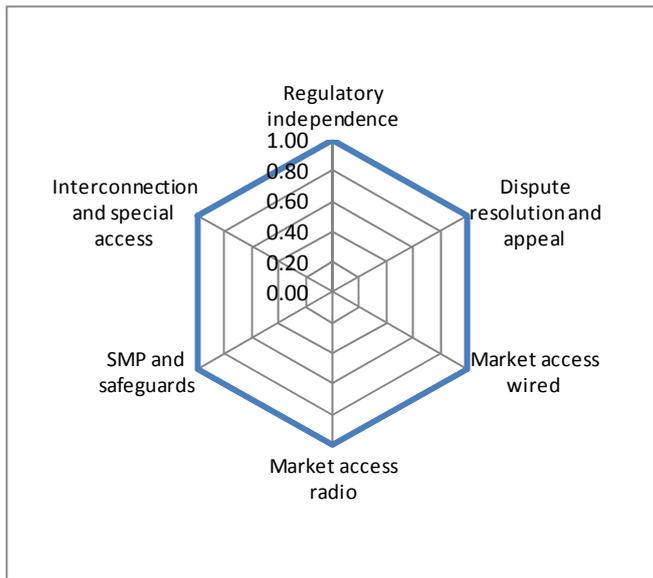
c) Universal service and consumer issues

The fixed incumbent was appointed as universal service (US) provider for a period of five years in 2004 and, since January 2006, is also under an obligation to provide US to disabled and disadvantaged users.

d) Assessment

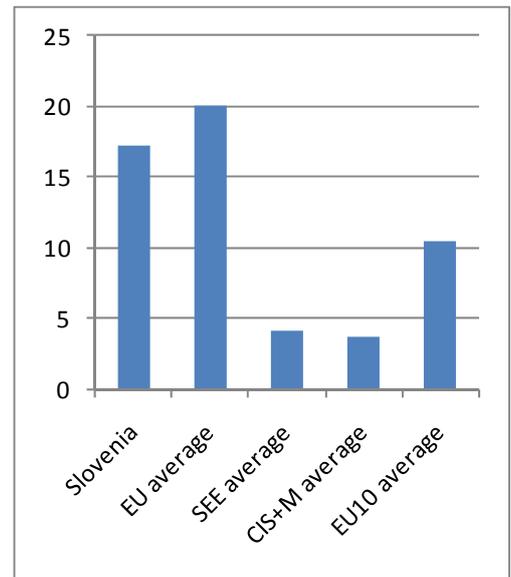
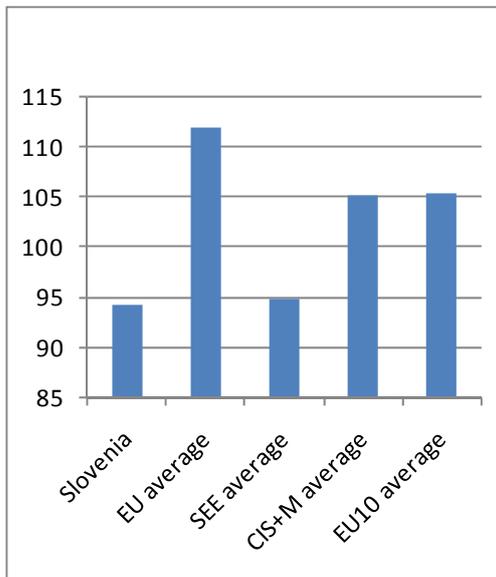
Slovenia is deemed to have "Full compliance".

Key indicators for Slovenia



Regulatory spider diagram

Fixed network penetration



Mobile network penetration

Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to "Explanation of assessment and results" in Section II of this report.

## IV. REGIONAL ASSESSMENTS

### A. Case studies giving some special features of progress.

#### 1. Romania

Romania came out from the communist era with one of the most difficult starting points in Europe. It had one of the lowest fixed network penetration rates of about 20%, around 2,000 villages without any form of connection to telecommunications networks and one of the lowest levels of GDP per capita in Europe.

The country decided to implement full liberalisation of the telecommunications sector from 2003 based on the 2002 version of the EU regulatory framework. Romania therefore became the first country outside the EU to carry out the type of market analysis required by this framework and became the first country outside the EU to implement a general authorisation regime for any service not dependent on scarce resources.

Romania can now boast to be among the leading countries of its region in mobile as well as broadband penetration. The country has been particularly successful in the development of broadband access and had a penetration rate of 9.8% at the beginning of 2008. Although this is at the low end of the scale among the EU Member States, it is the highest in the SEE region. Interestingly, this result has been achieved through infrastructure competition where Romania's over 2,000 registered alternative providers of electronic communications networks provide broadband access with a range of technologies and relatively modest participation from the incumbent operator.

Romania also has an interesting approach to the extension of modern telecommunications to its remote villages. Its universal service approach is based on competitive tenders for the establishment of village Telecentres. Each Telecentre is equipped with at least two telephones, two computers with Internet connection and a fax machine. The whole community may use the services offered by the Telecentre, at affordable tariffs. According to the regulatory authority, ANRCTI, "*the telecentres are the outpost of the communications infrastructure that facilitates the deployment of the networks to the individual households*". By May 2008, ANRCTI had organised tenders for the installation of Telecentres in 633 localities. 350 Telecentres were already functional. They have been installed and are operated by seven different operators.<sup>25</sup>

#### 2. Croatia

In the 1980s, Croatia had an economy and a telephone network that were ahead of communist Central Europe. Fighting for independence damaged its telephone network but this was quickly repaired and modernised. However, its economy suffered a significant setback.

Delay in achieving normal diplomatic relations with the EU denied Croatian officials access to 1990s aid programmes that explained liberalisation policy to EU aspirants.

Croatia's deal in 1999 to privatise its fully modernised network into the control of a foreign state-controlled incumbent came before a suitable regulatory regime had been created and at the price of delaying full liberalisation for five years. Investment in Croatian telecommunications then depended on circumstances elsewhere rather than on the needs of Croatia.

A credible independent regulator was created in 2004 and a third mobile operator was immediately licensed. This ignited popular belief in liberalisation and policy began to shift. Full alignment of the law with EU requirements was finally achieved in 2008.

The legacy of reluctant acceptance of liberalisation is heavy domination of the fixed market today and the relatively retarded development of broadband penetration where Croatia is still catching up with its peers. In implementing the new law, the regulator must now secure for Croatia the full benefits of competition in this sector.<sup>26</sup>

<sup>25</sup> Written by Jan H. Guettler, Cullen International (EBRD project, 2008)

<sup>26</sup> Written by R H Harris, EU CARDS Project 2007.

### 3. Mongolia

Access to telecommunications services has been extremely limited in the remote and sparsely populated areas of Mongolia. Several factors have conspired against achieving universal access on a purely commercial basis - the country's vast and challenging geography, the nomadic lifestyle of the rural population, government ownership and incumbent control of the long-distance transmission network.

As first steps in rolling out a universal access programme, two pilot projects are bringing phone service to remote herder communities and mobile phone and Internet services to rural villages. To support the delivery of these services, onetime subsidies were competitively awarded to licensed telecommunications operators in Mongolia. These are output-based subsidies: the winning bidders take on the investment risks of expanding their networks, receiving subsidy payments largely only after meeting service targets. The operators are obliged to continue offering the services for the duration of their 5-year service agreements without further subsidy.

Mongolia has the lowest population density in the world. Its population of 2.7 million is spread over a vast territory - featuring wide plains, high mountain ranges, and the Gobi desert. Its rural inhabitants, numbering just over 1 million, are spread thinly. About a third of these live in 330 soum (district) centres. The rest are herders. Largely nomadic, they move with their herds between different summer and winter locations.

The universal access programme set specific targets, such as having at least one mobile or wireless operator in each soum centre, offering broadband wireless Internet service in some soum centres, and, having at least public access telephone service in the country's 1,500 remote herder communities, or baghs. To finance network expansion into rural areas, the country's Communications Law of 2001 called for a universal service obligation fund. Later legislation stipulated that operators will contribute to the fund through a 2 percent levy on their taxable income starting in 2007. This fund was set up with the assistance of the World Bank through grants from the Public-Private Infrastructure Advisory Facility (PPIAF) and the Global Partnership on Output-Based Aid (GPOBA). The World Bank also provided seed financing of \$5.5 million for the initial universal access subsidy projects.<sup>27</sup>

### 4. Tajikistan

Although the geography of this mountainous Central Asian country presents a challenging physical landscape, and telecommunications sector regulation remains undeveloped, the sector is seeking to become one of the most dynamically developing sectors of Tajikistan's market economy. Based on the investment boost caused by market liberalisation, Tajik service providers have leapfrogged a generation of telecommunications technology by investing in Next Generation Networks, 3<sup>rd</sup> Generation mobile and fixed wireless access. These are being used to offer citizens, at least in Tajikistan's largest cities, 21<sup>st</sup> Century services well in advance of its neighbours.

Independent telecommunications companies such as Telecom Technology, Indigo and Babylon started along with the many other mobile operators and have grown into integrated fixed, Internet and broadband providers. It is possible to buy a single mobile handset offering the full range of TV, fast Internet and videophone services based on integrated fixed (NGN) and mobile (3G) access at packaged tariffs set below conventional levels.

Domestic and internationally backed operators are contributing to the network investments. A liberal licensing policy and comparatively low market entrance cost are driving the rapid growth of operators and related competition.

Government-owned TajikTelecom is doing its part by converting its infrastructure to digital, but an under-developed regulatory regime has not yet overcome restrictions on access to the national infrastructure. This has incentivised the independent operators to invest in their own infrastructure, deploying the latest technologies faster, especially in the cities.

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<sup>27</sup> Written by A Dymond, S Oestmann, S McConnel, Intelcon Research & Consultancy Limited (World Bank project, 2007)

Meanwhile, the expansion of even basic services to the general population, especially in rural areas, must await a new approach to market regulation, with a more liberalised, transparent and non-discriminatory regime.<sup>28</sup>

## B. Summary of Assessment Results

The assessment results are presented by sub-regions within the EBRD region. These are three distinct geographical regions;

a) The CIS region (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan) plus Mongolia (referred to as "CIS+M").

A subset of this region (the "Early Transition Countries") is also presented. This region includes Armenia, Azerbaijan, Georgia, Kyrgyz Republic, Moldova, Tajikistan, and Uzbekistan.

b) The South Eastern Europe Region (Albania, Bosnia-Herzegovina, Croatia, Montenegro, Serbia - with Kosovo assessed separately - and FYR Macedonia), referred to as "SEE Region".

Turkey (which has applied for EBRD country of operation status) has been added to provide a further reference for comparison in sub-region 2.

c) The EU member states (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, and Slovenia).

### 1. Explanation of the assessments

The results of the assessments fall into three major areas:

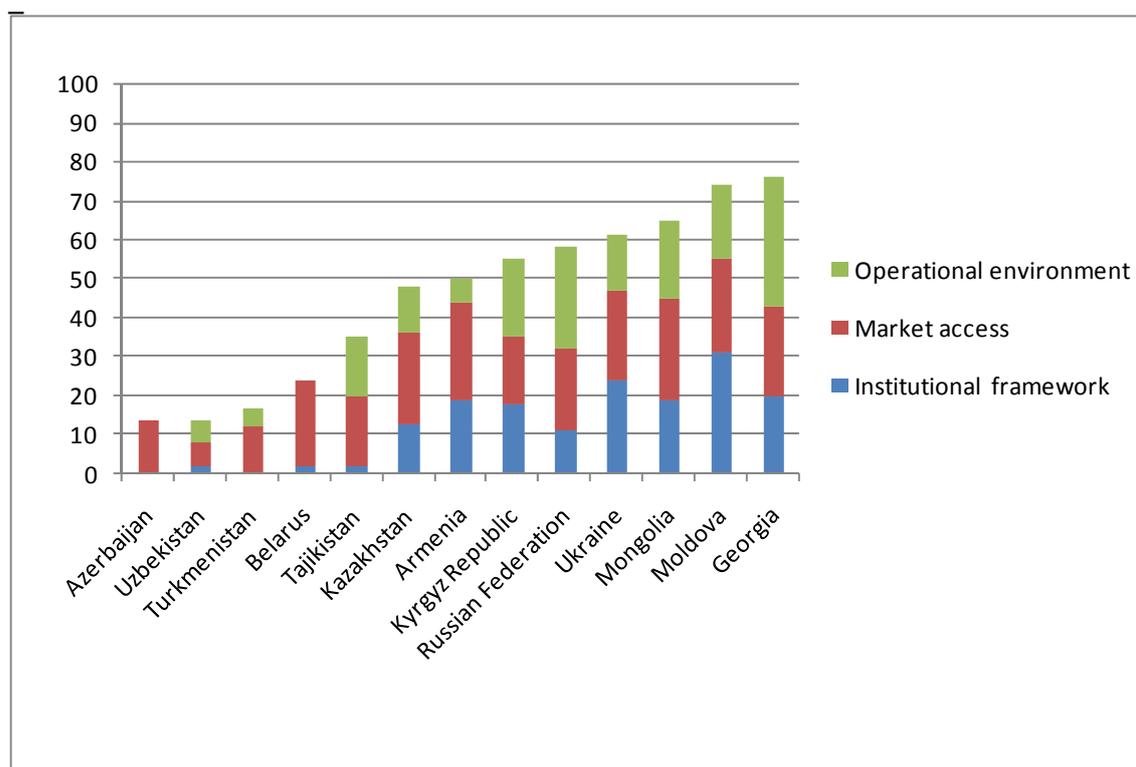
1. Regulatory environment
2. Market access
3. Operational environment

In addition, an assessment is made about whether universal service obligations may present problematic or unfair conditions for operators.

