



## REPORT I

# Supply of services in monitoring regulatory and market developments for electronic communications and information society services in Enlargement Countries

September 30, 2008

## Executive Summary

The market for electronic communications in the Western Balkans and Turkey in 2007 was worth €15.8 billions, a 20% increase on the previous year. Growth is expected to continue. The sector represents 3.2% of the Turkish economy and 5.2% of economies of the Western Balkans and average revenues of €150 per capita in Turkey and €200 in the Western Balkans.

The strong growth of the mobile telephony market has continued across the region, matching the penetration rates of the EU-27 and sometimes surpassing them. Mobile now represents almost 60% of the electronic communications sector's revenues, a proportion likely only to increase.

Building on their success with GSM, a number of operators in Croatia, FYROM, Montenegro and Serbia have obtained licences for 3G and some services have been launched, using both UMTS and HSDPA. Their target appears to be 3G LTE.

Although the mobile telephony is de facto the only sector where competition has emerged on any significant scale, most of the national mobile markets remain highly concentrated with two established players typically controlling over 80 – 90 per cent of the market. In 2007, additional market players have entered the mobile markets in FYROM, Montenegro, Serbia and Kosovo contributing to further growth in mobile subscriber numbers and reductions in prices. The costs for consumers are still relatively high.

Mobile number portability is only available in Croatia and being slowly deployed in FYROM and Turkey. National roaming has been used in a few cases to support market entry. Complex and lengthy procedures for granting rights of way and construction permits by local authorities remain a major obstacle for mobile new entrants rolling out their networks. Further action will be required to open markets and to reduce the dominance of a small number of large players.

Fixed networks have been liberalised in most of the countries – data before voice and domestic services before international gateways. Yet there are significant delays between adoption of the intention and effective implementation. Consequently incumbent operators retain strong or very strong positions in most fixed markets. In Serbia, fixed voice telephony services de facto have not been opened to competition, while in Turkey, there is no effective competition in the provision of fixed voice telephony networks and services at the local level.

The provision of fixed broadband Internet access remains limited, with some emerging competition in Croatia and FYROM. Unbundled local loops are not yet proving attractive to alternative operators – there are too few lines, the unbundling too uncertain and the prices too high. Few fixed wireless access services have shown any significant progress. There are some broadband offers with speeds of 4-16 Mbits/second available, but at high prices and consequently few customers.

The implementation of competitive safeguards for fixed voice telephony remains in the early stages and is dependent upon the capacity and expertise of the authorities. National legislation based on the EU 2003 regulatory package has been implemented in four countries: Albania, Croatia, FYROM and Montenegro. With the exception of Croatia that has implemented the necessary starting conditions concerning access, interconnection and universal service, the regulatory regimes are not yet sufficiently prepared for the implementation of the new regulatory framework.

The extent of the changes to legislation and consequently to regulatory systems has been considerable. In view of the political changes and disruptions, at least in the Western Balkans, the lack of stability causes regulatory uncertainty. In some cases, the actions of governments could be construed as interference with or lessening of the status of the regulator. Commitments to strengthen regulators are not being given sufficient priority by governments. This is against a background of the European Commission criticism of public administration, judicial reform and anti-corruption campaigns.

The greatest challenge facing regulators is the task of carrying out market analyses. They must define relevant markets, gather the necessary data, designate operators with SMP and identify appropriate remedies. To date, progress has been extremely limited. There has been continued reliance on the old 25% market share threshold, rather than dominance and too often prescribed lists of remedies have been applied. The result is very inflexible systems.

The evidence from the collection of data for this report suggests that there is a lack of transparency in the operation of regulators, with only limited reporting of market conditions and often with significant delays. They require to improve and to accelerate their data collection procedures and their ability to authenticate the data.

Most countries have established a government body which is in charge of preparing the national strategy on information society development and has some coordinating role at the state and the international level. However, the responsibility for information society policy is not clearly defined. In some countries it is distributed over several institutions or assigned to a body that still has to be established.

Some national statistics institutes have started developing information society statistics, but only for basic indicators. Data on online commercial transactions or on usage of e-government and e-learning services is missing. Computer and Internet usage is below the EU average, although similar to other EU member states of the region. Some countries have large gaps between male and female usage of computers and the Internet.

The EU legal framework for information society services has largely been implemented in national legislation, in particular legal recognition of electronic contracts and electronic signatures and provisions against cybercrime and spam.

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## List of Abbreviations

3G	Third Generation (mobile telecommunications)
ACQ	All Calls Query
ADSL	Asymmetric Digital Subscriber Line
ATM	Asynchronous Transfer Mode
BRAS	Broadband Remote Access Server
BSA	Bitstream Access
BWA	Broadband Wireless Access
CAS	Cost Accounting System
ccTLD	country code Top Level Domain
CDMA	Code Division Multiple Access
CERT	Computer Emergency Response Team
CI	Cullen International
COCOM	Communications Committee
CPI	Consumer Price Index
CPS	Carrier Pre-Selection
CRDB	Centralised Reference Database
CS	Carrier Selection
DD	Digital Dividend
DG	Directorate-General
DSL	Digital Subscriber Line
DSLAM	Digital Subscriber Line Access Multiplexor
DVB-H	Digital Video Broadcasting - Handheld
DVB-T	Digital Video Broadcasting - Terrestrial
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest, Taxes, Deprecation and Amortization
EC	European Commission
ECJ	European Court of Justice
ECS	Electronic Communication Service
ECTA	European Competitive Telecommunications Association
EDC	Embedded Direct Costs
ENISA	European Network and Information Security Agency
ERG	European Regulators Group
ETR	ETSI Technical Report
EU	European Union
ETSI	European Telecommunications Standards Institute
FDC	Fully Distributed Costs
FTTH	Fibre To The Home
FWA	Fixed Wireless Access
Gbps	Gigabit per second
GDP	Gross Domestic Product
GSM	<i>Groupe Speciale Mobile</i> or Global Standard for Mobile communications
IANA	Internet Assigned Numbers Authority
ICANN	Internet Corporation for Assigned Names and Numbers
ICT	Information and Communication Technologies
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronic Engineers
IP	Internet Protocol
IPO	Initial Public Offering
IOT	Inter Operator Tariff
ISDN	Integrated Services Digital Access
ISDN BRA	ISDN – Basic Rate Access (2 x 64 kbits/second)
ISDN PA	ISDN – Primary Access (32 x 64 kbits/second)
ISP	Internet Service Provider
ISO	International Organization for Standardization



ITU	International Telecommunication Union
IXP	Internet Exchange Point
LLU	Local Loop Unbundling
LRIC	Long Run Incremental Cost
LRAIC	Long Run Average Incremental Cost
NCA	National Competition Authority
NRA	National Regulatory Authority
OECD	Organisation for Economic Cooperation and Development
PATS	Public Access Telephone Service
PC	Personal Computer
PLC	Power Line Communications
PMR	Private Mobile Radio
PRS	Premium Rate Service
PSTN	Public Switched Telephone Network
Q1	First quarter of the year
QOR	Query On Release
QOS	Quality Of Service
RIO	Reference Interconnection Offer
RLAN	Radio Local Area Network
ROCE	Return on Capital Employed
RPI	Retail Price Index
RSC	Radio Spectrum Committee
RSPG	Radio Spectrum Policy Group
RUO	Reference Unbundling Offer
SEE	South-East Europe
SLA	Service Level Agreements
SMP	Significant Market Power
SRSG	Special Representative of the United Nations Secretary General to Kosovo
TV	Television
UDRP	Uniform Dispute Resolution Procedure
UMTS	Universal Mobile Telecommunications System
UN	United Nations
UNMIK	United Nations Mission in Kosovo
UNSCR	United Nations Security Council Resolution
URL	Uniform Resource Locator
US	Universal Service
USO	Universal Service Obligation
VAT	Value Added Tax
VOIP	Voice over Internet Protocol
WCDMA	Wideband Code Division Multiple Access
Wi-Fi	Wireless Fidelity (IEEE 802.11)
WiMAX	Worldwide Interoperability for Microwave Access
WIPO	World Intellectual Property Organisation
WLR	Wholesale Line Rental

## I. INTRODUCTION

The significance of the telecommunications sector has long been recognised by economists, not only as an important service sector in its own right, but also as a critical input for the rest of the economy and as the enabling infrastructure for the information society. Over-arching goals for the European Union were set in the i2010 policy framework for a European information society for growth and employment.<sup>1</sup>

Telecommunications policies have come to occupy an important position in the economic development of nations.<sup>2</sup> There is a broad consensus within the OECD and the European Union that these policies should be based on competitive markets and that this is best achieved within a stable but evolving legal framework, with markets supervised by a regulatory authority that is separate from and independent of telecommunications operations.

There has been a pattern of privatisation of operators. State ownership was no longer considered essential for the achievement of national goals and it was recognised as a potential obstacle to fair competition. Privatisation has also provided a welcome source of revenue for the state, rather than state-owned operators demanding funds for investments.

In the European Union, the regulatory environment for the telecommunications or electronic communications sector,<sup>3</sup> has undergone progressive changes for a quarter of a century. This development is characterised by four major phases:

1. The first initiatives saw the liberalisation of the markets for terminals and some telecommunications services, though many remained exclusive to the state. Competition was generally limited to value added services and to services provided to closed user groups within businesses.
2. “Full liberalisation”, which took effect by December 31, 1997, eliminated the remaining special and exclusive rights of the state and state-owned operators.<sup>4</sup> It was characterised by:
  - individual authorisations for public telephony services and for the construction of infrastructure, both fixed and mobile;
  - a prescribed set of asymmetric regulations was imposed on operators with Significant Market Power (SMP), i.e., having 25% or more of a small number of broadly defined markets.