#### a) CIS countries and Mongolia (CIS+M)

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<sup>28</sup> Written by P Lundy, Development Dynamics Limited (EBRD project 2008)



Regulatory assessment CIS countries and Mongolia

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

### Regulatory environment

The first objective of the assessment is to consider whether there is an independent regulatory authority. In five countries, it has been concluded that this is not the case:

- Azerbaijan. This country does not have a separate regulatory authority. Regulations are dealt with by a department within the Ministry. At the same time, the state has ownership in five operators.
- Belarus. Similarly to Azerbaijan, Belarus does not have a separate regulatory authority. Regulations are dealt with by a department within the Ministry. At the same time, the state has ownership in four operators.
- Uzbekistan. This country does have a regulatory authority that is separate from the Ministry. However, the regulator can be instructed by the Deputy Prime Minister who is also chairman of the incumbent operator.
- Tajikistan. This country has a regulatory authority, which is separate from the Ministry. However, there is nothing to prevent the Deputy Minister responsible for telecommunications, who is also chairman of the incumbent operator, to instruct the regulatory authority.
- Turkmenistan. This country has no separate regulatory authority. The state has full ownership of three operators and the same ministry is responsible for ownership and regulations.

All these countries have been given zero points for regulatory independence. This makes a significant contribution to the assessment that these countries have low compliance. This does not necessarily mean that the markets in all these countries are not functioning well. In some cases, there is reasonable investment and competition in spite of the lack of regulatory independence. This could be through enlightened “management of competition”, but it is not regulatory independence as understood in the WTO reference paper.

## Market access

The first component of market access looks at authorisation requirements for activities that do not require scarce resources. The ideal solution is that all such activities may be performed based on general authorisations without prior approval from the authorities. Moldova is the only country in the region that has decided to establish this regime.

The other alternative, which is fully acceptable for the purposes of this assessment, is that all types of telecommunications activities can be performed based on a licence granted through an administrative procedure with low licence fees. Many countries come close to meeting these conditions including Armenia, Kazakhstan, Mongolia, Russia, and Tajikistan.

However, in other countries there are still special or exclusive rights. Azerbaijan, Belarus, and Uzbekistan have restrictions on international traffic; Turkmenistan has a de facto monopoly for international traffic.

Other countries, such as Kyrgyz Republic, grant licences after political considerations.

The second component of market access looks at the procedures for granting access to scarce resources with a focus on radio frequency spectrum. Most countries have legislation that requires fair and non-discriminatory procedures. However, such conditions are not evident in Azerbaijan, Russia, Ukraine, Uzbekistan, Tajikistan, and Turkmenistan.

The practice of publishing the radio frequency plan on a website is now normal practice. However, it is still not the case in Uzbekistan, Tajikistan, and Turkmenistan.

## Operational conditions

A first set of indicators looks at the regime for control of significant market power. It considers whether there is such a regime and whether analyses have been made and SMP operators have been designated.

Azerbaijan, Belarus, Uzbekistan, and Turkmenistan have not yet established SMP regimes. In addition, Ukraine and Tajikistan lack a fully developed regime and they have not yet made any SMP designations.

Armenia has established an SMP framework, but has not yet completed any market analysis. Kazakhstan has started to carry out market analyses, but these have not yet been used to make any SMP designation.

The introduction of competitive safeguards such as carrier selection and pre-selection and number portability is missing for most countries. It has not yet reached the status of an established plan in Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyz Republic, Moldova, and Turkmenistan.

Most countries have established some kind of a reference interconnection offer as a basis for interconnection agreements. Only Azerbaijan and Belarus have not yet done so.

Even where such RIOs are reported as having been established, they appear not always to be used by the operators in the market. Only Georgia, Kyrgyz Republic, Moldova, Mongolia, Russia, Ukraine, and Tajikistan report that they are in general use.

Local loop unbundling is the exception rather than the rule. Georgia has made most progress and can report that an unbundling regime is operational. It is being introduced in Moldova, Kyrgyz Republic, Uzbekistan, and Tajikistan.

## Universal service

Most countries do not have explicit universal service obligations or obligations that involve new entrants in the market. There are two exceptions:

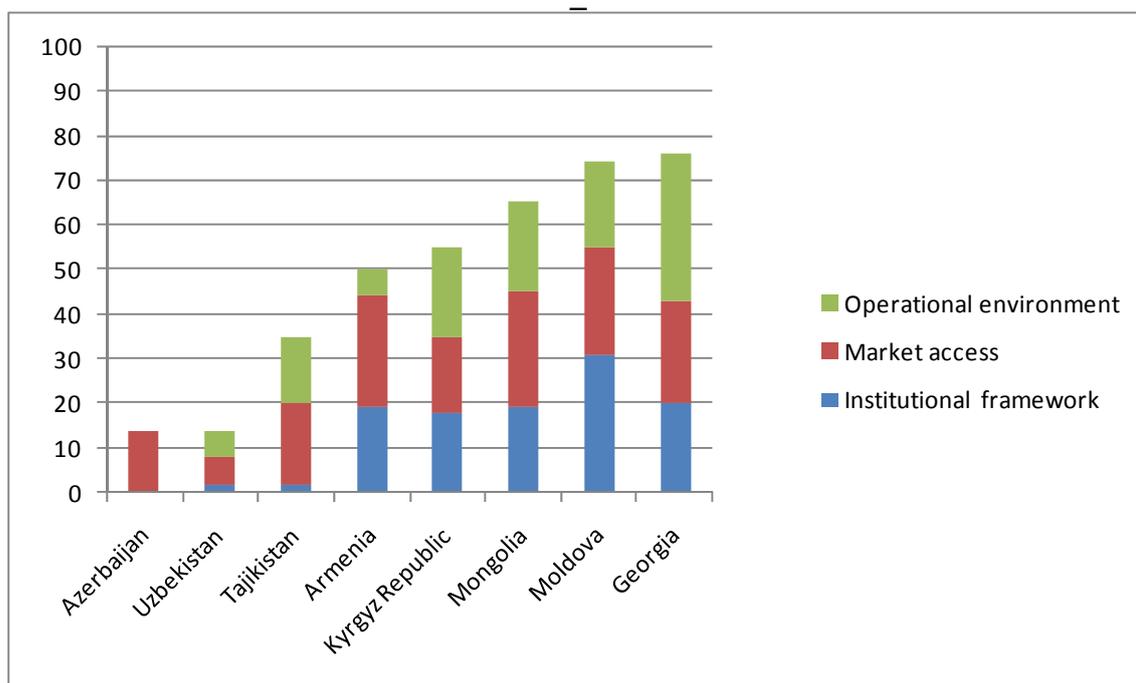
- Belarus has a tender procedure for designation of universal service providers, but the conditions do not respect technological neutrality and the contributions by other operators is as high as 1.5% of revenue.
- Russia does not have specific technological requirements, but USO operators must have a licence for local telephony. In practice, this seems to bar mobile operators from being USO providers. The contribution is rather high at 1.2% of revenue.

### **Conclusions on regulatory compliance for CIS+M sub-region**

These assessments lead to the overall conclusions that:

- High compliance is found in Georgia;
- Medium compliance is found in Armenia, Kyrgyz Republic, Moldova, Mongolia, Russia, and Ukraine.
- Low compliance is found in Azerbaijan, Belarus, Kazakhstan, Uzbekistan, Tajikistan, and Turkmenistan.

Early transition countries



Regulatory assessment Early Transition Countries

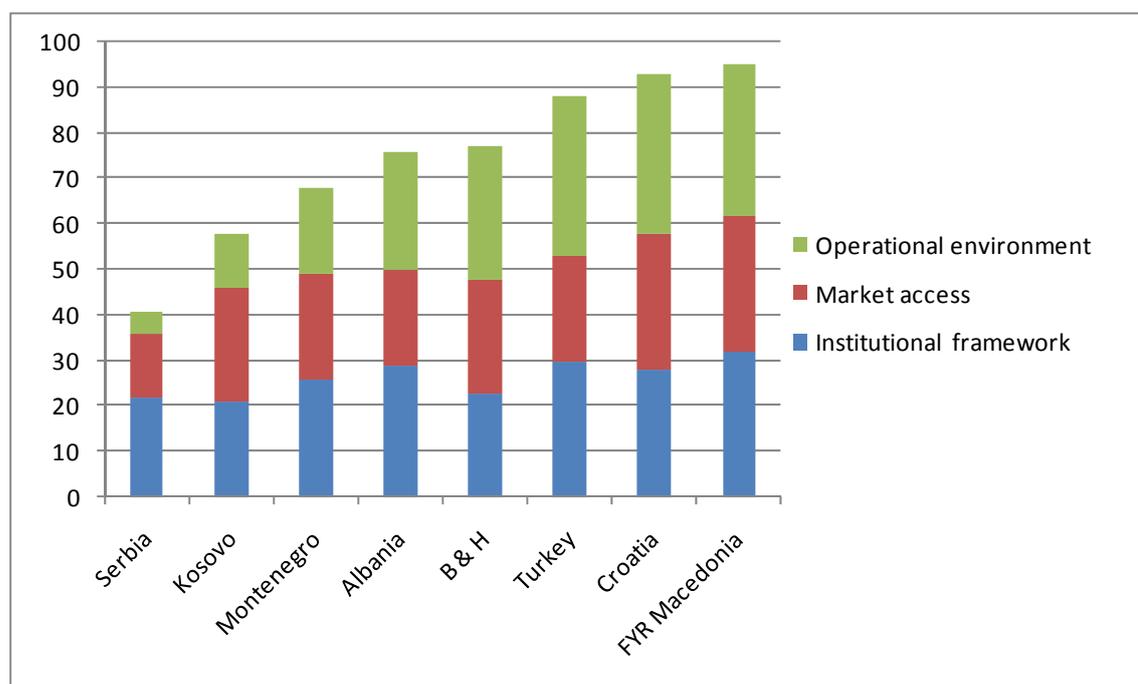
For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

The EBRD explains<sup>29</sup> the role of the Early Transition Countries as follows:

*In November 2004, the EBRD Board of Directors approved the creation of a new multi donor fund for the support of economic development in the poorest countries, the EBRD ETC Initiative. In the Early Transition Countries (ETCs) include Armenia, Azerbaijan, Georgia, Kyrgyz Republic, Moldova, Tajikistan and Uzbekistan. The challenges posed in the ETC are considerable, and EBRD has launched this initiative to deliver a stronger transition impact in these countries.*

b) SEE Region

<sup>29</sup> EBRD’s website: <http://www.ebrd.com/apply/tambas/donors/etc.htm>



Regulatory assessment for the SEE Region

For details of the definitions of the main terms used in these graphics, please refer to “*Explanation of assessment and results*” in Section II of this report.

### Regulatory environment

Independent regulatory authorities that meet the conditions defined in our assessment model<sup>30</sup> have been established throughout almost all of the South East Europe Region. Kosovo is deemed to have the weakest arrangement because the NRA is financially dependent on the state budget, it lacks a clear requirement for consultation with market participants and only one example is provided where the NRA has acted against the incumbent operator. Nevertheless, Kosovo is ranked on par with the best from the CIS+M group.

For dispute resolution and appeal, Albania, Croatia, FYR Macedonia, and Turkey can provide several examples of dispute cases that have been successfully resolved.

Some within the SEE Region have legislation that triggers automatic suspension when a regulatory decision is appealed. This is the case for Albania and Serbia. Automatic suspension can seriously weaken the authority of the regulator, in particular where the appeal procedure is lengthy. In Croatia, an appeal can take several years.

### Market access

FYR Macedonia, and recently Albania and Croatia after adoption of their new laws, have established a framework with general authorisations in line with the EU requirements for all activities that do not require access to scarce resources.

Serbia ranks at the other end of the scale, because it has not yet established an operational licensing regime for fixed telephony networks and services.

The other constituents of the SEE Region have licensing regimes with some remaining deficiencies, in particular for telephony:

- Bosnia & Herzegovina have high licensing fees which may act as a barrier to entry;
- Montenegro grants licences through a tendering procedure;
- Kosovo has high licensing fees which may act as a barrier to entry;

<sup>30</sup> The situation in Montenegro has changed following the passing of a new Law in August 2008, see footnote 16

- Turkey has restrictions on the granting of licences.

The provisions for granting rights to scarce resources are mostly correct. However, Serbia has been marked down for granting a mobile licence to the incumbent operator without a competitive procedure within the last three years.

### **Operational environment**

Regimes are in place for market analysis and designation of operators with significant market power throughout the SEE Region, although it is fairly rudimentary in Kosovo.

In Albania, Bosnia & Herzegovina, FYR Macedonia, and Turkey the regimes meet or resemble the requirements of the EU, i.e. precise definition of retail and wholesale markets. In Montenegro and Serbia, the regime is still based on the 1998 *acquis* of the European Union, while Croatia is in transition from the 1998 to the 2002 *acquis*.

Most regulators in the SEE Region have designated SMP operators and established remedies to ensure fair competition. However, this has not yet happened in Montenegro. Serbia has designated two operators, but there is no available information on what remedies have been applied. Kosovo has designated an operator with a range of remedies, but only for retail markets. There has been no SMP designation yet for wholesale markets.

Albania, Serbia, and Kosovo have not yet taken steps to implement carrier selection, pre-selection and number portability. In Bosnia & Herzegovina and Croatia, these safeguards are operational, while in FYR Macedonia and Turkey they are now partly implemented.

Reference interconnection offers are implemented and operational in most of the SEE Region. The main exception is Serbia, where a RIO is not yet established.

Only Croatia and Turkey have implemented local loop unbundling in practice. FYR Macedonia has established the enabling regulations, but cannot demonstrate that it is being used yet.

### **Universal service**

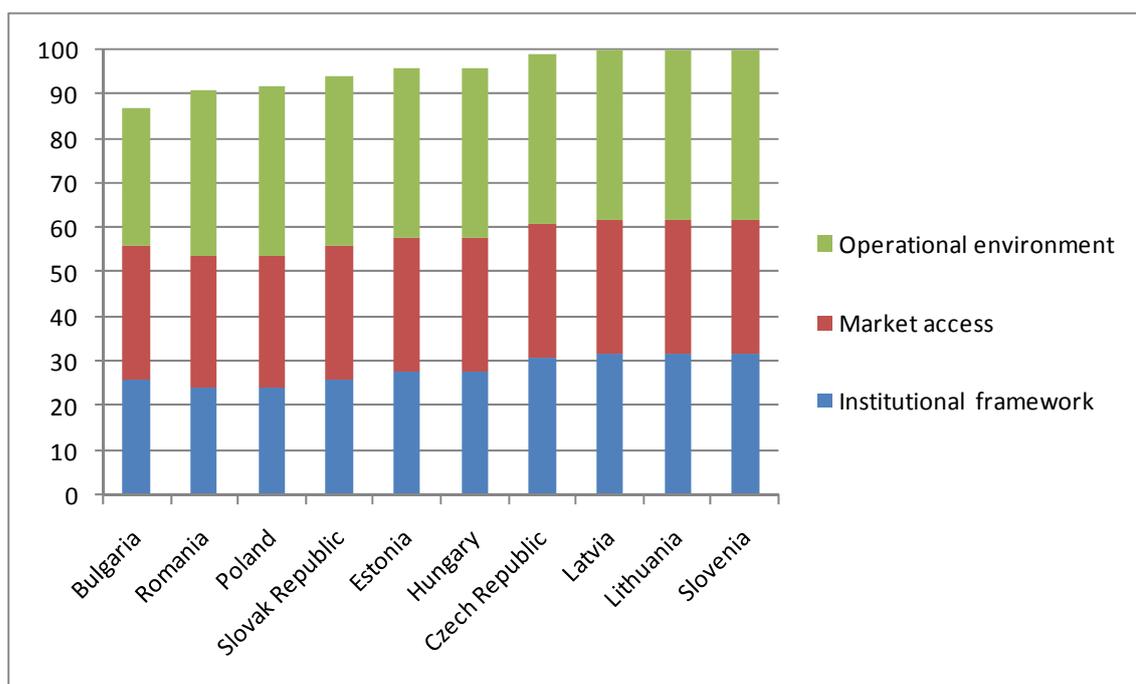
Throughout the SEE Region the criteria for universal service is met as defined by our assessment model.

### **Conclusions on regulatory compliance for SEE sub-region**

These assessments lead to the overall conclusions that:

- Full compliance is found in Croatia and FYR Macedonia;
- High compliance is found in Albania, Bosnia & Herzegovina and Turkey;
- Medium compliance is found in Montenegro and Kosovo;
- Low compliance is found in Serbia.

- c) EBRD countries of operation that are EU Member States



Regulatory assessment EU Member States

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

### Regulatory environment

The 13<sup>th</sup> Implementation Report<sup>31</sup> raises concerns in the following countries:

- In Bulgaria, the State agency (which corresponds with a Ministry in most countries) has management in a board position with the incumbent operator where the state also retains a golden share. The NRA is dependent on the state budget for its financing. Lastly, the sanction powers of the NRA are questioned because it can only levy low fines.
- In Estonia, the NRA lacks control over its budget. Its sanction powers are also questioned as the fines it can levy are low.
- Hungary is being criticised for having an appeal procedure that takes 2-3 years.
- In Poland, the NRA lacks control over its own budget. It is criticised for lack of enforcement powers and the appeal procedure takes a long time.
- Romania is being criticised because the Ministry has the power to instruct the regulatory authority. Furthermore, the position as head of the NRA is not adequately protected as its management may be dismissed by the Prime Minister. Its sanction powers are also questioned, and the appeal procedure can take several years.
- In Slovakia, the NRA lacks control over its own funding. There are also weaknesses in the appeal system.

### Market access

There are no particular issues about market access.

### Operational environment

The 13<sup>th</sup> Implementation report raises concerns in the following countries:

<sup>31</sup> Progress Report on the Single European Electronic Communications Market 2007 (13th Report) {COM(2008) 153}

- Bulgaria has not yet performed the market analysis according to the 2002 *acquis*. The country is also late with number portability.
- At the time of the implementation report, Poland had not yet fully completed the conversion from the 1998 *acquis* to the 2002 *acquis* for designation of significant market power.
- Romania has not yet implemented number portability<sup>32</sup>.

#### **Universal service**

- For Romania, the unique system of competitive tenders for the installation and operation of Telecentres in remote villages is being questioned for its compatibility with the EU framework.

#### **Conclusions on regulatory compliance in the EU sub-region**

These assessments lead to the overall conclusions that:

- High compliance is found in Bulgaria;
- Full compliance is found in all the other countries: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia. [Note that the category of "Full compliance" includes assessment scores between 90 and 100. Therefore, it is possible to have "Full compliance" even if a country is marked down on some of the indicators.]

### **C. Performance against Sector Benchmarks**

Information on the penetration of fixed networks, mobile services, and broadband services was collected from the EBRD countries of operation during the assessment. In most cases, this information is collected routinely by government ministries or sector regulators. In other cases, independent sources were used. In the case of the EU, fixed line penetration is no longer reported in the Implementation Report<sup>33</sup>, and we have relied on the ITU database for comparable figures. In some other countries, where figures in comparable form were not available centrally from government or regulatory sources, we have relied upon independent estimates from press releases or interviews with the main market operators.

In the graphical presentations that follow, fixed network penetration, mobile penetration and broadband penetration levels are compared within each of the three sub-regions (EBRD countries of operation in the EU, the SEE Region, CIS countries plus Mongolia) and within the ETC countries, in addition to the EU with its 27 Member States. All penetration figures are expressed in terms of numbers of lines in service per 100 population.

To allow comparisons within each sub-region, and between sub-regions, the average penetration for each sub-region is shown on each graph. In some graphs, the range of highest and lowest is also shown for particular sub-regions.

For broadband, if the penetration has been estimated at less than 1 per 100 population (<1%), no figure is shown on the graphs.

For CIS+M and the SEE Region, the information was collected in May and June 2008 and is quoted as the latest available (normally end March 2008). Where a date is known to be significantly different from March 2008, this is shown as a special note. For EU countries, the data relates to mid 2007.

Some information was requested during the assessment on fixed operator interconnection charges for wholesale call termination rates (the actual figures requested were from the incumbent fixed operator for local, single transit and double transit per minute call termination charges). The figures shown in our benchmarking results are from countries where the results could be reasonably compared with equivalent EU27 average results, as reported in the 13<sup>th</sup> Implementation Report. For this reason, only selected countries are shown. The figures expressed on the graphs are comparative to the EU results, using a simple average of the highest and lowest call termination charges for a country, compared to the equivalent average of

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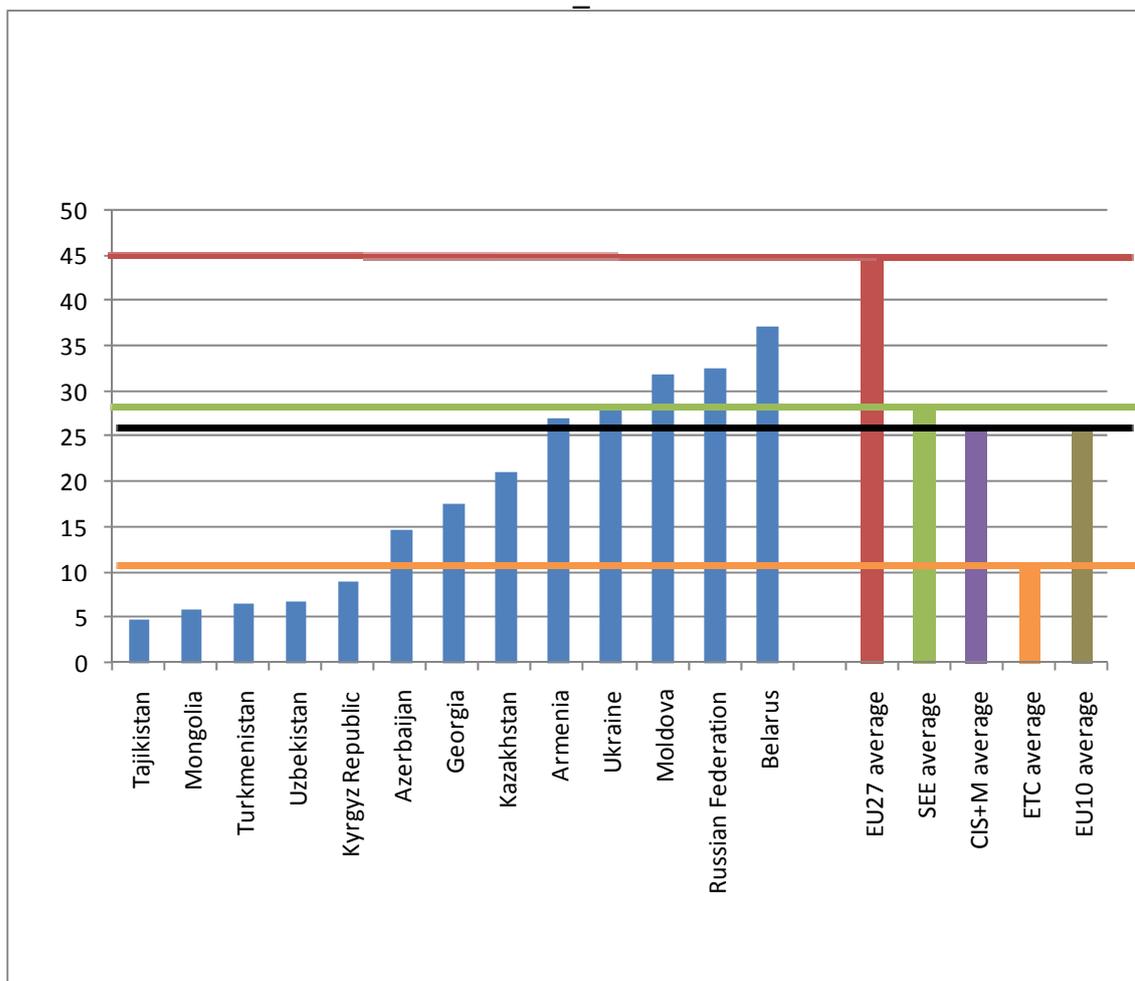
<sup>32</sup> See footnote 22

<sup>33</sup> "Progress Report On The Single European Electronic Communications Market 2007 (13th Report) {COM(2008) 153}".

the EU27 average country result. This is therefore an approximate measure of comparative interconnection charges, giving only a broad indication of the level of interconnection charges that are faced by operators in other regions, in comparison to the EU.

### 1. Fixed Network Penetration

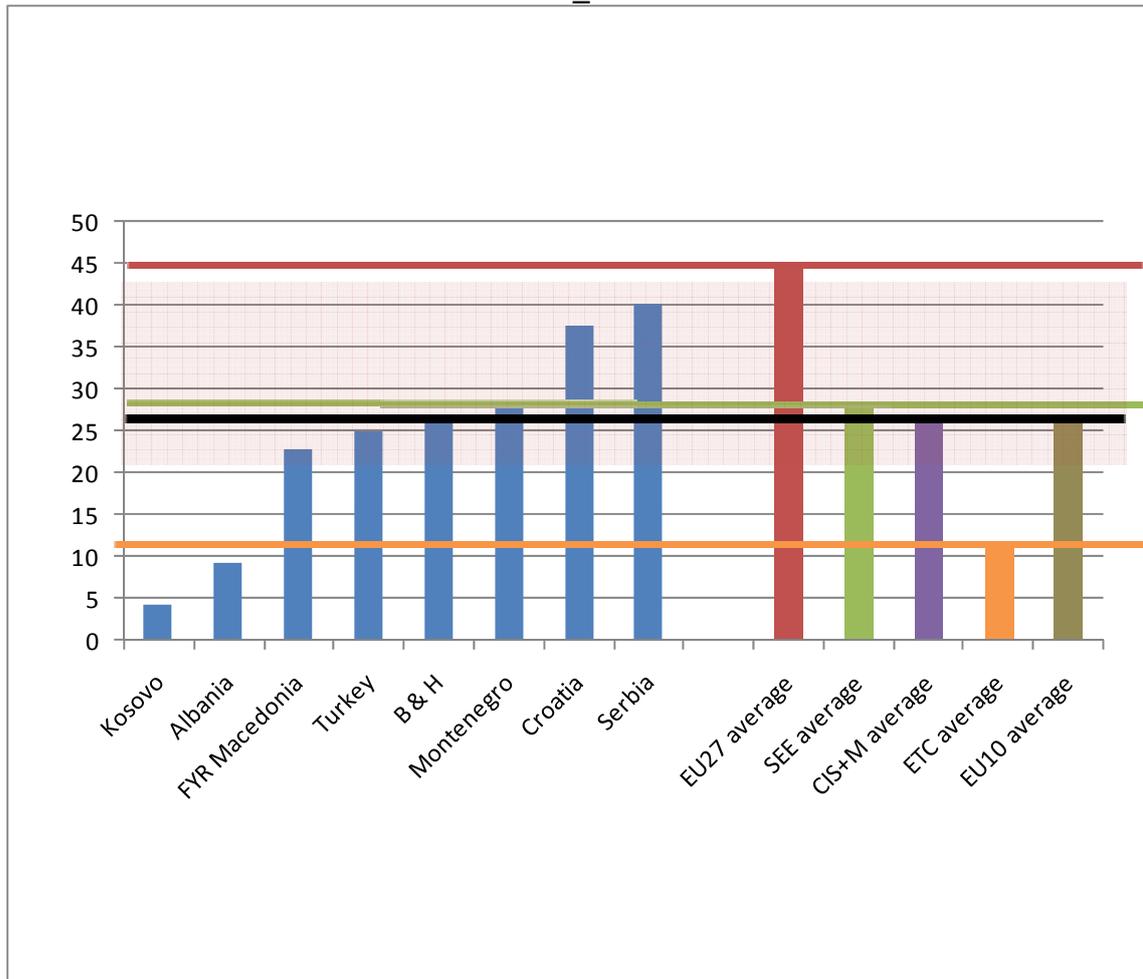
Average fixed network penetration in CIS+M is around the same as the SEE region and the EBRD countries in the EU. All three sub-regional averages are significantly behind the average for the whole of the EU. Average fixed penetration in ETC countries is significantly behind all averages.