This became known as the “1998 *acquis*”.

3. The “1999 Review” saw the previous legislation repealed and a new set of directives enacted in 2002: Framework, Authorisation, Access, Universal Service, Privacy and Competition. The main changes were:
  - more extensive use of general authorisations, reducing regulatory barriers to market entry. Only activities requiring the use of scarce resources required an individual authorisation.
  - the designation of SMP was brought into line with competition law and its application limited to markets defined on competition law principles, while regulators were given a choice of the remedies to apply to such operators.
  - all electronic communications networks and services were regulated, including broadcasting transmission networks.<sup>5</sup>

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<sup>1</sup> [http://ec.europa.eu/information\\_society/eeurope/i2010/index\\_en.htm](http://ec.europa.eu/information_society/eeurope/i2010/index_en.htm)

<sup>2</sup> <http://www.oecd.org/dataoecd/49/28/40839436.pdf>

<sup>3</sup> The legislation now refers to “electronic communications” to reflect convergence, for example, it applies to broadcasting networks. In this report, the term electronic communications is used when describing aspects that relate specifically to the 2002 regulatory framework. Otherwise, the term telecommunications is used to describe general aspects that do not relate to a specific regulatory framework.

<sup>4</sup> Greece, Ireland, Portugal and Spain had derogations on their introduction.

This became known as the “2003 *acquis*”.<sup>6</sup>

4. In June 2006 the European Commission published a communication on the review of the current regulatory framework.<sup>7</sup> Then, in November 2007, it adopted a series of legislative proposals that are currently being debated in the European Parliament and the Council of Ministers, with significant changes likely to be made.

The most important of the original EC proposals were:<sup>8</sup>

- Creation of the European Electronic Communications Market Authority (EECMA), with roles in market analysis, radio spectrum, numbering and network security.
- Changes to the market analysis procedures, including deadlines and a role for EECMA if a country was late in conducting its market analyses. The Commission’s veto powers to be extended to include remedies, in order to ensure greater harmonisation.
- The inclusion of functional separation as a remedy of “last resort”. This would mean that a vertically integrated operator could be required to place activities related to the wholesale provision of its access network services in an independent operating business unit that would have to work under strict non-discriminatory obligations.
- More flexible radio spectrum management with technology and service neutrality. Spectrum trading would be permitted in bands designated by the EC under a regulatory procedure and, optionally, in additional bands designated by individual Member States.
- Changes to network integrity, data security, privacy and consumer rights.

It is possible that the directives would be adopted in early 2009, with an implementation date in 2010 and would then become the “2010 *acquis*”. However, this is subject to the debates in Parliament and Council, plus any negotiations between the two bodies.

In 2007, the EC under its own authority revoked its 2003 Recommendation of Relevant markets and replaced it with a new and much shorter list (see Table 1).<sup>9</sup> NRAs can additionally use the “three criteria test” to find that one of the markets deleted from the list or some other market required analysis:

1. the presence of high and non-transitory barriers to entry (structural, legal or regulatory);
2. a market structure which does not tend towards effective competition within the relevant time horizon;
3. the insufficiency of competition law alone adequately to address the market failure(s)

In doing so they must inform the EC and obtain consent for any market definition.

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<sup>5</sup> However, the content of services delivered over those networks was excluded. See, for example, Directive 2007/65/EC amending Council Directive 89/552/EEC concerning the pursuit of television broadcasting activities.

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32007L0065:EN:NOT>

<sup>6</sup> This framework is also referred to as the “2002 *acquis*”. The directives were adopted in 2002 and became effective in member states in July 2003. Because the widely accepted term is the “1998 *acquis*”, referring to the year when the directives became effective, it is consistent to use the term “2003 *acquis*”. However, some member states were late in their implementation and the new member states did not have to apply the directives until their accession.

<sup>7</sup> COM(2007) 696 final.

<sup>8</sup> [http://ec.europa.eu/information\\_society/policy/ecomm/library/proposals/index\\_en.htm](http://ec.europa.eu/information_society/policy/ecomm/library/proposals/index_en.htm)

<sup>9</sup> Commission recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation (2007/879/EC).

[http://ec.europa.eu/information\\_society/policy/ecomm/doc/library/proposals/879/l\\_34420071228en00650069.pdf](http://ec.europa.eu/information_society/policy/ecomm/doc/library/proposals/879/l_34420071228en00650069.pdf)

See also the explanatory note:

[http://ec.europa.eu/information\\_society/policy/ecomm/doc/library/proposals/sec2007\\_1483\\_final.pdf](http://ec.europa.eu/information_society/policy/ecomm/doc/library/proposals/sec2007_1483_final.pdf)

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2003 Recommendation		2007 Recommendation		Comment
1	Access to the public telephone network at a fixed location for residential customers	1	Access to the public telephone network at a fixed location for residential and non-residential customers	Combines old markets 1 and 2.
2	Access to the public telephone network at a fixed location for non-residential customers			
3	Publicly available local and/or national telephone services provided at a fixed location for residential customers			deleted
4	Publicly available international telephone services provided at a fixed location for residential customers			deleted
5	Publicly available local and/or national telephone services provided at a fixed location for non-residential customers			deleted
6	Publicly available international telephone services provided at a fixed location for non-residential customers			deleted
7	The minimum set of leased lines			deleted
8	Call origination on the public telephone network provided at a fixed location	2	Call origination on the public telephone network provided at a fixed location	unchanged
9	Call termination on individual public telephone networks provided at a fixed location	3	Call termination on individual public telephone networks provided at a fixed location	unchanged
10	Transit services in the fixed public telephone network			deleted
11	Wholesale unbundled access (including shared access) to metallic loops and sub-loops for the purpose of providing broadband and voice services	4	Wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location	Reference to metallic loops removed to permit the inclusion fibre loops.
12	Wholesale broadband access	5	Wholesale broadband access	Non-physical or virtual network access (e.g., bit-stream).
13	Wholesale terminating segments of leased lines	6	Wholesale terminating segments of leased lines, irrespective of the technology used to provide leased or dedicated capacity	Made technology neutral.
14	Wholesale trunk segments of leased lines			deleted
15	Access and call origination on public mobile telephone networks			deleted
16	Voice call termination on individual mobile networks	7	Voice call termination on individual mobile networks	unchanged
17	The wholesale national market for international roaming on public mobile networks			deleted
18	Broadcasting transmission services, to deliver broadcast content to end-users			deleted

Table 1 - List of relevant markets

The EU adopted the Roaming Regulation in 2007.<sup>10</sup> While this is now part of the *acquis communautaire*, its application outside member states is complicated by the need for reciprocal agreements amongst operators.

The EU started to address information society issues around 1990. In the beginning, the legislative initiatives focussed on completing the internal market by harmonising national legislations, for example by the Television without Frontiers Directive<sup>11</sup> (1989) and the Data Protection Directive<sup>12</sup> (adopted in 1995, but the Commission published its first draft in 1990).

At a special meeting in March 2000 the European Council adopted the Lisbon Strategy, setting a new strategic goal to gain economic growth and better jobs by becoming “the most competitive and dynamic knowledge-based economy in the world”.<sup>13</sup> Creating “an information society for all” became one of the main means to prepare this dynamic knowledge-based economy. The information society aspects of the Lisbon Strategy were addressed in more detail by the eEurope 2002 and 2005 Action Plans. In June 2005 eEurope was replaced by the i2010 Strategy, which is the current information society policy framework.<sup>14</sup> The eSEEurope Initiative<sup>15</sup> extends the EU’s related activities to the SEE countries.

The Electronic Commerce Directive<sup>16</sup> adopted in 2000 ensures that Member States legally recognise electronic contracts. It also grants providers of information society services free market access and established rules on advertising. The directive’s rules on liability provide a safer legal environment for Internet service providers, because they limit the providers’ liability for infringements by their subscribers or users. Some of the provisions of the E-Commerce Directive, in particular on transparency of online offers, have been preceded by the Directive<sup>17</sup> on the protection of consumers in respect of distance contracts.

The Electronic Signatures Directive<sup>18</sup> adopted in 1999 established the legal framework for electronic signatures that are legally equal to handwritten signatures. Certification-service providers must not be subject to prior authorisation. Member States must establish a supervision system for those providers who issue qualified certificates. Regulatory development has been supported by monitoring the progress in the national markets. Each year the European Commission publishes an in-depth report on the implementation of the electronic communications regulatory framework in the Member States. The thirteenth report was adopted by the Commission in March 2008.<sup>19</sup> These reports have examined major developments in the market and give an assessment of the implementation of the regulatory framework.

Further coordination is provided by a number of bodies where the EC and member states meet to discuss implementation and future policies:<sup>20</sup>

- Communications Committee (COCOM)
- European Regulators Group (ERG)

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<sup>10</sup> Regulation (EC) No 717/2007 of the European Parliament and of the Council of 27 June 2007 on roaming on public mobile telephone networks within the Community and amending Directive 2002/21/EC.

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:171:0032:0040:EN:PDF>

<sup>11</sup> Council Directive 89/552/EEC on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the pursuit of television broadcasting activities.

<sup>12</sup> Directive 95/46/EC of the European Parliament and of the Council of October 24, 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data.

<sup>13</sup> See these Council conclusions and later amendments at [http://ec.europa.eu/growthandjobs/european-councils/index\\_en.htm](http://ec.europa.eu/growthandjobs/european-councils/index_en.htm).