Fixed network penetration CIS countries and Mongolia

Note: The shaded area in pale olive represents the span between the highest and the lowest penetration figures in the SEE Region.

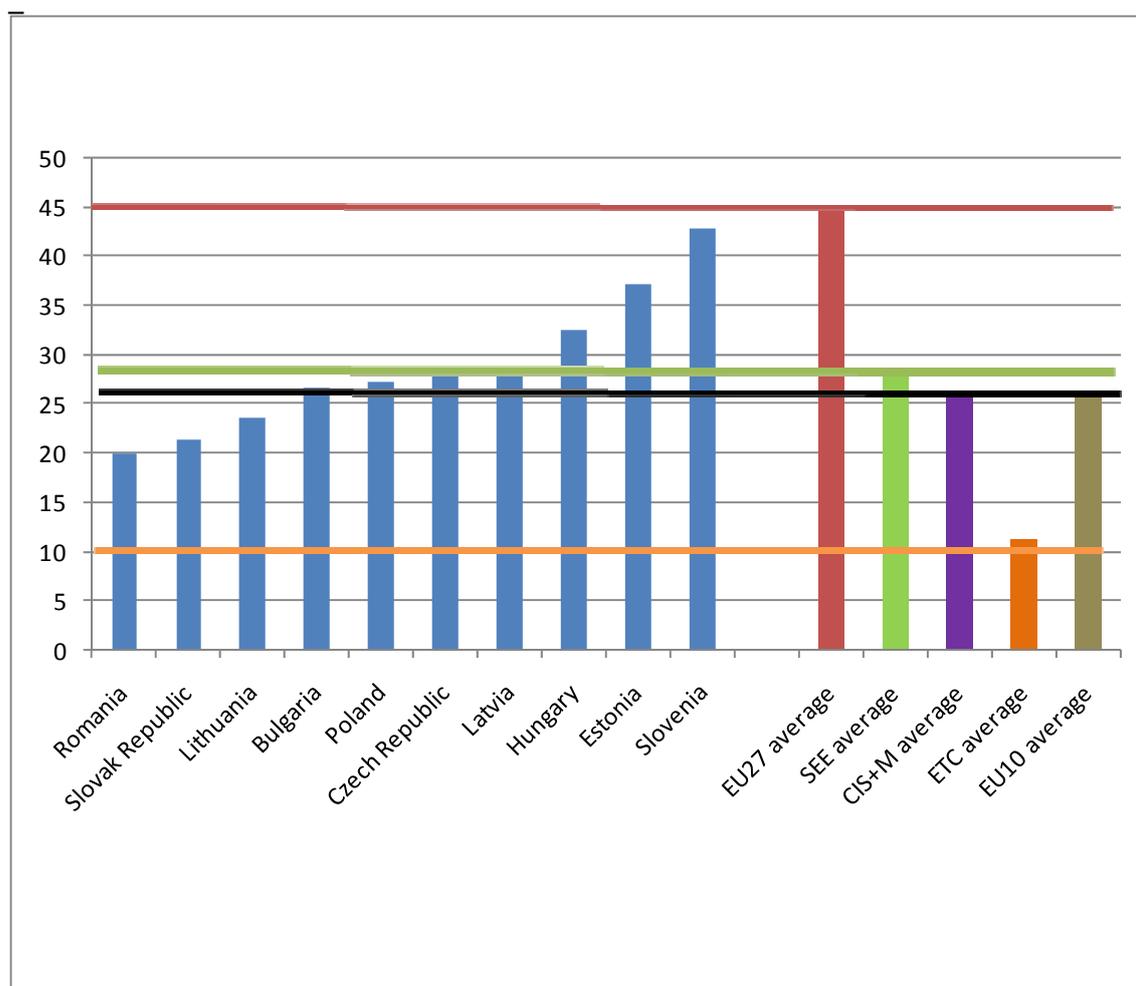
For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.



Fixed network penetration SEE Region

Note: The shaded area in pale red represents the span between the highest and the lowest penetration figures in the EU Member States where the EBRD operates. The penetration figures are from the annual ITU statistics for 2007.

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

Fixed network penetration in EU EBRD Region<sup>34</sup>

The EU countries achieved their relatively high levels of fixed network penetration before the introduction of mobile networks and during their monopoly period (up to 1998), in most cases largely under state control. The average fixed network penetration in EU27 countries is 45 per 100 population. For the EBRD countries of operation that are within the EU, fixed network penetration ranges from 20 to 43 per 100 population.

CIS+M and SEE regions generally failed to achieve average EU levels of fixed network penetration. Only Belarus, Croatia and Serbia, have achieved between 30-40 fixed lines per 100 population. The remaining, where only between 10-30 fixed lines per 100 population was reached, far greater universality with mobile networks under competitive conditions has been achieved than was ever achieved with fixed lines under monopolies.

Universal service policy in EU countries now includes issues such as whether the lack of availability or non-use by a minority of consumers results in social exclusion. This means that, with universality largely achieved, the focus of the market shifts towards consumer issues such as better payment options, and better services for disadvantaged customers (for example disabled users and low income groups).

Where low penetration countries have now started to implement effective universal service policies, such as Mongolia and Russia, the focus has been not only on increasing the penetration of basic services, but also on providing Internet services.

Sub-regional averages on fixed network penetration are as follows:

<sup>34</sup> ITU 2007

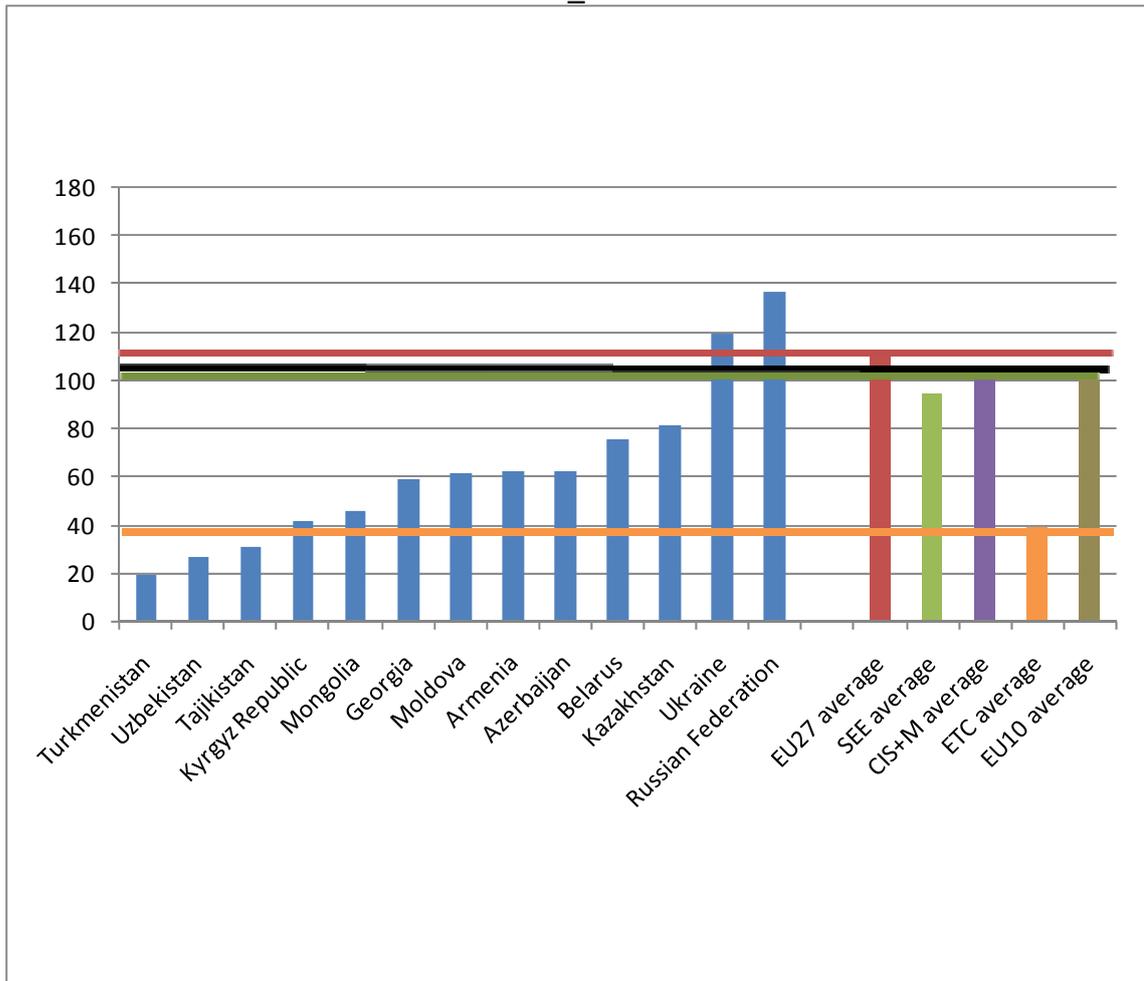
<b>Sub-region</b>	<b>Above their sub-regional averages</b>	<b>Below their sub-regional averages</b>
<b>EBRD countries in EU</b>	Bulgaria, Estonia, Hungary, Slovenia, Latvia, Poland, Czech Republic	Lithuania, Romania, Slovak Republic
<b>South Eastern Europe</b>	Serbia, Croatia	Montenegro, Bosnia & Herzegovina, Macedonia, Albania, Kosovo
<b>CIS plus Mongolia</b>	Belarus, Russia, Ukraine, Armenia, Moldova	Kazakhstan, Georgia, Azerbaijan, Kyrgyz Republic, Uzbekistan, Turkmenistan, Mongolia, Tajikistan

Fixed Network Penetration: Above and below their sub-regional averages

## 2. Mobile service penetration

The rapid penetration of mobile services has been dramatic and is now exceeding fixed line penetration throughout. The highest performers have been Lithuania, Latvia, Estonia, Bulgaria, Czech Republic, Hungary, Slovak Republic, Montenegro, Russia, Ukraine, Croatia and Serbia, which have all achieved penetration rates over 100%. The significantly higher rate (168%) for Montenegro is reported to be a result of the high number of tourists (relative to the county's population) that take out a temporary mobile subscription.

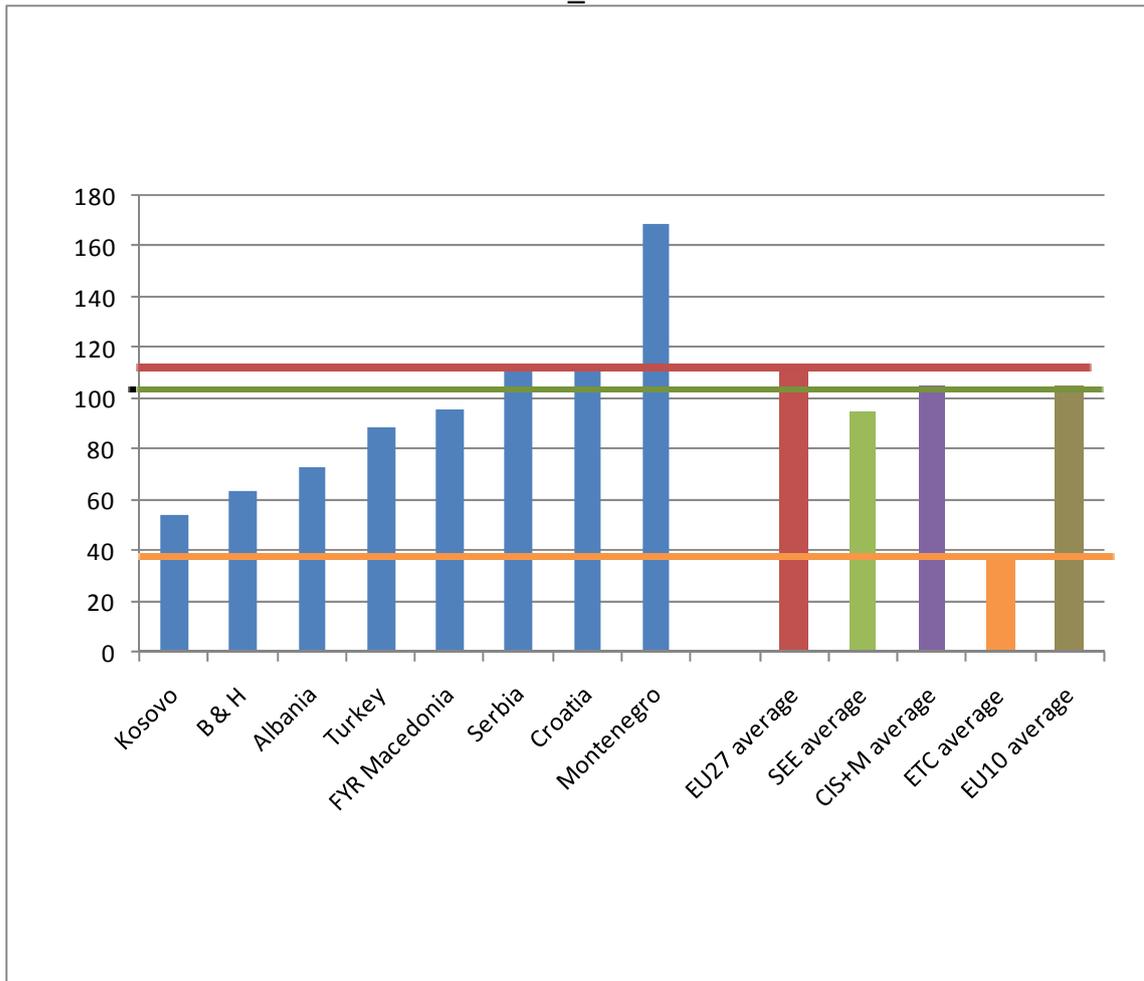
The lowest penetration for mobile can be found in Mongolia, Kyrgyz Republic, Tajikistan, Uzbekistan and Turkmenistan, each at still under 50%. These are the same countries in the CIS+M region that have the lowest fixed penetration. In the SEE Region, the lowest mobile penetration can be found in Kosovo and Albania, areas which also have the lowest fixed network penetration in SEE.