<sup>14</sup> See [http://ec.europa.eu/information\\_society/eeurope/i2010/index\\_en.htm](http://ec.europa.eu/information_society/eeurope/i2010/index_en.htm).

<sup>15</sup> See <http://www.eeseinitiative.org/>.

<sup>16</sup> Directive 2000/31/EC of the European Parliament and of the Council of June 8, 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce).

<sup>17</sup> Directive 97/7/EC of the European Parliament and of the Council of May 20, 1997 on the protection of consumers in respect of distance contracts.

<sup>18</sup> Directive 1999/93/EC of the European Parliament and of the Council of December 13, 1999 on a Community framework for electronic signatures.

<sup>19</sup> COM(2008) 153 final.

<sup>20</sup> <http://circa.europa.eu/Public/irc/infso/Home/main>

- Radio Spectrum Committee (RSC)
- Radio Spectrum Policy Group (RSPG)

Regulatory development was compressed into a much shorter period for the ten Member States that joined the EU on May 1, 2004, and also for Bulgaria and Romania that joined on January 1, 2007. While all negotiated their membership based on the 1998 *acquis*, the EU was in the process of replacing these with new directives which candidate countries had to transpose before they became member states.

As part of the preparation for EU enlargement, monitoring of their telecommunication markets in South-East Europe has been performed for several years. Reports, similar to those for the EU Member States, were prepared for the period 2005 to 2007.

"Monitoring regulatory and market developments for electronic communications and information society services in enlargement countries" is a three-year project funded by the European Commission Directorate General for Information Society and Media and performed by Cullen International. The project covers South-East European entities that are potential members of the European Union, either in the short or medium term.

The primary objective of the project is to assist the European Commission and the authorities in the entities in monitoring the progress made towards compliance with the EU rules for electronic communications and information society services, together with their convergence with the EU internal market. This is the first of four reports, one every nine months in the period from 2008 to 2010.

## II. PARTICIPATING ENTITIES

The entities covered by this project are set out in Table 2 and shown in Figure 1. The table lists them in the order in which they will be presented in the reports: the three candidates followed by the potential candidate countries. It also introduces the two letter codes that will be used to identify entities on graphs and charts. These are based on the ISO 3166-1 codes<sup>21</sup> that are used for Internet domain names assigned by Internet Assigned Numbers Authority (IANA).

Country	Code	Comments
Croatia	HR	-
The former Yugoslav Republic of Macedonia (FYROM)	MK	The constitutional name is the Republic of Macedonia. However, it is not recognised under this name by some countries. The EU refers to it using the provisional reference under which it was admitted to the United Nations: "the Former Yugoslav Republic of Macedonia". This does not prejudice the outcome of the negotiations on the name of the country that are underway. The country code "MK" is used by ISO and some other organisations.
Turkey	TR	-
Albania	AL	-
Bosnia & Herzegovina	BA	Bosnia & Herzegovina (BiH) comprises two parts: <ul style="list-style-type: none"> <li>• The Federation of Bosnia &amp; Herzegovina</li> <li>• Republika Srpska</li> </ul> A separate federal district of Brčko belongs to both. In the monitoring reports, Bosnia & Herzegovina is presented as a single geographic unit because its constituent parts have a common legislative and institutional framework for electronic communications and information society services, established at the entity level. The report treats separately the three incumbent operators that, while now operating nationally, were initially established in different parts of the entity: BH Telecom d.d Sarajevo (BA-bh) based in Sarajevo, the Federation of Bosnia & Herzegovina Hrvatske Telekomunikacije d.o.o. Mostar (BA-ht) based in Mostar, the Federation of Bosnia & Herzegovina

<sup>21</sup> [http://www.iso.org/iso/country\\_codes](http://www.iso.org/iso/country_codes)

Country	Code	Comments
		Telekom Srpske a.d. Banja Luka (BA-ts) based in Banja Luka, Republika Srpska
Montenegro	ME <sup>22</sup>	Montenegro has been an independent country since June 3, 2006. It separated from Serbia & Montenegro following a referendum held on May 21, 2006.
Serbia	RS	-
Kosovo (under UNSCR 1244)	XK	Kosovo is a territory under interim international administration. Under United Nations Security Council Resolution 1244, the administration of Kosovo has been carried out by the UN without the involvement of the government of Serbia. <sup>23</sup> On February 17, 2008 the Kosovo Assembly, elected in December 2007, adopted a resolution declaring Kosovo to be independent. <sup>24</sup> On February 18, 2008 the EU Council took note of that resolution stating that member states would decide, in accordance with their national practices and international law, on their relations with Kosovo. <sup>25</sup> Kosovo does not have an officially assigned ISO code. However, the structure allows for so-called user assigned codes. The code "XK" is used by Eurostat and some other organisations <sup>26</sup> .

Table 2 - Entities covered in the report



Figure 1 - Map of South-East Europe

Since 1999 the European Union has engaged South-East Europe in a series of negotiations, agreements and partnerships, gradually drawing the entities closer to membership. The result has been three categories of South-East European countries: EU member states, candidates and potential candidates.

Slovenia joined the EU in 2004, followed by Bulgaria and Romania in 2007.<sup>27</sup>

<sup>22</sup> <http://www.iana.org/reports/2007/me-report-11sep2007.html>

<sup>23</sup> [http://daccess-ods.un.org/access.nsf/Get?Open&DS=S/RES/1244%20\(1999\)&Lang=E&Area=UNDOC](http://daccess-ods.un.org/access.nsf/Get?Open&DS=S/RES/1244%20(1999)&Lang=E&Area=UNDOC)

<sup>24</sup> <http://www.assembly-kosova.org/?krye=home&lang=en>

<sup>25</sup> [http://www.consilium.europa.eu/ueDocs/cms\\_Data/docs/pressdata/en/gena/98818.pdf](http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressdata/en/gena/98818.pdf)

<sup>26</sup> See, for example, Eurostat Pocketbook on candidate and potential candidate countries, 2008 edition, March 18, 2008. [http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-PF-08-001/EN/KS-PF-08-001-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-PF-08-001/EN/KS-PF-08-001-EN.PDF)

The previous monitoring reports documented the progress made by Bulgaria and Romania towards implementation of the telecommunications regulatory package. As member states, they were included in the 13<sup>th</sup> Implementation Report by the European Commission and have also been subject to infringement proceedings for failures and errors in transposition and implementation. They are no longer included in the monitoring exercise in South-East Europe.

The monitoring exercise covers the candidates and potential candidates for EU membership.

At present, there are three candidates: Croatia, Turkey and FYROM. Accession negotiations with the first two started on October 3, 2005. FYROM became a candidate country in December 2005 but accession negotiations have not yet begun. The three candidates have gone through a range of agreements as they have moved closer to membership.

This year each candidate has signed an Accession Partnership agreement with the EU:

- Croatia: [2008/119/EC](#)<sup>28</sup>
- FYROM: [2008/212/EC](#)<sup>29</sup>
- Turkey: [2008/257/EC](#)<sup>30</sup>

Chapters 10 of these partnerships bind them:

- To complete “alignment” of their legislation on electronic communications, electronic signatures, information security and media with the EU regulatory package;
- To ensure sufficient capacity to enforce and to provide a track record of enforcement of obligations on operators with SMP and the rights of new entrants;
- To ensure regulatory independence, guarding against “undue” political influence.

The five potential candidates have signed European Partnership agreements with the EU, renewed in 2007 and 2008:

- Albania: [2008/210/EC](#)<sup>31</sup>
- Bosnia & Herzegovina: [2008/211/EC](#)<sup>32</sup>
- Montenegro: [2007/49/EC](#)<sup>33</sup>
- Serbia: [2008/213/EC](#)<sup>34</sup>
- Kosovo: [2008/213/EC](#)<sup>35</sup>

They have undertaken to:

- align their telecommunications legislation with that of the EU;
- achieve competitive markets; and

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<sup>27</sup> Treaty concerning the accession of the Republic of Bulgaria and Romania to the European Union (2005) Official Journal L 157 of 21 June 2005. <http://eur-lex.europa.eu/JOHtml.do?uri=OJ:L:2005:157:SOM:EN:HTML>

<sup>28</sup> Previous agreements are: [2006/145/EC](#), [2005/40/EC](#) and [2004/648/EC](#).

<sup>29</sup> Previous agreements are: [2006/57/EC](#), [2004/518/EC](#) and [2001/0049 \(ACV\)](#).

<sup>30</sup> Previous agreements are: [2006/35/EC](#), [2003/398/EC](#) and [2001/235/EC](#).

<sup>31</sup> Previous agreements are: [8164/06](#), [8154/06](#), [2006/54/EC](#) and [2004/519/EC](#).

<sup>32</sup> Previous agreements are: [2006/55/EC](#) and [2004/515/EC](#).

<sup>33</sup> Previous agreements are: [2006/56/EC](#) and [2004/520/EC](#).

<sup>34</sup> Previous agreements are: [2006/56/EC](#) and [2004/520/EC](#).

<sup>35</sup> Previous agreements are: [2006/56/EC](#) and [2004/520/EC](#), included as part of the agreement with Serbia.



- strengthen the expertise of their NRAs.

They are not yet required to provide a track record of enforcement.

The EU's policy framework for the potential candidate countries in Western Balkans is known as the Stabilisation and Association Process (SAP).<sup>36</sup> The central element of the SAP is the conclusion of individual Stabilisation and Association Agreements (SAAs), which establish mutual rights and obligations. Effective implementation of the SAAs is a prerequisite for any further assessment by the EU of the country's prospects of accession.

The SAAs have been signed with four potential candidate countries: with Albania in June 2006, with Montenegro in October 2007, with Serbia in April 2008 and with Bosnia and Herzegovina in June 2008. Before their entry into force, SAAs must be ratified by all the EU Member States.

As part of the process of the agreement and the movement towards membership, annual progress reports are produced (see Table 3).

Country	2007	2006	2005
Croatia	<a href="#">SEC(2007) 1431</a>	<a href="#">SEC(2006) 1385</a>	<a href="#">SEC(2005) 1424</a>
FYROM	<a href="#">SEC(2007) 1432</a>	<a href="#">SEC(2006)1387</a>	-
Turkey	<a href="#">SEC(2007) 1436</a>	<a href="#">SEC(2006) 1390</a>	<a href="#">SEC(2005) 1426</a>
Albania	<a href="#">SEC(2007) 1429</a>	<a href="#">SEC(2006) 1383</a>	<a href="#">SEC(2005) 1421</a>
Bosnia & Herzegovina	<a href="#">SEC(2007) 1434</a>	<a href="#">SEC(2006) 1384</a>	<a href="#">SEC(2005) 1422</a>
Montenegro	<a href="#">SEC(2007) 1434</a>	<a href="#">SEC(2006) 1389</a> , <a href="#">SEC (2006) 1386</a>	<a href="#">SEC(2005) 1428</a>
Serbia	<a href="#">SEC(2007) 1435</a>	<a href="#">SEC(2006) 1389</a> , <a href="#">SEC (2006) 1386</a>	<a href="#">SEC(2005) 1428</a>
Kosovo	<a href="#">SEC(2007) 1433</a>	-	<a href="#">SEC(2005) 1423</a>

Table 3 - Progress reports on candidate and potential candidate countries

The EC provides assistance to countries in the Western Balkans to support their transition to membership of the EU through the Community Assistance for Reconstruction, Development and Stability in the Balkans (CARDS) programme.<sup>37</sup> Turkey, and as of 2004 Croatia, have also been eligible to Programme of Community aid to the countries of Central and Eastern Europe [Phare].<sup>38</sup> For the period from 2007 to 2013, both instruments were replaced by the Instrument for Pre-Accession (IPA).<sup>39</sup>

Since its launch in 1999, The Stability Pact for South Eastern Europe has recognized the potential of the information and communication technologies (ICTs) to foster economic development and facilitate cooperation in the region. Electronic South East Europe (or eSEE) Initiative was established as one of the activities within the framework of the Second Working Table (Economy). In 2002, during the "South Eastern Europe Conference on Policy and Cooperation in Telecommunications" in Belgrade, regional ministers signed an eSEE Agenda for the Development of the Information Society. This document was followed by the Memorandum of Understanding on the Development of Unified Market of Broadband Networks Fully Interconnected to the European and Global Networks – Initiative for bSEE – Broadband South Eastern Europe signed during the South-Eastern Europe Ministerial Conference on the Information Society, in Thessaloniki in 2005. Finally, in 2007, in Sarajevo, during the Ministerial Conference of Electronic South Eastern Europe Initiative, responsible ministers of the region signed the eSEE Agenda + for the Development of Information Society in SEE from 2007 to 2012. Implementation of these documents is monitored and facilitated by the eSEE Secretariat established in Sarajevo with the funding of

<sup>36</sup> Although Croatia and FYROM have been granted candidate country status they remain part of SAP.

<sup>37</sup> Council Regulation (EC) No [2666/2000](#) of December 5, 2000 on assistance for Albania, Bosnia and Herzegovina, Croatia, the Federal Republic of Yugoslavia and the Former Yugoslav Republic of Macedonia, repealing Regulation (EC) No [1628/96](#) and amending Regulations (EEC) No [3906/89](#) and (EEC) No [1360/90](#) and Decisions [97/256/EC](#) and [1999/311/EC](#)

<sup>38</sup> Council Regulation (EC) No [2257/2004](#) of December 20, 2004 amending Regulations (EEC) No [3906/89](#), (EC) No [1267/1999](#), (EC) No [1268/1999](#) and (EC) No [2666/2000](#), to take into account of Croatia's candidate status

<sup>39</sup> Council Regulation (EC) No [1085/2006](#) of July 17, 2006 establishing an Instrument for Pre-Accession Assistance – IPA

UNDP. In 2008, the Centre for eGovernance Development was established in Ljubljana, with an aim to provide support and coordination for the implementation of eSEE Agenda + in the region through education and training, knowledge base and web portal, workshops and seminars and support for preparing project proposals.

The ITU has a programme of training events for officials from regulators and ministries in Eastern Europe.<sup>40</sup> A group of Greek operators and manufacturers created a private entity, South-eastern Europe Telecommunications and Informatics Research Institute – INA, to conduct telecommunications and ICT research in the region.<sup>41</sup> It also provides some training on telecom and ICT issues for regional authorities.

### III. METHODOLOGY

The monitoring project relies on the work of the national regulatory authorities and the ministries responsible for electronic communications and information society policies for data collection. The principal sources of the information presented in this report are listed in Table 4. Some additional information has been taken from Eurostat.

Country	Electronic communications	Information society services
Croatia	Croatian Agency for Post and Electronic Communications (HAKOM), previously the Croatian Telecommunications Agency (HAT)	Central State Administrative Office for e-Croatia
FYROM	Agency for Electronic Communications (AEC)	Agency for Electronic Communications (AEC)
Turkey	Telecommunications Authority (TA)	State Planning Organization (SPO)
Albania	Authority for Electronic Communications and Post (AECPP), previously the Telecommunications Regulations Entity (TRE)	Ministry of Public Works, Transport and Telecommunications
Bosnia & Herzegovina	Communications Regulatory Agency (RAK)	Communications Regulatory Agency (RAK) Ministry of Communications and Transport
Montenegro	Agency for Telecommunications and Postal Services	Secretariat for the Development of Montenegro
Serbia	Republic Telecommunications Agency (RATEL)	Ministry for Telecommunications and Information Society
Kosovo	Telecommunications Regulatory Authority (TRA)	Ministry of Transport and Communications

Table 4 - Authorities and ministries supplying data for this report

The information collection process involved four sets of questionnaires distributed to the relevant ministries and authorities: three covering electronic communications and one for information society services:

1. Electronic communications: Regulatory and organisational information. The questionnaire addressed institutional and organisational issues as well as of regulatory processes, such as the completion of market analyses, regulatory obligations imposed on operators with SMP, competitive safeguards and the universal service framework.
2. Electronic communications: Price information. The questionnaire covered a range of retail and wholesale tariffs.
3. Electronic communications: Market information. The questionnaire covered general economic background and various statistics from the electronic communications market.

<sup>40</sup> <http://www.itu.int/ITU-D/hrd/coe/eur/index.asp>

<sup>41</sup> <http://www.inatelecom.org/>

4. Information society services. The questionnaire covers regulatory aspects of information society services and a limited set of statistical indicators.

The reference dates for the four questionnaires were April 1, 2008, for quarterly data and December 31, 2007, for annual data. Regulatory and institutional data were as at June 1, 2008, though some indications are also reported of further changes that were well advanced.

The information provided by the regulatory authorities has been reviewed and validated by independent experts contracted by Cullen International in each of the participating countries.

#### IV. INTERIM STUDY REPORT STRUCTURE

The structure of the nine-monthly interim study reports comprises three principal chapters:

- Summary report: an overview of the most important legislative, regulatory and market developments in the region and in individual countries over the nine-months to the end of May 2008. It presents key findings, highlights the major market trends and provides a summary assessment of the market data.
- Country profiles: an overview of policy making and regulatory authorities for electronic communications and information society services in the monitored countries and outlines the key legal and policy documents.
- Country data: the structure is similar to that of Volume 2 of the annex of the European Commission's 13<sup>th</sup> Implementation Report.<sup>42</sup> It presents the indicators for electronic communications and information society services in the form of cross-country comparative tables and figures.

#### V. SCOPE OF INDICATORS

##### A. General economic background

The indicators include general information about currencies, exchange rates, value added tax, inflation, population and household statistics, gross domestic product, unemployment, Purchasing Power Parity (PPP) and Gini (measuring inequality of income). This background information is necessary to provide a basic understanding of the economic conditions in each country and to allow the calculation of further indicators, for example, expressed as a percentage of the population.

##### B. Electronic communications

The scope of indicators for electronic communications services closely follows the previous reports on "Monitoring the telecommunications services sector and related aspects in South East Europe" in the period 2005 to 2007.<sup>43</sup> These reports were used as models with appropriate changes and additions, taking utmost account of the Commission's 12<sup>th</sup> and 13<sup>th</sup> Implementation Reports.

The indicators address the following aspects of electronic communications markets:

- Electronic communications market overview: market value of the electronic communications sector by country and by individual service category, annual spending per capita, overview of fixed, mobile and broadband access markets in terms of penetration, main players, competition and available technologies. A new set of indicators is introduced to address market shares of the operators, the use of competitive fixed telephony services offered by alternative operators (VoIP, cable television, direct access and CS/CPS), prepaid and monthly paid mobile services, use of narrowband and broadband Internet services, retail broadband access by the type of technology. The degree of control of major undertakings (fixed, mobile and ISP) by foreign investors with the key financial ratios of the incumbent operators.