Mobile penetration in CIS countries plus Mongolia

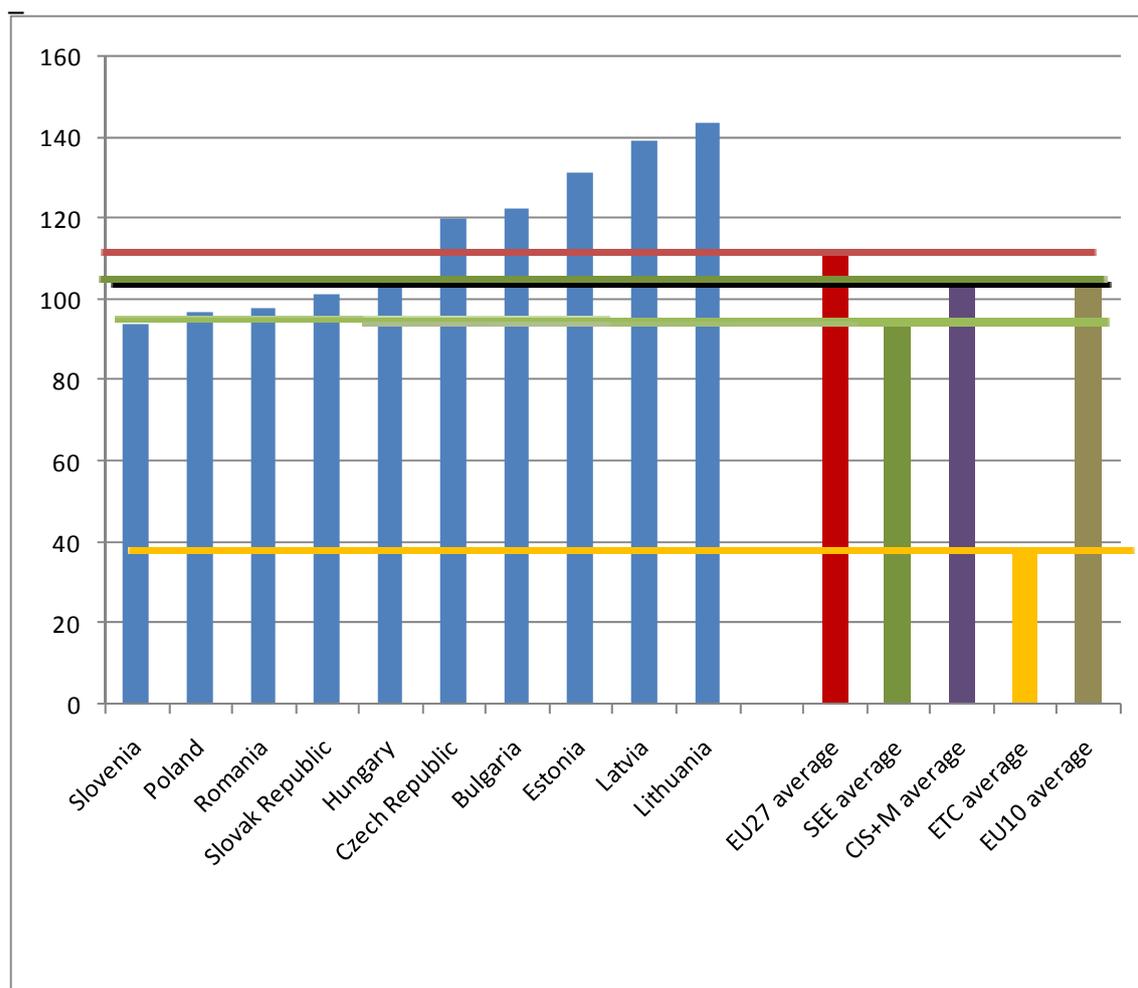
Note: The shaded area in pale olive represents the span between the highest and the lowest penetration figures in the SEE Region.

For details of the definitions of the main terms used in these graphics, please refer to "Explanation of assessment and results" in Section II of this report.



Mobile penetration in SEE Region

Note: The shaded area in pale red represents the span between the highest and the lowest penetration figures in the EU Member States where the EBRD operates.



Mobile penetration in EU EBRD countries

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

Sub-regional averages on mobile penetration are as follows:

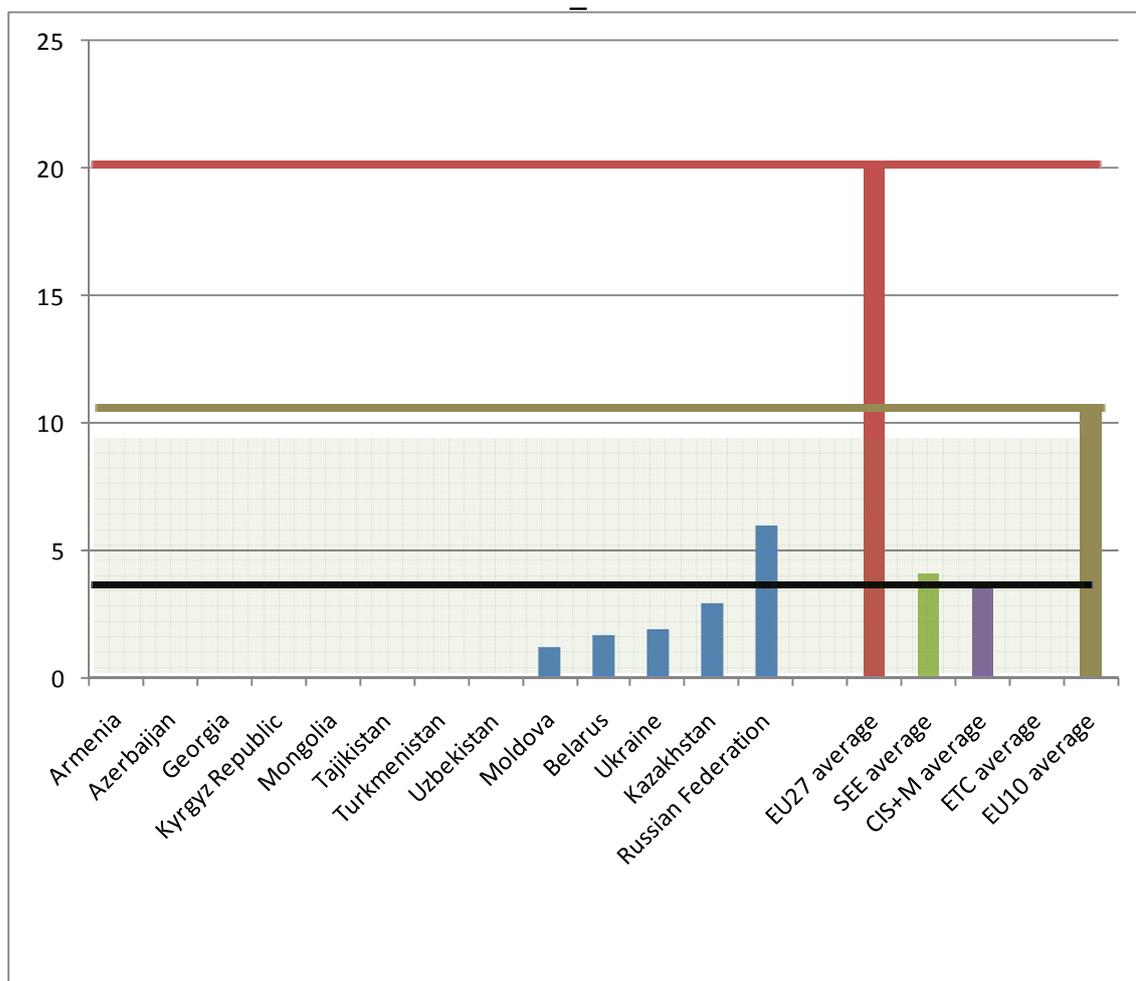
Sub-region	Above their sub-regional averages	Below their sub-regional averages
<b>EBRD countries in EU</b>	Latvia, Lithuania, Estonia, Bulgaria, Czech Republic	Hungary, Poland, Romania, Slovak Republic, Slovenia
<b>South Eastern Europe</b>	Montenegro, Serbia, Croatia, FYR Macedonia	Albania, Bosnia & Herzegovina, Kosovo
<b>CIS plus Mongolia</b>	Ukraine, Russia	Kazakhstan, Belarus, Azerbaijan, Armenia Georgia, Moldova, Azerbaijan, Mongolia, Kyrgyz Republic, Tajikistan, Uzbekistan, Turkmenistan

Mobile Service Penetration: Above and below their sub-regional averages

### 3. Broadband penetration

In the EU countries, where fixed penetration is highest and the competitive safeguard of Local Loop Unbundling is obligatory on SMP operators, broadband has soared. In CIS+M and SEE Regions, with the lowest fixed line penetration started with a major disadvantage here, with Kosovo, Montenegro, Bosnia Herzegovina, Albania, and the whole of the CIS+M region (except Russia) having less than a 5% penetration of Broadband. Russia has achieved only 6%, despite strong investment generally in the sector.

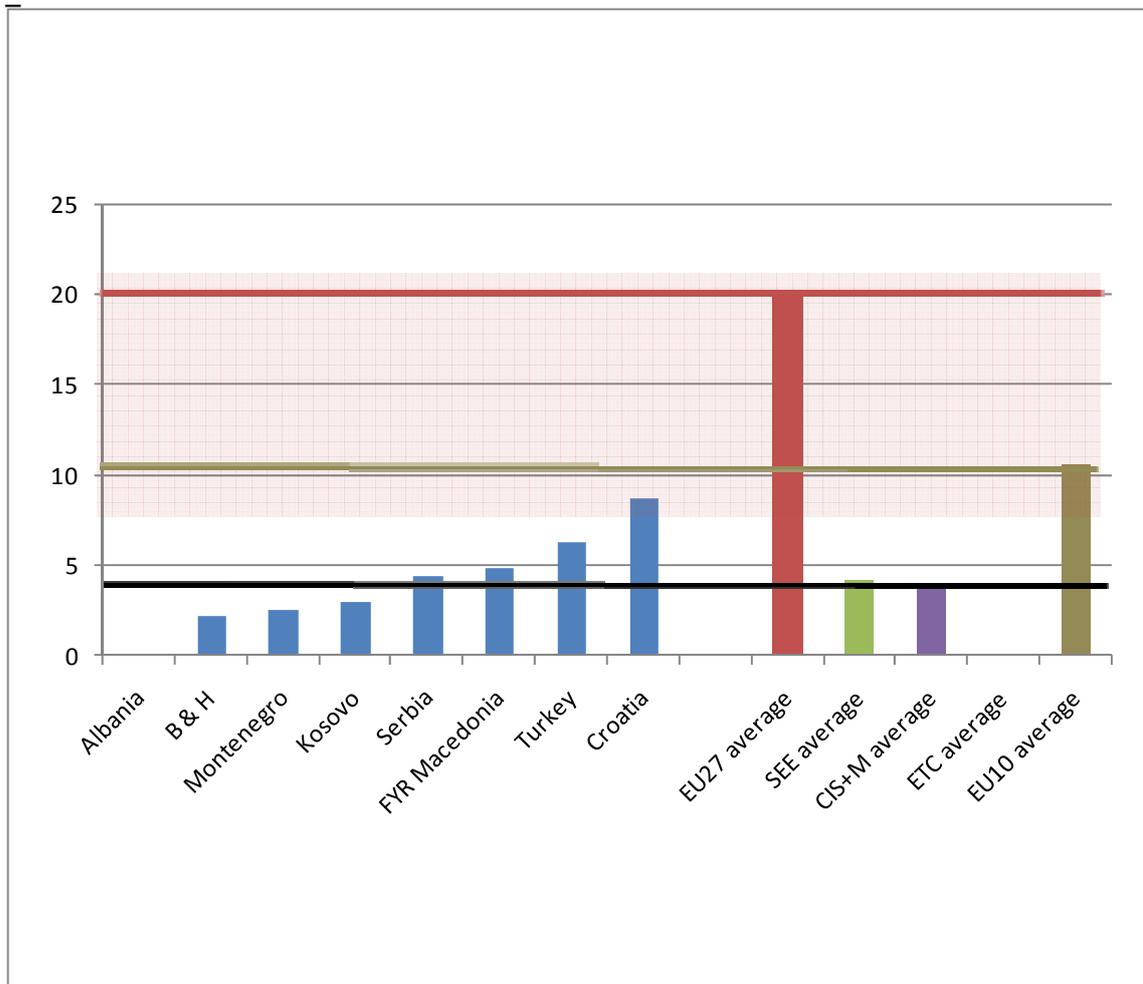
Some countries with less than 1% penetration of broadband, like Kyrgyz Republic, Tajikistan, and Uzbekistan have started to implement the main competitive safeguard of Local Loop Unbundling to help satisfy the high demand for broadband services generally. Kazakhstan has seen significant growth of the incumbent's broadband subscriber base during 2008, but without the competitive safeguard of Local Loop Unbundling, most customers do not have a competitive choice of broadband provider.