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<sup>42</sup> [http://ec.europa.eu/information\\_society/policy/ecomms/implementation\\_enforcement/index\\_en.htm](http://ec.europa.eu/information_society/policy/ecomms/implementation_enforcement/index_en.htm)

<sup>43</sup> [http://ec.europa.eu/information\\_society/newsroom/cf/itemdetail.cfm?item\\_id=2310](http://ec.europa.eu/information_society/newsroom/cf/itemdetail.cfm?item_id=2310)

- National regulatory authorities: the indicators were revised, taking into account some elements used in the ECTA Regulatory Scorecard 2007.<sup>44</sup> New indicators have been added to reflect NRA independence, powers, accountability and transparency.
- Market access conditions in electronic communications: liberalisation status of electronic communications networks and services, authorisation regimes, specific requirements applicable to cable television and VoIP providers.
- Implementation of the EU regulatory framework: market analyses by NRAs, national frameworks for market definitions, principles for designation of operators with SMP and the imposition of remedies.
- Competitive safeguards: CS/CPS, number portability, availability and practical implementation of reference interconnection and wholesale access offers (LLU, bitstream access, resale offers and wholesale line rental), mobile access and call origination, price control and regulatory cost accounting for fixed and mobile operators.
- Universal service: the scope of universal service and mechanism to designate the provider(s), funding and quality of service.
- Retail tariffs:
  - Fixed tariffs: tariff rebalancing and regulation of retail tariffs, call charging systems and minimum cost of call, monthly subscription fees and one-off connection charges, tariffs of the incumbent and alternative operators for local, long-distance, fixed to mobile and international calls;
  - Mobile tariffs: based on the OECD 2002 mobile baskets;<sup>45</sup>
  - Special cross-border and roaming arrangements within the region;
  - Retail leased lines; and
  - Internet access retail prices: dial-up and broadband Internet access.
- Wholesale tariffs: call termination charges on the incumbent's fixed network and on mobile networks.

### C. Information society services

This interim study report includes, for the first time, indicators for "information society services"<sup>46</sup>. These have been chosen to address the following:

- A Council Resolution<sup>47</sup> adopted in 2003 and a Regulation<sup>48</sup> of the European Parliament and the Council adopted in 2004 defined indicators and required Member States to collect certain information in order to measure progress toward the objectives defined in Lisbon in March 2000 and the eEurope action plan of 2002. The collected data are published regularly by Eurostat<sup>49</sup>. The eEurope benchmarking is being further developed under the i2010 Benchmarking Framework<sup>50</sup>, as endorsed

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<sup>44</sup> ECTA Regulatory Scorecards are available at: <http://www.ectaportal.com/en/basic651.html>

<sup>45</sup> Following the practice of the EC Implementation Reports, the revisions made to the OECD baskets have been ignored. See DSTI/ICCP/CISP(2006)1 at [http://www.oilis.oecd.org/olis/2006doc.nsf/ENGDATCORPLOOK/NT00003A5E/\\$FILE/JT03212157.PDF](http://www.oilis.oecd.org/olis/2006doc.nsf/ENGDATCORPLOOK/NT00003A5E/$FILE/JT03212157.PDF)

<sup>46</sup> Defined in the Directive 98/48/EC as "any service normally provided for remuneration, at a distance, by electronic means and at the individual request of a recipient of services".

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1998:217:0018:0026:EN:PDF>

<sup>47</sup> Council Resolution of Febr. 18, 2003 on the implementation of the eEurope 2005 Action Plan, 2003/C 48/02

<sup>48</sup> Regulation (EC) No 808/2004 of the European Parliament and the Council of April 21, 2004 concerning Community statistics on the information society

<sup>49</sup> See the Information society statistics, a sub-category of the theme Science and Technology:

[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=2973,64549069,2973\\_64554066&\\_dad=portal&\\_schema=PORTAL](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=2973,64549069,2973_64554066&_dad=portal&_schema=PORTAL)

<sup>50</sup>

[http://ec.europa.eu/information\\_society/europe/i2010/docs/benchmarking/060220\\_i2010\\_benchmarking\\_framework\\_nov\\_2006.doc](http://ec.europa.eu/information_society/europe/i2010/docs/benchmarking/060220_i2010_benchmarking_framework_nov_2006.doc)

by the i2010 High Level Group in April 2006. Commission Regulations regularly adjust the legal framework.<sup>51</sup> Not all of this information was available in the monitored countries. Therefore only the key indicators of computer and Internet usage by individuals and by enterprises have been reported. Other parts of the report cover broadband penetration. The national body responsible for information society statistics is identified, as are the types of statistical data that are available.

- Network and information security: obligations on providers to ensure the security of their service, measures to fight cybercrime, including whether a country has ratified the Council of Europe Convention on Cybercrime<sup>52</sup>, the responsible authority for security policy, the existence of alert systems in case of threats and the national policy;
- Electronic contracts and electronic signatures: legal recognition of electronic contracts and electronic signatures, market access to provide certification services, supervision and accreditation, and market data on availability of qualified certificates and usage of electronic signatures;
- Data protection and data retention: protection of confidentiality of communications, protection of traffic and location data, retention of traffic data for law enforcement purposes, measures to combat spam and provisions on itemised billing;
- Directories: legislation on the rights of subscribers to be included or to be not included, and the availability of comprehensive directories and directory enquiry services in practice;
- Internet backbone data: data on Internet Exchange Points (IXPs) and international Internet connectivity; and
- Management of Internet domains: name of the registry in charge of country code domain names, the relation between registry and registrars, national policies against cyber squatting and market data on the number of domains and prices.

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<sup>51</sup> Such as Commission Regulation (EC) No 1099/2005 for the survey year 2006 and Commission Regulation (EC) No 1031/2006 for the survey year 2007.

<sup>52</sup> Council of Europe, Convention on Cybercrime, ETS No. 185, Nov. 23, 2001.  
<http://conventions.coe.int/Treaty/EN/Treaties/Html/185.htm>

## VI. SUMMARY REPORT

### A. Electronic communications market overview

#### 1. Electronic communications market value

The total value of the electronic communications market in the eight monitored countries is estimated at €15.5 billion in 2007, almost a 18% increase from the previous year. For comparison, in the EU-27, the electronic communications market revenue in 2007 was €293 billion with a modest 2% growth from €289 billion in 2006. The fastest growing sectors in the region in 2007 were Internet services with a 40% annual growth and mobile communications showing a 26% growth. However, in terms of revenue, mobile services amounted to 57% and Internet services to 6% of the region's electronic communications market value. Fixed voice telephony had a limited growth with 4.5% but represented 34% of the market value.

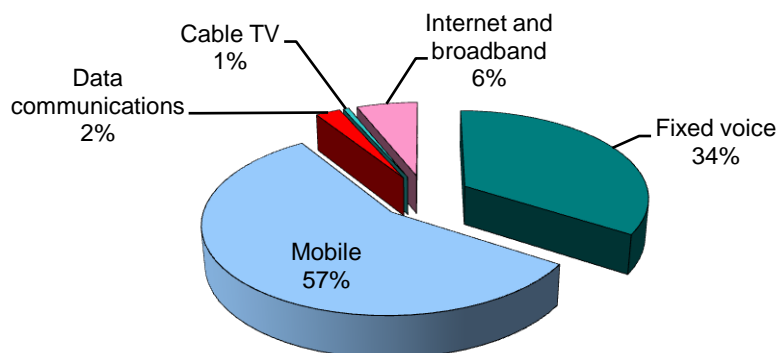


Figure 2- Electronic communications market in 2007, by sector

Breaking down the markets by countries, the patterns are inevitably dominated by the size of the Turkish market. Croatia, Serbia and Turkey accounted for 87% of the region's market value, at the same time as they accounted for 88% of the region's 96 million population.

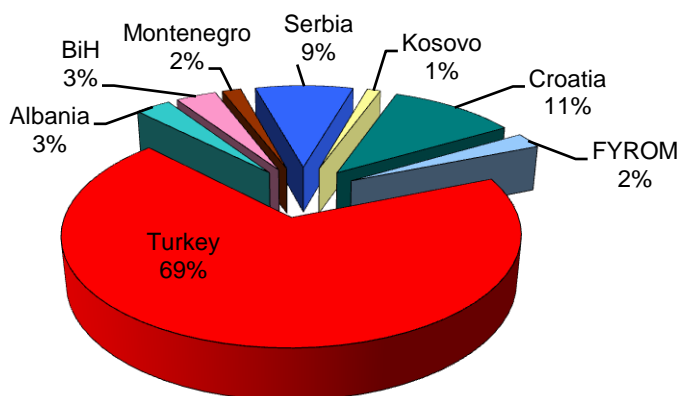


Figure 3 - Electronic communications market in 2007, by country

Electronic communications as a percentage of GDP reflect the different level and patterns of spending, of production and supply within the economy. The high value for Montenegro may indicate an underestimation of the GDP though it may match the high household spending on communications. The average value of GDP for all the countries is 3.6%. It is heavily weighted by the lower Turkish value. Excluding it gives an average of 5.2%, which is double the EU25 average in 2006 (2.5%).