Broadband penetration in CIS countries plus Mongolia

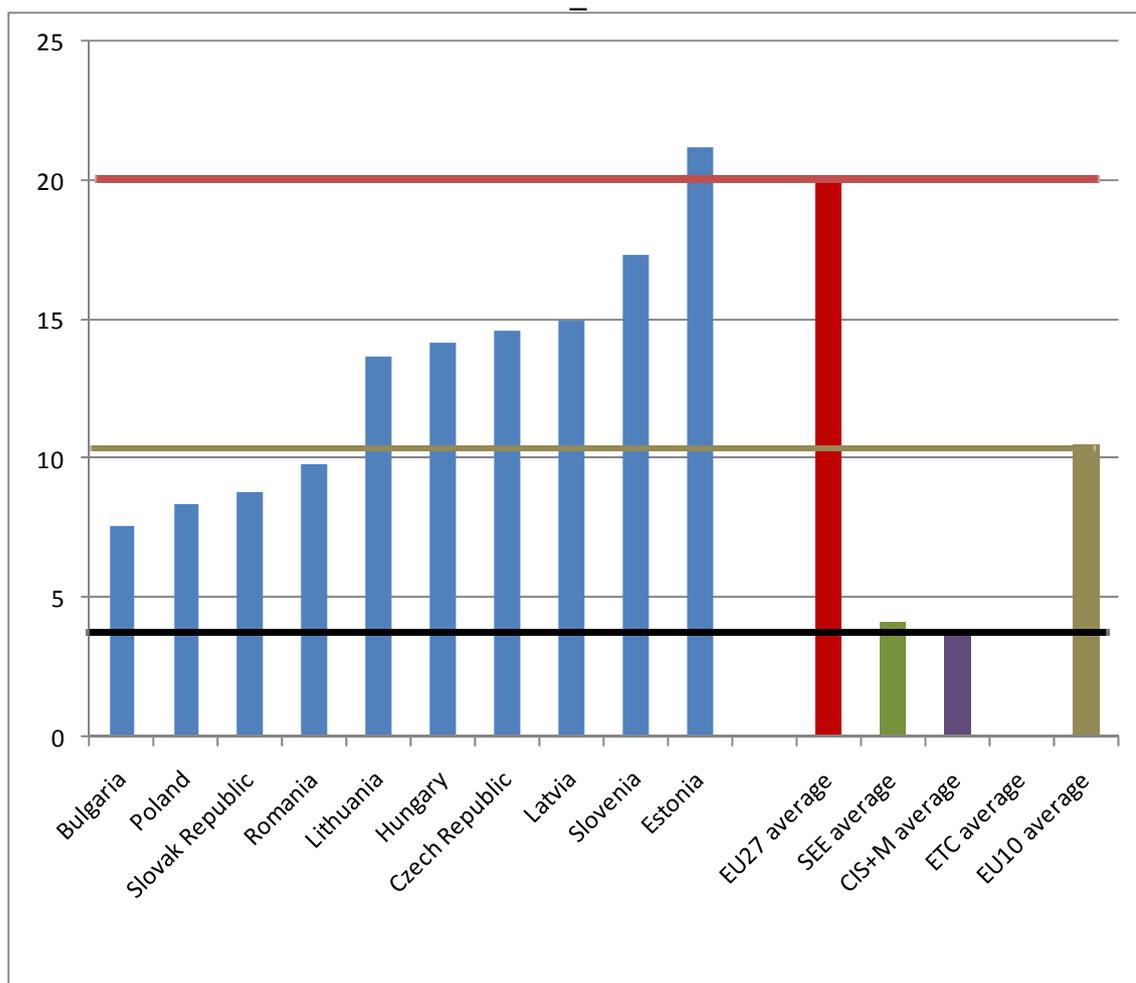
Note: The graph does not show penetration figures under 1%. The shaded area in pale olive represents the span between the highest and the lowest penetration figures in the SEE Region. Kazakhstan figure is end June 2008.

For details of the definitions of the main terms used in these graphics, please refer to "Explanation of assessment and results" in Section II of this report.



Broadband access penetration

Note: The graph does not show penetration figures under 1%. The shaded area in pale red represents the span between the highest and the lowest penetration figures in the EU Member States where the EBRD operates.



Broadband penetration in EU EBRD countries

For details of the definitions of the main terms used in these graphics, please refer to “*Explanation of assessment and results*” in Section II of this report.

Sub-regional averages on broadband penetration are as follows:

Sub-region	Above their sub-regional averages	Below their sub-regional averages
<b>EBRD countries in EU</b>	Estonia, Slovenia, Latvia, Czech Republic, Hungary, Lithuania	Romania, Slovak Republic, Poland, Bulgaria
<b>South Eastern Europe</b>	Croatia, FYR Macedonia, Serbia	Kosovo, Montenegro, Bosnia & Herzegovina, Albania
<b>CIS plus Mongolia</b>	Russia	Kazakhstan, Ukraine, Belarus, Moldova, Uzbekistan, Turkmenistan, Tajikistan, Mongolia, Kyrgyz Republic, Georgia, Azerbaijan, Armenia

Broadband Service Penetration: Above and below their sub-regional averages

#### 4. Interconnection Charges

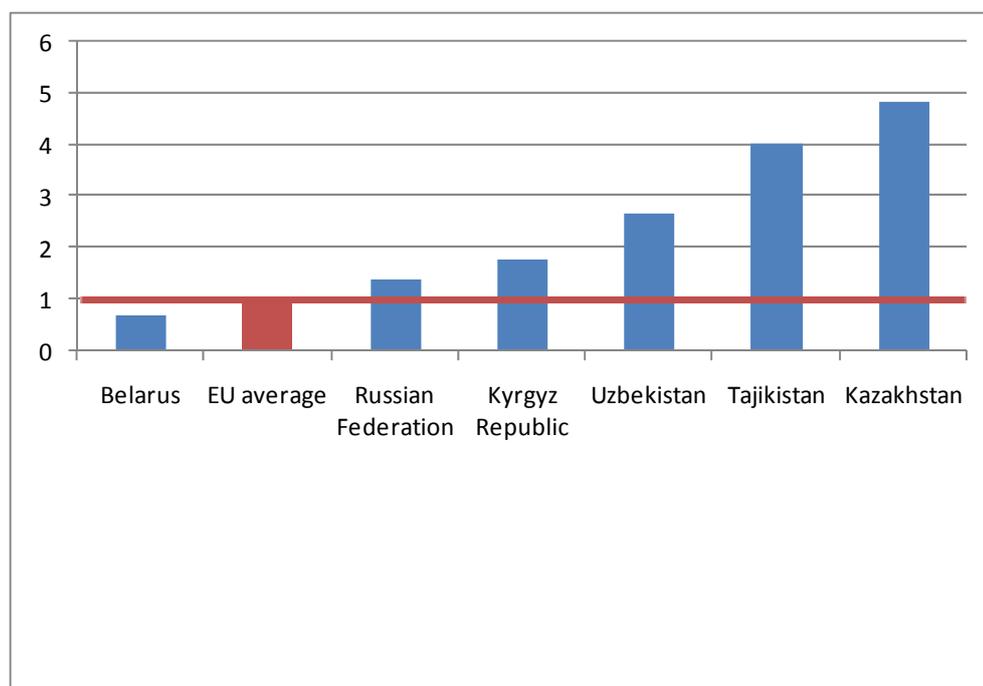
One of the largest operating costs that a competitor faces when entering the telecommunications market is the wholesale interconnection charge that the incumbent fixed network operators make for terminating calls to their customers.

Wholesale interconnection arrangements are normally agreed between operators, but these arrangements become a main target for regulators when it is suspected that the incumbents are

using their dominant position to restrict supply of interconnection capacity, or to charging higher than fair prices. Without regulatory intervention, incumbent operators with significant market power could use interconnection capacity restrictions and high charges to restrict competitors' growth and to apply "margin squeeze".

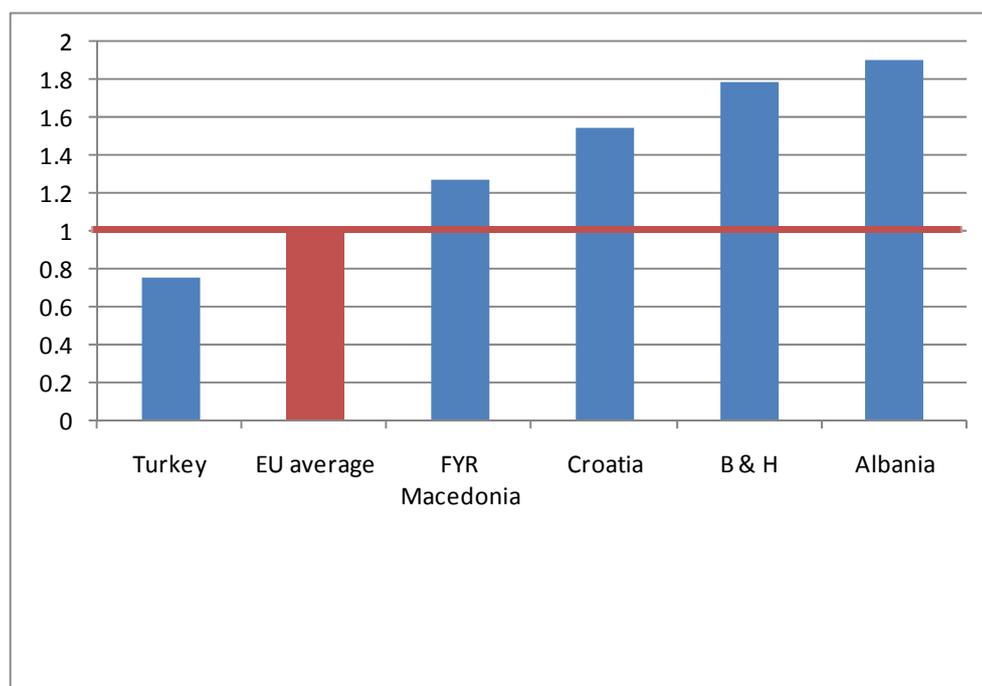
Regulators in the EU have successfully reduced interconnection charges, and made sure that the arrangements for interconnection are fairly applied by incumbents in an open, non-discriminatory manner. EU levels of fixed call termination charges have become the industry benchmark because regulatory action has managed to reduce these towards best practice long-run average incremental costs. This means that new entrants to the market only face modern technology-based incremental costs, and not the higher costs reflecting the historic inefficiencies of the incumbent.

Regulators in CIS+M and SEE have been less successful in applying this important competitive safeguard, as the graphs below illustrate.



Relative fixed network termination charge: (selected CIS countries)

For details of the definitions of the main terms used in these graphics, please refer to "Explanation of assessment and results" in Section II of this report.



Relative fixed network termination charge (selected from the SEE Region)

For details of the definitions of the main terms used in these graphics, please refer to *“Explanation of assessment and results”* in Section II of this report.

The assessment results show that generally, where fixed networks call termination charges are relatively high, competition develops slower than where this is not the case.

Incumbent fixed network operators should not pass on their higher operating costs to competitors in the form of monopolistic call termination charges. Competitors cannot avoid paying interconnection charges, because they have to use the incumbent’s network to terminate calls to the incumbent’s customers.

This is therefore one instrument where CIS+M and SEE sector regulators could make rapid improvements in market conditions for competitors<sup>35</sup>. The EU experience has now given us reliable empirical data on interconnection charges from a many countries, which can be used confidently in other areas as proxies for best practice long-run incremental costs.

<sup>35</sup> In September 2008, the telecommunications regulator in Albania enforced a reduction in call termination charges to align with the EU average

## D. Conclusions and Recommendations

### 1. General Conclusions

The results of the assessment show the following regulatory compliance ratings;

Telecommunications Regulatory Assessment			
Full Compliance	High Compliance	Medium Compliance	Low Compliance
Croatia Czech Republic Estonia FYR Macedonia Hungary Latvia Lithuania Poland Romania Slovak Republic Slovenia	Albania Bosnia & Herzegovina Bulgaria Georgia	Armenia Kosovo Kyrgyz Republic Moldova Mongolia Montenegro Russia Ukraine	Azerbaijan Belarus Serbia Kazakhstan Tajikistan Turkmenistan Uzbekistan

Notes: In the assessment the compliance score is as follows;

*Full Compliance* means an assessment score of 90-100

*High Compliance* means an assessment score of 75-89

*Medium Compliance* means an assessment score of 50-74

*Low Compliance* means an assessment score of under 50

The details of the regulatory assessment model and methodology are given in Annex C.

The benchmarking comparisons show that the three sub-regions have different characteristics.

Sub-region of EBRD countries	Average Fixed Penetration	Mobile Penetration	Broadband Penetration
EBRD countries of operation within EU	26%	105%	11%
South Eastern Europe	28%	94%	4%
CIS and Mongolia	25%	97%	3%

The sub-regional averages for fixed line penetration are well below the EU average of 45%. Mobile penetration is still growing strongly in the CIS+M and SEE sub-regions. The differences between sub-regions is most marked in broadband penetration, which is arguably the indicator that is most influenced by the regulatory environment. Broadband demand is high, but penetration throughout those sub-regions still lags significantly behind the average EU level of 20%.

#### a) Telecommunications policy

The approaches taken to telecommunications sector policy and market regulation still differ between the three sub-regions studied in the assessment, although the overall policy in all regions is towards greater market liberalisation. Competition is now the accepted organising principle in telecommunications markets, even where monopolies still exist in other sectors.

The implementation of the EU telecommunications regulatory framework model in the 27 Member States of the European Union demonstrates how a common approach to market regulation can be successfully applied across different regions, even though they started with significantly different market characteristics. In 1998, when a single EU regulatory framework first came into effect, some of the then Member States already had fully competitive markets with little or no state ownership. Others had sector monopolies before that date with full state ownership. Since then, all EU countries, including the former communist countries of Central and Eastern Europe that have joined the EU since 1998, have adopted a single liberalised framework, allowing easy market entry with relatively effective regulatory safeguards.

Recent studies in the EU (ECTA Report<sup>36</sup>, 2007 London School of Economics Report<sup>37</sup> have shown a strong link between effective regulation of telecommunications markets and investment in the sector, with the consequential benefits to national and regional economic growth and prosperity.

In South Eastern Europe, progress in market liberalisation has been slower than in the EU. Adoption of the EU telecommunications framework in this region is already regarded as a well-defined step towards an improved functioning of the telecommunications markets as well as being an essential part of the EU accession process. The progress that has been made in parts of the region in recent years in the telecommunications sector has been remarkable, given the legacy of relatively low investment and poor economic management from the past.

In the CIS+M region, Georgia has already scored high compliance, followed by Moldova, Mongolia, Ukraine, Russia, Kyrgyz Republic, and Armenia, where some progress has already been made to achieve medium compliance. In the other CIS+M countries, progress toward market liberalisation and better regulation has generally been significantly behind the EU, and is also progressing more slowly than in South Eastern Europe.

The prevailing government policy in the low compliance CIS+M countries (Kazakhstan, Tajikistan, Belarus, Turkmenistan, Uzbekistan, and Azerbaijan) is still one of “managing competition” rather than “liberalisation”. Under managed competition, the government allows competitors to enter under strict conditions and under state-defined terms. Under liberalisation, the government seeks to create a competitive market that is allowed to produce its own results in the form of better consumer choice, range of services and value for money.

The assessment has shown that in the low compliance CIS+M countries, government-driven National Plans are still used to manage markets. Common features of implementation are excessive government control and state ownership. In some CIS+M countries, the concept of independent market regulation in telecommunications is still not accepted, even though the benefits of the approach have been demonstrated time and again in other countries.

b) Government control and regulatory independence.

In the EU countries, the separation of the role of government (as a policy maker), from independent sector regulator and also from the market participants themselves has been a fundamental part of the liberalisation process.

In South Eastern Europe, almost all authorities have established an independent regulatory authority that meets the conditions defined in our assessment model. However, there are still concerns in some of this region about appeals and dispute resolution, where the authority of the regulators is weakened.

In the CIS+M, most countries still do not have regulatory agencies that can meet the independence criteria used in the assessment, either because the ministry is the same body as the regulator, or because the government maintains a direct or indirect control over the regulator’s decisions.

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<sup>36</sup> Richard Cadman, SPC Network, Regulation and Investment in European Telecoms Markets, Prepared for the European Competitive Telecoms Association 05 November 2007.

<sup>37</sup> London Economics In association with Price Waterhouse Coopers. An Assessment of the Regulatory Framework for Electronic Communications – Growth and Investment in the EU e-Communications Sector. Report to European Commission DG Information Society 2006.

However, there are signs in the CIS+M that the old state-driven approach, with its interventionist inspection and control systems, is breaking down and being replaced by forward-looking, more independently-minded regulation. In Russia, although the telecommunications regulatory agency is still entwined with the government ministry, there have been important liberalising interventions with better safeguards to competitive investment in its fast growing telecommunications markets. Other countries, particularly Ukraine, Armenia, Kazakhstan, Tajikistan, Belarus, Turkmenistan, Uzbekistan, and Azerbaijan, have not yet provided enough competitive safeguards.

c) Market Access

In the EU, all countries have successfully implemented an open access policy. This means that no prior approval (only advance notification) is required before an operator launches a telecommunications service, unless scarce resources are used (notably frequency spectrum, numbering ranges, and wayleaves).

In South Eastern Europe, three countries<sup>38</sup> have already established a framework in line with the EU requirements, licensing is still a barrier to entry in the remainder of the region. The provisions for granting rights to scarce resources are generally compliant. Serbia still has the furthest to go.

In the CIS+M, only one country has taken decisive steps toward a framework in line with the EU requirements. Other countries come close by having regimes whereby telephony-related and other activities can be performed on the basis of a license granted through an administrative procedure with low licence fees. However, in other countries there are still special or exclusive rights. A few CIS+M countries still grant licences after political considerations.

d) Operational environment

The assessment looked at the competitive safeguards on operators after they have entered the market. In the EU, there is a requirement on all countries to carry out market reviews that define sub-markets, assess competitiveness (using competition law principles) and decide on appropriate and proportional market remedies where market dominance is found. The EU's 13th Implementation Report raised concerns in some countries where the market review process has not been fully implemented yet, but almost without exception, a full range of competitive safeguards are in place in the EU, including reference interconnection offers, carrier selection and carrier pre-selection, number portability, and local loop unbundling.

Throughout the South Eastern Europe Region, progress has been made with implementing EU-like market reviews, with SMP designation mechanisms, and reference interconnection offers implemented, within the region except Serbia. Carrier selection, carrier pre-selection and number portability are being implemented throughout the SEE Region, but only two countries have so far implemented local loop unbundling.

In CIS+M countries, full market reviews are only just being started, and most SMP designations are still based on a simple market share criterion. Most countries have established some kind of a reference interconnection offer, but these are not always used. The introduction of competitive safeguards such as carrier selection and pre-selection and number portability is missing from most CIS+M countries. Local loop unbundling has made progress in some countries, while others still resist it.

e) Early Transition Counties (ETC)

These countries, where EBRD has launched an initiative to deliver a stronger transition impact, regulatory compliance is shown below alongside the other countries of CIS+M.

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<sup>38</sup> Albania, Croatia and the Former Yugoslav Republic of Macedonia.

<b>Compliance category</b>	<b>ETC countries</b>	<b>Other CIS+M countries</b>
<b>High compliance</b>	Georgia	
<b>Medium compliance</b>	Armenia Kyrgyz Republic Moldova Mongolia	Russia Ukraine
<b>Low compliance</b>	Azerbaijan Uzbekistan Tajikistan	Belarus Kazakhstan Turkmenistan

#### Compliance comparison between ETC and other CIS countries plus Mongolia

As is shown in the compliance table, the one CIS+M country that has high compliance is an ETC country. Also in the category of medium compliance, there is a majority of ETC countries. In the category of low compliance, there is an equal number of ETC and other CIS+M countries.

This seems to suggest that the ETC countries are somewhat further ahead than other CIS+M countries for a liberalised approach for the telecommunications sector. However, the countries in the low compliance category are a reminder that much work remains.

## 2. Implications for Sector Policy and Regulation

The assessment has pinpointed the factors that most contribute to regulatory effectiveness. The factors that correlate highest with overall regulatory compliance are;

- The regulator's institutional capacity, including its independence and the effectiveness of complaint and appeals handling mechanisms
- the operational environment, including SMP designation, implementation of effective competitive safeguards, interconnection and other special access mechanisms like carrier selection and carrier pre-selection, MVNOs, number portability and local loop unbundling.

This is shown in the following table:

	<b>Institutional Capacity</b> (Includes regulatory independence, appeals and dispute mechanisms)	<b>Operational Environment</b> (Includes competitive safeguards and interconnection)	<b>Overall Regulatory Compliance</b>
<b>Slovenia</b>	Full	Full	Full
<b>Lithuania</b>	Full	Full	Full
<b>Latvia</b>	Full	Full	Full
<b>Czech Republic</b>	Full	Full	Full
<b>Hungary</b>	High	Full	Full
<b>Estonia</b>	High	Full	Full
<b>Slovenia</b>	High	Full	Full
<b>Poland</b>	High	Full	Full
<b>Romania</b>	High	Full	Full
<b>FYR Macedonia</b>	Full	High	Full
<b>Croatia</b>	Full	Full	Full
<b>Bulgaria</b>	High	High	High
<b>Bosnia &amp; Herzegovina</b>	Medium	High	High
<b>Albania</b>	Full	Medium	High
<b>Georgia</b>	Medium	High	High
<b>Moldova</b>	Full	Medium	Medium
<b>Montenegro</b>	High	Medium	Medium
<b>Mongolia</b>	Medium	Medium	Medium
<b>Ukraine</b>	High	Low	Medium
<b>Kosovo</b>	Medium	Low	Medium
<b>Kyrgyz Republic</b>	Medium	Medium	Medium
<b>Russia</b>	Low	Medium	Medium
<b>Armenia</b>	Medium	Low	Medium
<b>Kazakhstan</b>	Low	Low	Low
<b>Serbia</b>	Medium	Low	Low
<b>Tajikistan</b>	Low	Low	Low
<b>Belarus</b>	Low	Low	Low
<b>Turkmenistan</b>	Low	Low	Low
<b>Uzbekistan</b>	Low	Low	Low
<b>Azerbaijan</b>	Low	Low	Low

#### Factors contributing most to overall regulatory compliance

The table shows that institutional capacity scores correspond to overall regulatory compliance in just over 50% of the region assessed, and scores for operational environment correspond in the majority of the region.

The conclusion is that by focusing on improving these two important factors, the best chance is stood of improving the effectiveness of their regulation. This is mainly because more independent regulators make better regulatory decisions more suited to the needs of the market. Additionally, when these decisions are implemented in the form of improved competitive safeguards, the overall effectiveness of market regulation is significantly improved.

It has been shown in the EU that regulatory effectiveness leads to efficient telecommunications markets with strong investment and growth. These regulatory principles are already being adopted throughout the SEE Region and the results are now flowing through into improved telecommunications markets. This has happened in a relatively short time, despite this region being outside of the single EU market.

In the CIS+M, progress has been slower. In some CIS+M countries, the remaining straight jacket of government control over the sector has not been sufficiently relaxed yet to produce results in a reasonable time frame.

### 3. Implementing telecommunications policy and regulation

The telecommunications sector is one where technology has produced significant consumer and economic benefits in the last ten years, and will continue for the foreseeable future. For example, mobile networks have overtaken fixed line penetration and now broadband services growth is having a significant impact on every aspect of consumer and business life.

Regulatory progress across EBRD's countries of operation remains variable. The EU countries have already achieved regulatory effectiveness and markets that are operating efficiently. South Eastern Europe is catching up fast, as are some countries of the CIS+M. Other countries are slow to adopt regulatory reform.

Of the seven countries scoring low on regulatory compliance in our assessment, 6 are in the CIS+M (Kazakhstan, Tajikistan, Belarus, Turkmenistan, Uzbekistan, and Azerbaijan) and one (Serbia) is in South Eastern Europe. The common feature of these CIS+M countries in this low category is the lack of a regulator that operates independently of government. In all seven countries designated as low compliance, there is also a lack of implemented competitive safeguards. This means that the incumbent operators in these countries are still able to use their market dominance to discourage the entry and growth of competitors. This position cannot be blamed on different starting points, throughout the rest of the regions incumbent monopolies exist(ed) and a dominant operator is a mostly remains a feature of the market. What has made the difference is the attitude of the government and regulator towards new investment by alternative operators.

To investigate the reasons further, we must examine what is meant by independent sector regulation and why it contributes to a more effective market. Is it possible to achieve results without having a regulatory organisation separately from other interests like government and the incumbent operator?

The job of a market regulator is to create the conditions for market investment that will ensure that consumers can buy and producers can sell under fair, transparent and non-discriminatory terms. If one market participant is significantly stronger than the others, and can make decisions without regard to its customers or competitors (for example by restricting supply or by charging monopolistically high or low prices), then the market cannot be fully effective. Regulators must intervene to prevent this behaviour preferably before it occurs, for example, by formally designating the dominant operators (using established competition principles) and then applying obligations to supply services on open, fair, and non-discriminatory terms.

Therefore, regulators have to make decisions in applying competition principles and setting obligations that are proportionate to the foreseen market conditions. These decisions have to be made after balancing the implications of allowing the status quo (which will generally favour the incumbent) or by imposing remedies that will favour competitiveness, in the interests of consumers. These types of decisions must be made independently of the narrower interests, particularly the interests of owners of incumbent operators.

Where implement reform has not been so swift, the owner of the incumbent telecommunications operators is the government itself, with such governments tending to focus on control, especially on retail tariffs, rather than allowing a competitive market to set efficient prices. The failure of these policies to produce efficient markets provides further evidence that sector regulators should be allowed to make and impose market decisions independently of politically-inspired or ownership-inspired interests.

Regulatory independence has been advanced in most of the region firstly by separating the defined responsibilities of the government from the responsibilities of the sector regulator.

Governments retain the overall responsibility for sector policy (for example, market liberalisation, privatisation, consumer protection, and universal service). This leaves the sector regulator with the day-to-day task of implementing policy through independent action in the market. Where there is an agency for competition (or “anti-monopoly agency”), this agency must work in full co-operation with sector regulators to ensure that the full force in competition law is carried through to the telecommunications sector consistently, as well as its own sector-specific laws.

This assessment has highlighted that where there is low-compliance, the government retains a strong influence over the decisions of the sector regulator, in policy as well as day-to-day involvement in implementation. In some cases this takes the form of direct organisational control, where the ministry responsible for telecommunications also performs the market regulation. In other cases, actions by the regulator are overturned by government, with the results generally being in favour of the interests of the incumbent operator owned by the state.

So, effective market reform requires independent action by sector regulators, who have the detailed involvement with changing market conditions to make sound judgments in fairness to consumers and market investors.

Contrasting exceptions to the rule that independent regulators lead directly to effective competitive markets are Russia and Serbia. In Russia, the sector regulator remains part of the government structure, yet significant progress has been made in recent years with booming investment and growing market competitiveness. In Serbia, the regulator is relatively independent, but only slow progress has been made in the telecommunications market. The explanation of this apparent contradiction lies not in the difference in the independent status of the two regulators, but in their success or failure in introducing adequate competitive safeguards. In Russia, competitors enter the market with defined conditions for access and interconnection, fairly and transparently applied. In Serbia, none of the effective competitive safeguards (as used in the EU framework) have been introduced.

In mobile services where markets were liberalised from the start, then competition has generally flourished, although there are still concerns where ownership is too concentrated, or where dominant mobile operators still abuse their position.

In fixed services, the remaining lack of independent regulation and competitive safeguards, particularly in these six low-compliant CIS+M countries (Kazakhstan, Tajikistan, Belarus, Turkmenistan, Uzbekistan, and Azerbaijan) are cause for growing concern. This continues to restrict the investment in network modernisation, growth and new services. The lack of independent regulation has also allowed the incumbent fixed operator to use its dominance to limit the freedom of its competitors.

In broadband services, where full market access and competitive safeguards are in place, the market has grown spectacularly in recent years. EU countries continue to lead the way, while South Eastern Europe and CIS+M suffer from lower fixed network penetration and lack the implementation of the enabling competitive safeguards that are already in place in the EU.

The majority of Internet access in CIS+M is still via dial-up, with users typically buying pre-paid scratch cards that provide access to Internet Service Providers over traditional phone connections. As the penetration of home and business computers grows rapidly, broadband demand should grow significantly.

Regulators in CIS+M countries will need to allow investors to use all the broadband-enabling technologies for delivery of all types of services (including voice) without undue restriction if this consumer-led demand is to be met.