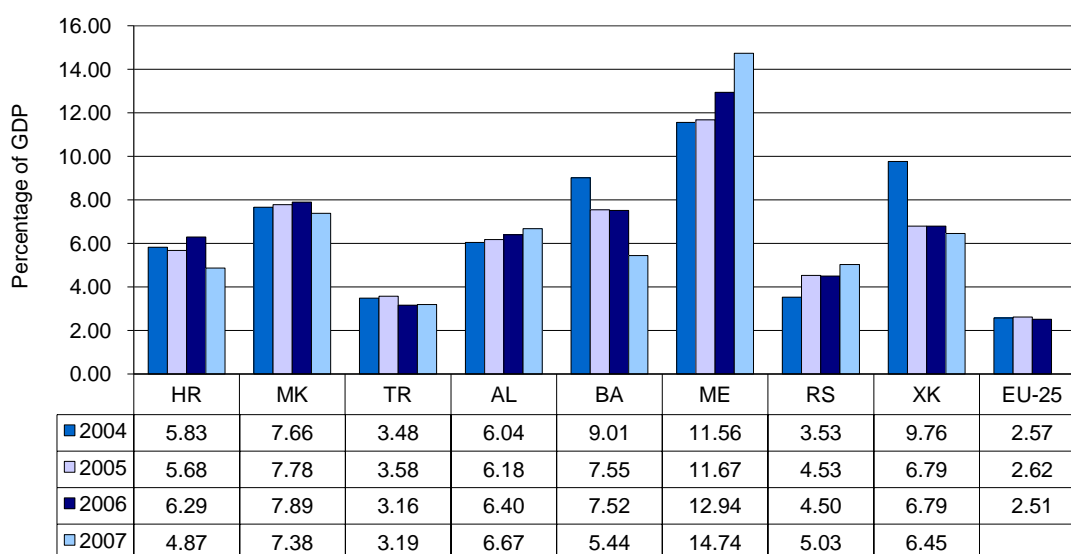


Figure 4 - Electronic communications as a percentage of GDP

## 2. Fixed telephony market

The total number of fixed lines (25 millions) is split between Turkey (18 millions), Serbia (3 millions), Croatia (1.7 millions), Bosnia & Herzegovina (1 millions), FYROM (460 thousand), Albania (300 thousand), Montenegro (175 thousand) and Kosovo (90 thousand).

When balancing these figures with the population, there are considerable differences in the levels of penetration of the fixed network with Albania and Kosovo at relatively low levels, while Croatia and Serbia have the highest level of penetration comparable to the EU-27 average. FYROM sees a continuous decrease of the penetration since 2005 while Serbia has a reverse trend with an increased penetration.

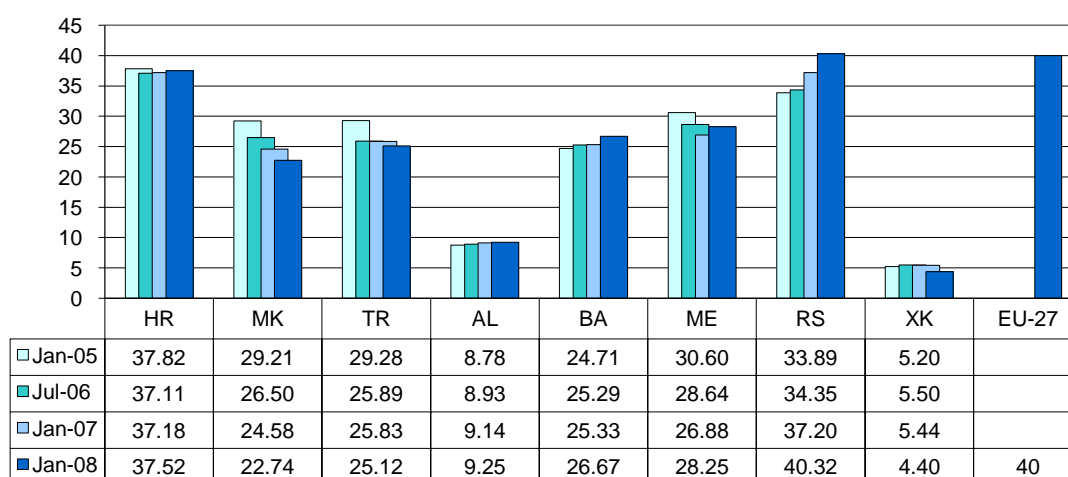


Figure 5 - Fixed lines per 100 population

All the countries have initiated the process of converting analogue networks to digital. In 2007, Croatia, Montenegro and FYROM have been joined by Kosovo where the incumbent operator has been rolling out a modern network. Turkey and Bosnia & Herzegovina have almost reached the target, while Serbia should reach 100% by 2010.

Party or group of lines remain a significant factor in the region. These lines serve two or more subscribers and consequently are a potential barrier to any intensive use of value added services (broadband) and to local loop unbundling. Croatia, Kosovo and Turkey have no party lines. Serbia has the highest level of party lines (7.4%) and to a less extent Albania (4.8%), Bosnia & Herzegovina (4%) and Montenegro (1.8%).

The development of competition in fixed networks and services in each country has been determined by individual liberalisation processes. Albania and Turkey are examples where competition at the local and the national levels had not been introduced at the same time. In Albania, rural local networks and services were liberalised before national services. Moreover, no alternative operator has been issued a licence to provide national services. Currently there are 60 local or regional operators, but only the incumbent operator provides services nationally. In Turkey, on the other hand, national networks and services were liberalised before local ones. Therefore, there are 32 operators providing long distance services, but local networks and services are only provided by the incumbent. In Serbia, fixed voice telephony services de facto have not been opened to competition.

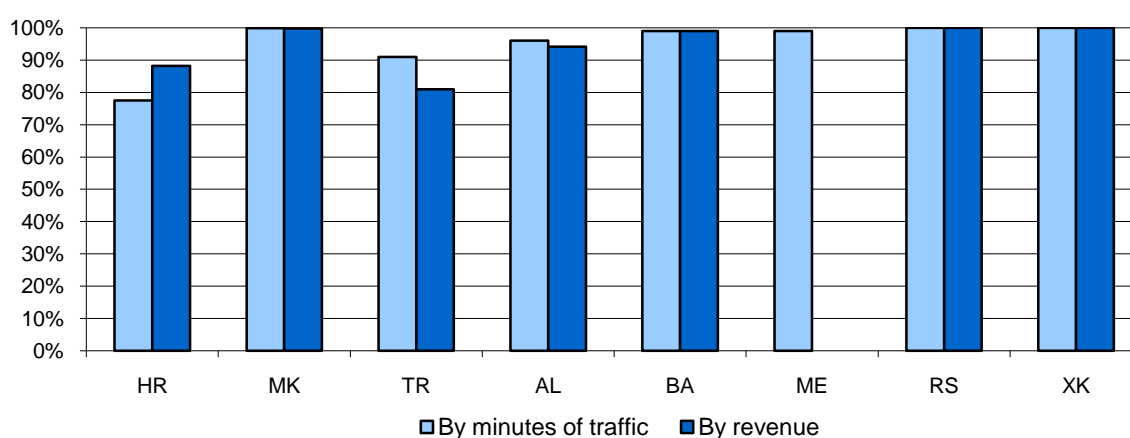


Figure 6 – Incumbent operators’ market share in fixed telephony

In all countries, the dominance of the incumbent operators is clear. The high market shares for international traffic suggest that the basic measures to introduce competition by opening international gateways have not been taken or have not been effective. VoIP is a frequently advertised service in Croatia, FYROM and Albania. Another effective way for the competitors to take market share from the incumbent is using carrier selection or carrier pre-selection. 21% of the subscribers in Croatia and 13% of the subscribers in Turkey are using an alternative operator as a percentage of total lines. In the other countries, the figure is below 1%.

### 3. Mobile market

At the end of 2007, there were 85 million subscribers of mobile services. However, there appears to be a significant number of plastic roamers (people with multiple SIM cards who switch to a local operator when moving between the entities). Others have multiple domestic SIM cards in order to exploit particularly attractive tariffs or to ensure network coverage. Finally, discrepancies also stem from different practices in defining “active” pre-paid customers since operators use periods varying between 3 months up to 13 months.

This is a sector where competition has been effectively implemented. The rise in mobile penetration rates has been rapid and sometimes dramatic. Croatia, Montenegro and Serbia exceed the EU-27 average while the other countries can be expected to join that level soon.