#### a) Universal Service

In the area of telecommunications universality, Mongolia has shown that it is possible to use state subsidies in a competitively and technologically neutral way to expand the reach of telecommunications services into traditionally un-served areas. This helps to bring the benefits of 21<sup>st</sup> Century technology to a wider population, however remote.

Where legacy soviet-style policies were used for “universal service” there has mostly been a failure in the past to achieve reasonable levels of telecommunications service penetration. One example of the legacy policy still adopted in many CIS+M countries is the very low tariff, protected by legislation, for basic service fixed line rentals and free local calls. These loss-making

incumbent services are typically cross-subsidised by the excess profits made by charging high tariffs on national and international calls. As a further market distortion, some countries also use what is called a “universal service” state subsidy payment to prop up these loss-making services, the aim being to keep basic services affordable.

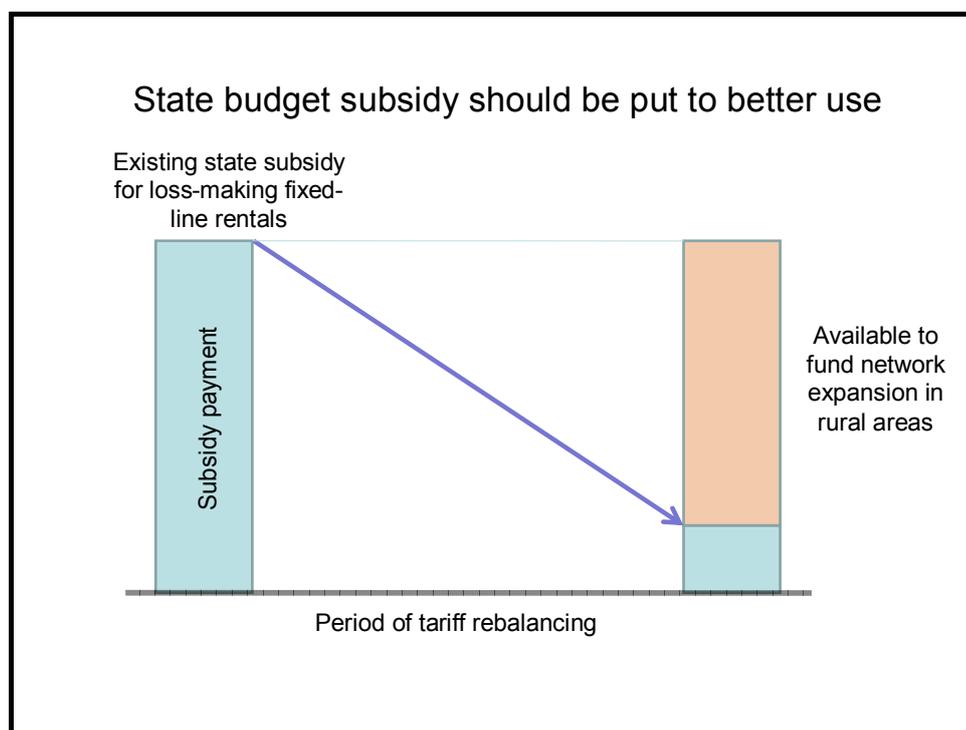
EU countries have largely rebalanced their incumbent operators’ tariffs as a basic correction mechanism to allow fairer conditions for an effective competitive market. The same policy of tariff rebalancing is already having a positive effect on market conditions in the SEE Region.

In the CIS+M, the old soviet-style policy of using state funds to subsidise loss-making telecommunications services had clearly failed to provide universality. As can be seen from the results of the assessment, CIS+M fixed line penetration has traditionally been significantly lower in the CIS+M than in the EU. The continued use of large state subsidy payments, for example in Kazakhstan, is clearly discriminatory, both in terms of technology (the subsidies are only available to fixed line operators) and in terms of competitiveness.

Modern universal service policies are competitively and technologically neutral, so that the market makes the investment decisions and provides for demand-led expansion. Where the state wants to make 21<sup>st</sup> Century technology available in regions where commercial investment is not expected to be made, then the use of state funds can be an effective inducement to telecommunications operators to expand and provide (for example) basic services in remote areas plus Internet access to schools and other public access spaces.

These modern universal access implementation schemes are now being used worldwide, particularly where traditional fixed network penetration is low. A good example is Mongolia (which has the world’s lowest population density). It has used state funds effectively to provide infrastructure to remote areas and has even provided service cost effectively to its significant “herder” population.

Employing regulation to improve the competitive conditions in the market is the first essential step towards greater universality in telecommunications. For example, by rebalancing the basic service tariffs of the incumbent fixed line operator, significantly better conditions are created for more investment. In many CIS+M countries, this fundamental step will not only induce investment in basic services and increase penetration, it will have the multiplying effect of releasing state fund subsidies to provide seed investment for expansion of service into more remote areas.



#### 4. Key Trends

The overall trend in telecommunications markets worldwide has been increasing market liberalisation with corresponding changes in policy and regulation. In parallel, the markets have been fuelled by technological changes. All regions have now adopted the new technologies of digital network infrastructure providing a range of fixed services with widespread mobile penetration and growing broadband usage.

The benefits of these twin forces of market liberalisation and new technology include greater consumer choice, significantly better quality and improved value for money to customers of telecommunications services.

EU countries have already implemented a liberalised regulatory framework for telecommunications. The member states still have dominant market participants, but this is now effectively dealt with using established mechanisms that are proportional to the market conditions and are implemented in a fair and transparent manner.

The important trend in the South Eastern European Region is to adopt these EU regulatory methods, so that the benefits of liberalised telecommunications markets in terms of investment, competitiveness, consumer choice and value for money can be felt even outside EU membership.

In the CIS+M region, there appear to be two competing policies still at work. On the one hand there is the policy of liberalisation. Many are starting to adopt the methods from the EU framework in the form of independent regulators, easier market access and effective competitive safeguards. On the other hand there is a policy of “managed competition”. This takes the form of high government ownership, government controlled regulation and strict requirements for market entry and operation enforced by strong government inspection.

The phenomenal growth of mobile communications over the last decade has been achieved with competitive service provision throughout most of the region (only Kosovo retained a single supplier for any significant period of time). Levels of penetration for mobile services have now passed fixed services penetration throughout the region. In general, in the assessment low fixed network penetration is usually matched with the low mobile penetration, although there are some exceptions. These are also the areas that are now seeing the lowest broadband penetration.

The continuing trend toward full liberalisation, plus the strong market forces that will demand better consumer choice, will continue to drive market investment in telecommunications.

After a decade of mobile investment, the service that will now define the direction of policy and regulatory development, particularly in CIS+M countries, will be broadband. This will renew interest in fixed network investment, with “Next Generation Networks” technologies that will give Internet-Protocol based cost reductions plus flexibility and higher bandwidth from fibre and fixed wireless-based distribution networks.

Market regulation in the EU is already responding with a new forward-looking framework due to be adopted in 2009. The SEE Region is also expected to adopt this new EU framework.

An important policy question remains with the CIS+M countries. With modern universal service policy still needing to be addressed in most of the region, and strong demand in evidence for Internet and broadband services, will the policy of “managed competition” be able to satisfy demand?

During the next few years, Internet usage is set to accelerate in the CIS+M, from a comparatively low base. In most CIS+M countries, only basic slow speed dial-up connections are affordable at the present time. The necessary investment in modern IP-based networks with the required bandwidth and quality to support broadband services has yet to be made. In cases where this investment has started, the lack of regulatory enablers or national capacity restrictions still limits growth and affordability.

The main policy trend in the CIS+M should therefore be to follow best practice from the other sub-regions where higher regulatory effectiveness has led to higher investment, consumer choice and value for money in the telecommunications markets.

The assessment has pointed to the following enablers for CIS+M policy makers;

- A higher degree of independence for the sector regulator, with a corresponding reduction in government influence and control of telecommunications markets
- The introduction of better competitive safeguards for market participants, ensuring that dominant operators do not hinder investment and growth of services. The principle safeguards are;
  - Formal and consultative market review procedures, leading to clear sub-market definitions, proper analysis of competitiveness, assignment of dominance with transparent decisions and implementation of market remedies
  - The implementation of fair and non-discriminatory Reference Interconnection Offers by dominant operators in the market
  - The introduction of carrier selection, carrier pre-selection and number portability so that consumers have an easily exercised choice and procedure to take service from alternative operators
  - The introduction of Local Loop Unbundling under fair, non discriminatory terms so that consumers can choose alternative service providers (especially for broadband) using their existing basic service line.
- The introduction of market access conditions that do not deter investors. The key steps required are to provide the lowest administrative costs of entry for new entrants. Where no scarce resources are utilised, then simple registration procedures or a simple standard multi-service licence should replace the complex system of network or service specific licences with complex state inspection-enforced criteria. Unused frequency spectrum and number ranges should be made available for commercial use.

In the EU and SEE regions, these regulatory methods have become “standardised” so that the market conditions for investors are sufficient to ensure the benefits to consumers of competitive markets.

Where commercial investment is not expected to satisfy demand (for example, in remote regions, or for services that the government wants to make available to special classes of citizens at a low cost, for example Internet access for schools, services for the disabled or low-income users) then state subsidies should be made available (funded by the telecommunications sector or by general taxation as appropriate). Disbursement of these funds should maximise market involvement in decision making, so that there is no discrimination in the use of technologies or particular types of operator.

Policy makers throughout the region should continue to monitor market developments, not only in technology but also in regulatory best practice. The use of results achieved in some areas of the region should be a continuing spur to policy makers and regulators that lag behind. In most aspects of the telecommunication market, the differences between regions that are caused by different geographies and different legacy technologies are disappearing. As the Mongolia case study shows, modern technologies can bring telecommunications services to even the most remote, sparsely populated areas, at reasonable costs.

The speed of policy and regulatory reform in the SEE Region has already accelerated to take advantage of the expanding single EU market with its common liberalised market framework.

The speed at which the consumers in CIS+M countries will be able to access the full benefits of 21<sup>st</sup> Century telecommunications technology will depend largely on the speed of adoption of a more liberalised regulatory framework for the telecommunications market, as recommended in this report.

## V. SUMMARY OF RECOMMENDATIONS

The general conclusion of the assessment is that where there is only low or medium compliance, the most important steps to be taken are to achieve independent sector regulation and to put in place best practice competitive safeguards (especially SMP and interconnection). Other factors such as universal service, market access (including licensing/authorisation) and dispute resolution/appeals mechanisms are important steps, but they appear secondary when considering overall regulatory performance.

The key elements of the required reforms where there is medium and low compliance are;

- Regulatory Independence:

First and foremost, a legal framework must include the objective to establish a regulatory authority that is independent from the operators and reasonably independent from political pressure. In practice, such a legal environment may be in place, and yet the regulator does not necessarily behave in an independent and fair way. Real independence and fairness are difficult to measure in an objective way. However, the regulator has to demonstrate that it makes decisions that are fair, transparent, and non-discriminatory after taking into account the market conditions and by consulting widely.

- Competitive Safeguards:

Competitive safeguards are those measures that are intended to protect new entrants against the anti-competitive practices of incumbent operator(s) with significant market power. Firstly there have to be formal and objective procedures to identify the existence of significant market power. This procedure should ideally be based on formal market definition and analysis according to competition law principles. Once it has been established that the designation procedure is in place, the next requirement is whether the procedure has been carried out whether the SMP operators been set proportionately and effective obligations such as the need to observe non-discrimination and transparency.

In addition, specific implementation (in legal provisions and in practice) of number portability, carrier selection and carrier pre-selection are required.

A proven safeguard is the use of a reference interconnection offer (RIO) that is approved by the regulator and published. This RIO should also apply to competitive activities of the incumbent operator. Similarly, the existence of a reference unbundling offer (RUO) and its actual use in providing services by alternative operators.

Those most in need of reform for making the regulator more independent are Russia, Kazakhstan, Tajikistan, Belarus, Turkmenistan, Uzbekistan, and Azerbaijan.

This group, plus Ukraine, Kosovo, Armenia, and Serbia would benefit most from the introduction of more effective competitive safeguards.

Therefore, the main recommendations resulting from this assessment are;

1. Continue the fast pace of regulatory reform in South Eastern Europe, and apply special attention to Serbia and Kosovo, where the reforms have been slowest.
2. Significantly increase the pace of regulatory reform in the low performing CIS+M countries, particularly Kazakhstan, Tajikistan, Belarus, Turkmenistan, Uzbekistan, and Azerbaijan. The main focus of the needed reforms is regulatory independence and implementing competitive safeguards.
3. Continue reform efforts already well underway in all medium performing countries (particularly Montenegro, Mongolia, Ukraine, Kyrgyz Republic, Armenia and Moldova).
4. Where the dominant fixed network incumbent still charges high call termination charges (and other high wholesale fees to competitors), immediate benefits could be realised by regulatory action. Regulatory powers should be applied to enforce best practice long-run average incremental costs to be used by incumbents, and refer to EU empirical data as reliable benchmarks.
5. CIS+M countries still employing soviet-style "universal service" legacy policies should abandon these. For example:
  - Unbalanced tariff structures (where line rentals and/or local calls are priced well below cost and are cross-subsidised by excess profits made on international and national calls) should be phased out as quickly as possible.

- The continued use state funds to subsidise loss-making services for basic fixed line rentals should be phased out in parallel with tariff rebalancing.
  - Legacy policies related to the use of state subsidies should be replaced in favour of more modern technologically and competitively neutral policies, as demonstrated effectively in Mongolia.
6. In order to monitor the progress of reform, and to direct the focus of technical assistance efforts, the assessment needs to be on a regular basis of at least once per year. The assessment of the EU countries is already effective with widespread and up to date commentaries are easily available. For the SEE Region, where regulatory reform has been most rapid, assessment is already improving as investors focus more on this region. The CIS+M countries need a more regular flow of information in order to perform regulatory assessments equal to the detailed understanding of the workings of the EU telecommunications framework.
  7. For this reason, it is recommended that a formalised tracking system is developed which can feed into regular assessments of telecommunications markets in the 12 CIS states plus Mongolia.