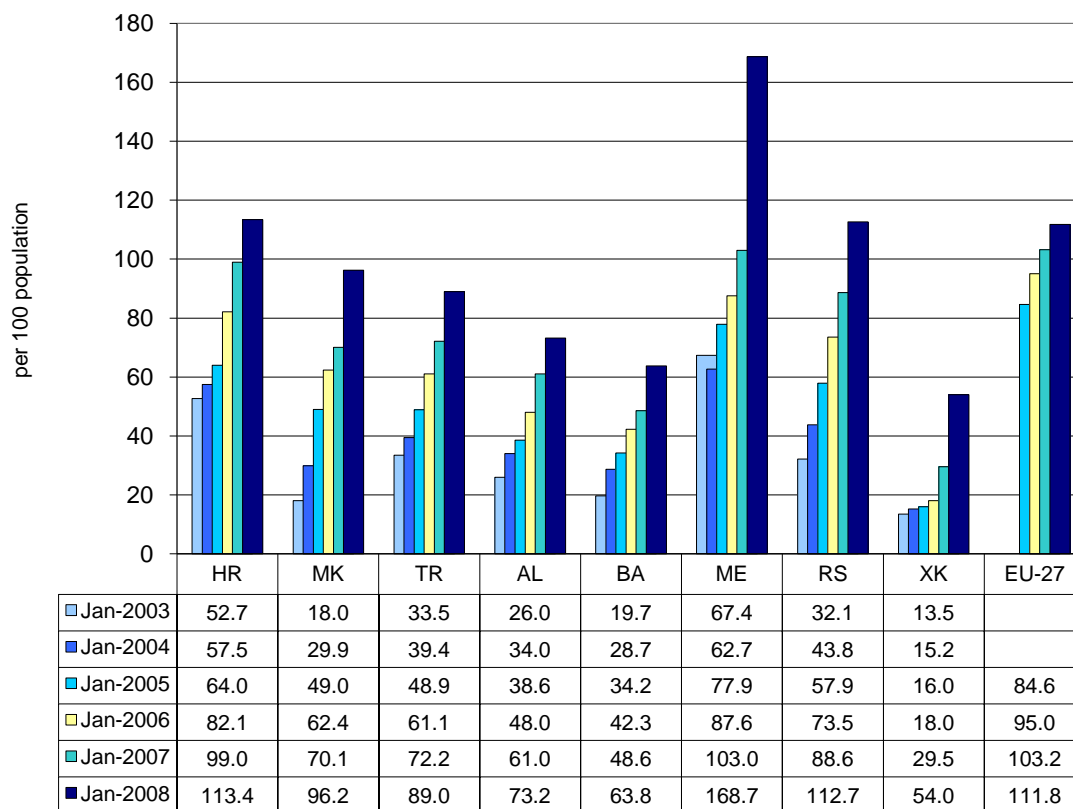


Figure 7 - Rise of mobile penetration in 2003 – 2007

In 2007 a significant increase in mobile penetration was observed in FYROM, Montenegro, Serbia and Kosovo which was triggered by the entry of new mobile operators. A third operator entered the market in FYROM (VIP), Montenegro (M:Tel) and Serbia (VIP), while a second operator was introduced in Kosovo (IPKO).

The majority of the customers use pre-paid services. In most countries, typically over 80% of mobile users are prepaid, with the exception of Croatia where the level of postpaid subscribers is slightly higher. In Kosovo and Albania, nearly all mobile users are prepaid. This high level of prepaid customers may raise questions regarding a future move to mobile broadband and value added services since a different business model may be necessary.

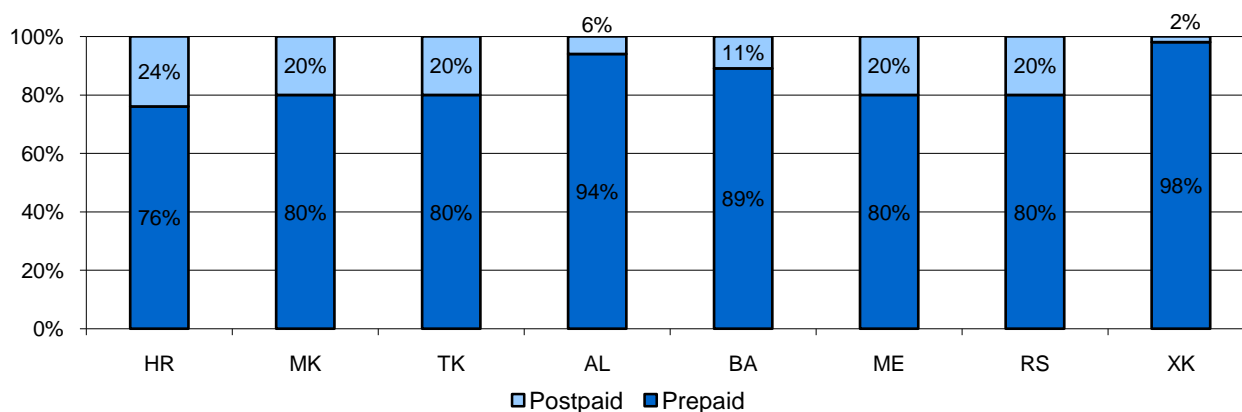


Figure 8 - Mobile subscribers - prepaid and postpaid

Although the mobile telephony is de facto the only sector where competition has emerged on any significant scale, most of the national mobile markets remain highly concentrated with established players typically controlling over 80-90% of the market. While the entry of new operators is increasing competition and is reflected in the acceleration of mobile penetration, they struggle to get a proportionate share of higher spending (business) customers.

#### 4. Internet and broadband

In the fixed Internet access, dial-up is still predominant in Croatia, Albania, Bosnia & Herzegovina, Montenegro and Serbia. FYROM has a majority of broadband, but still has significant numbers of dial-up lines. Turkey has few dial-up customers, possibly in areas where broadband is not accessible. Kosovo has a significant level of broadband but mainly due to the presence of cable and overall Internet penetration level is low in comparison with the other countries.

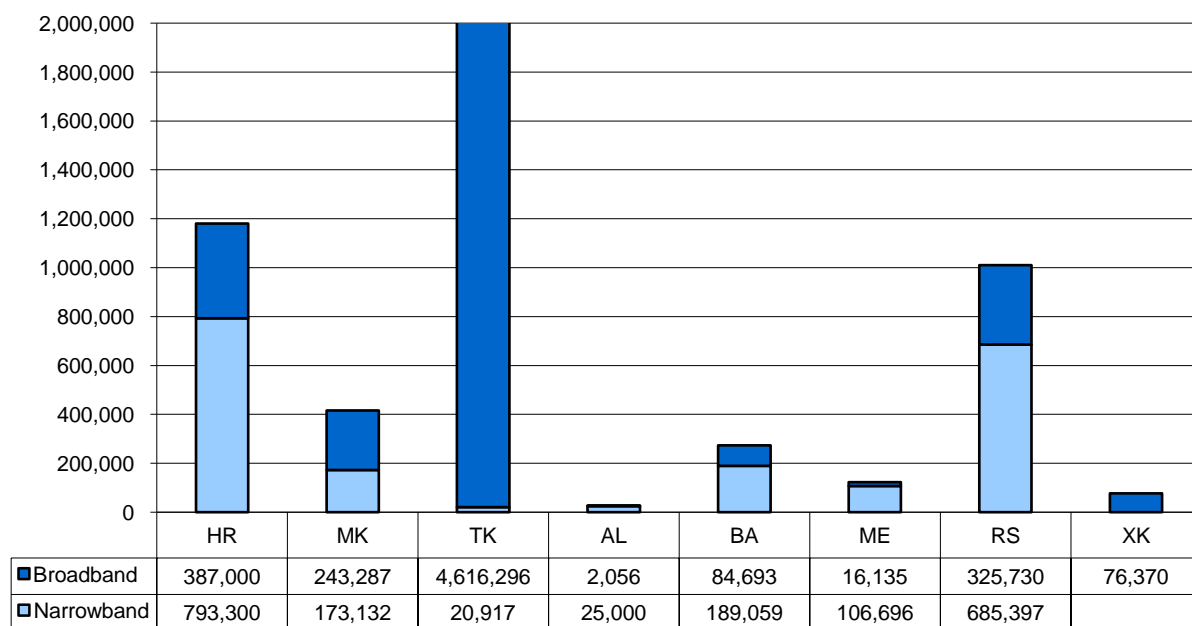


Figure 9 - Number of fixed Internet connections – broadband and narrowband

The number of ISPs active on the market may appear impressive in most of the countries. However, where figures are available, the majority of the market is controlled by the incumbent operators and invariably with higher revenue, suggesting that they hold the higher spending customers.

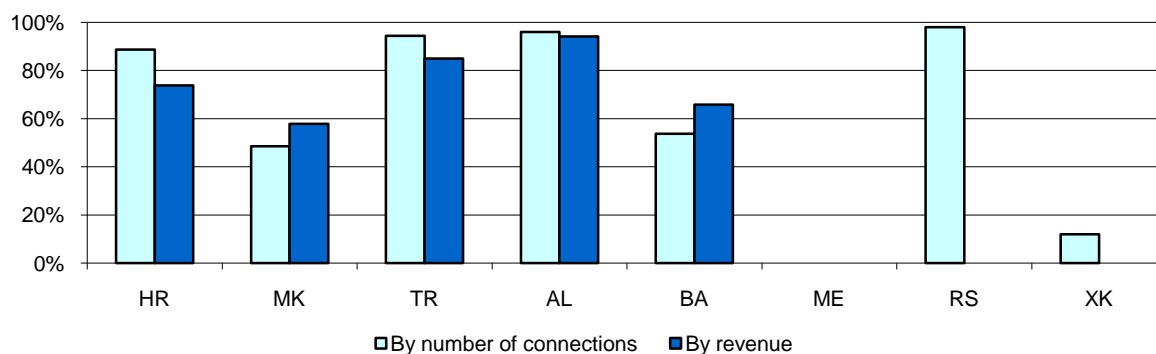


Figure 10 - Incumbent ISP's market share

Broadband penetration rate, measured as the overall number of broadband lines divided by the national population, is significantly below the EU-27 average rate that in January 2008 was 20%. The average broadband penetration rate for eight countries was 5.80%. The highest broadband penetration level was observed in Croatia (8.71%) and Turkey (6.30%), which is comparable to the level of Romania and Bulgaria that joined the EU in 2007.

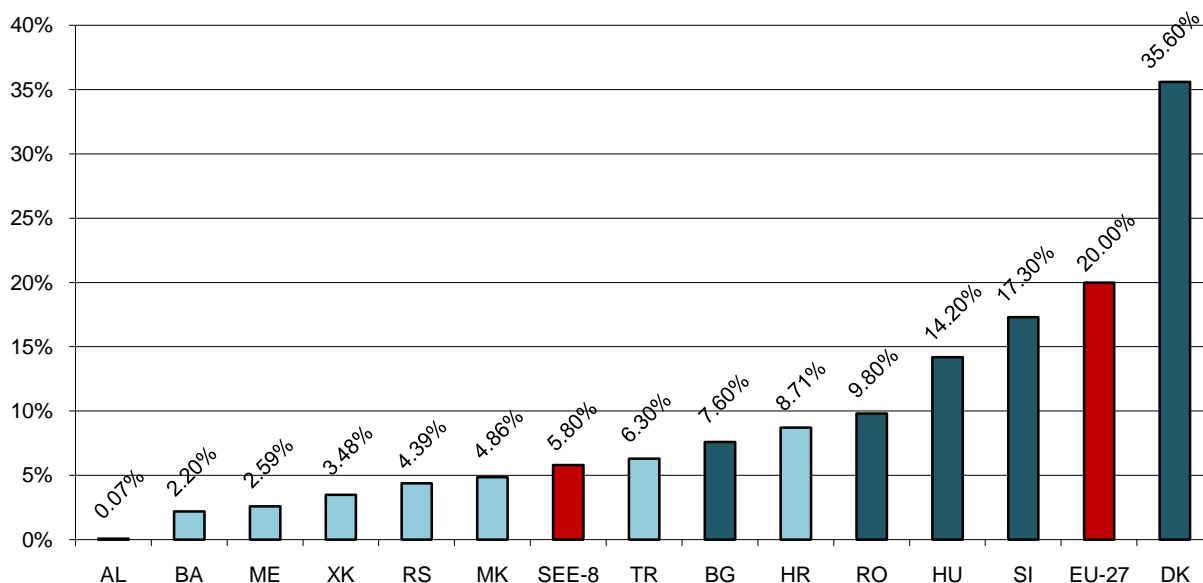


Figure 11 - Broadband penetration rate, January 2008

Broadband markets are dominated by fixed incumbent operators in Croatia, Turkey, Albania and Montenegro, where xDSL is the main access technology. A different situation is observed in FYROM, Bosnia & Herzegovina, Serbia and in particularly in Kosovo, where competitors are using alternative infrastructures – cable and to some extent also fixed wireless access networks.

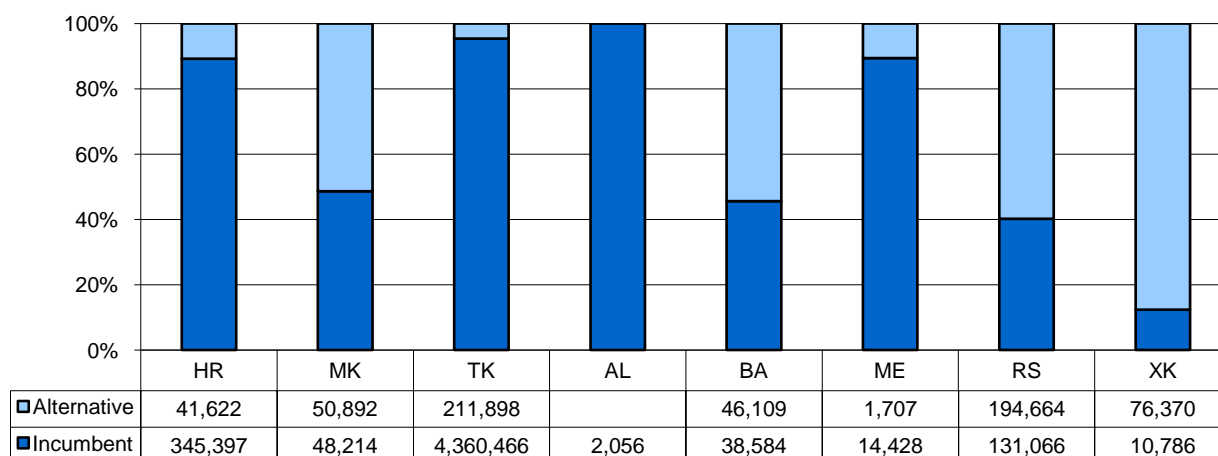


Figure 12 – Fixed retail broadband connections by incumbent and alternative operators

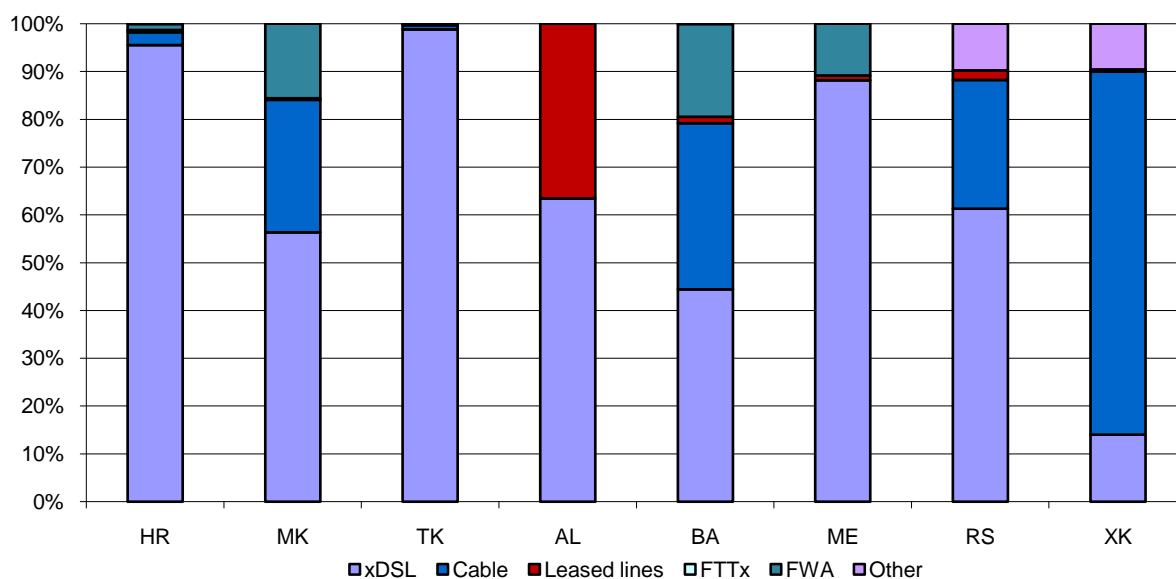


Figure 13 – Fixed retail broadband connections by technology

In terms of mobile broadband, spectrum licences for provision of 3G/UMTS services have been issued in Croatia, FYROM, Montenegro and Serbia. Further 3G spectrum assignments are expected to take place in the near future in FYROM and Bosnia and Herzegovina. Croatia has already achieved a significant number of 685.000 UMTS subscribers, while Serbia has 250,000 active UMTS subscribers.

## 5. Control of major operators by foreign investors

A number of operators from other parts of Europe, some from countries with historic links through the former Yugoslavia and the previous Austro-Hungarian Empire, have invested in the region.

The German incumbent telecommunications operator, Deutsche Telekom, with its mobile subsidiary, T-Mobile, is one of the major investors in the region. In Croatia, it directly controls 51% of HT- Hrvatske Telekomunikacije, the incumbent operator that also controls one of the major Internet providers, Iskon Internet. Through its 60% owned Hungarian subsidiary, Magyar Telekom, Deutsche Telekom also controls 33.60% of Makedonski Telekom, the incumbent operator in FYROM and 45.53% of Crnogorski Telekom, the incumbent operator in Montenegro. Indirectly, through HT-Hrvatske Telekomunikacije, Deutsche Telekom also controls activities of the fixed operator HT-Mostar and the mobile operator HT-Euronet in Bosnia & Herzegovina.

The Greek incumbent operator, OTE, controls 20% of Telekom Srbije, the Serbian incumbent operator; 85% of AMC, a major Albanian mobile network operator; and holds 100% of shares in Cosmofon, the mobile operator in FYROM. In May 2008, Deutsche Telekom reached an agreement with the Greek government to increase its stake in OTE to 25% plus one vote that would give Deutsche Telekom the right to participate in management control of OTE. The proposed transaction has already been approved by the European Commission, the Greek Parliament in Athens, the Greek Inter-Ministerial Privatisation Committee and the supervisory board of Deutsche Telekom. Approvals by the national competition authorities are expected in the course of October 2008. The transaction raises competition concerns about overlapping interests in the mobile market in FYROM, and to some extent in Bosnia & Herzegovina (where Telekom Srbije controls one of the three incumbent operators, Telekom Srpske).

The Austrian incumbent telecommunications operator, Telekom Austria, through its mobile subsidiary, mobilkom, controls 100% of the major Croatian mobile operator, VIPNet, and has recently acquired mobile licences in FYROM and Serbia.

Vodafone group has relatively modest presence in the region with the ownership of two mobile operators: in Turkey (former Telsim) and in Albania. The Norwegian incumbent operator, Telenor, also owns two mobile operators: in Montenegro and in Serbia.

Telekom Slovenije, the Slovenian incumbent operator, controls 75% of the major alternative provider of fixed and mobile services in Kosovo, IPKO. It also holds 83% of the largest alternative fixed network operator in FYROM, On.Net and has invested in Internet service providers in Albania and Bosnia and Herzegovina.

## B. National regulatory authorities

### 1. NRA independence

The establishment of an independent NRA is a cornerstone of the EU regulatory framework for electronic communications. Independence involves two elements: (i) separation of the NRA from the regulated firms and (ii) isolation of the NRA from political intervention. The first aspect of independence (from industry) is generally less contentious and more straightforward to assess than the second (independence from political influence).

Under the EU regulatory framework, there has been no requirement for privatisation and the rules on institutional separation are set out in recognition of the legitimacy of the state ownership. Except in Montenegro and Croatia, all the other countries have a State shareholding ranging from 25% up to 100%.

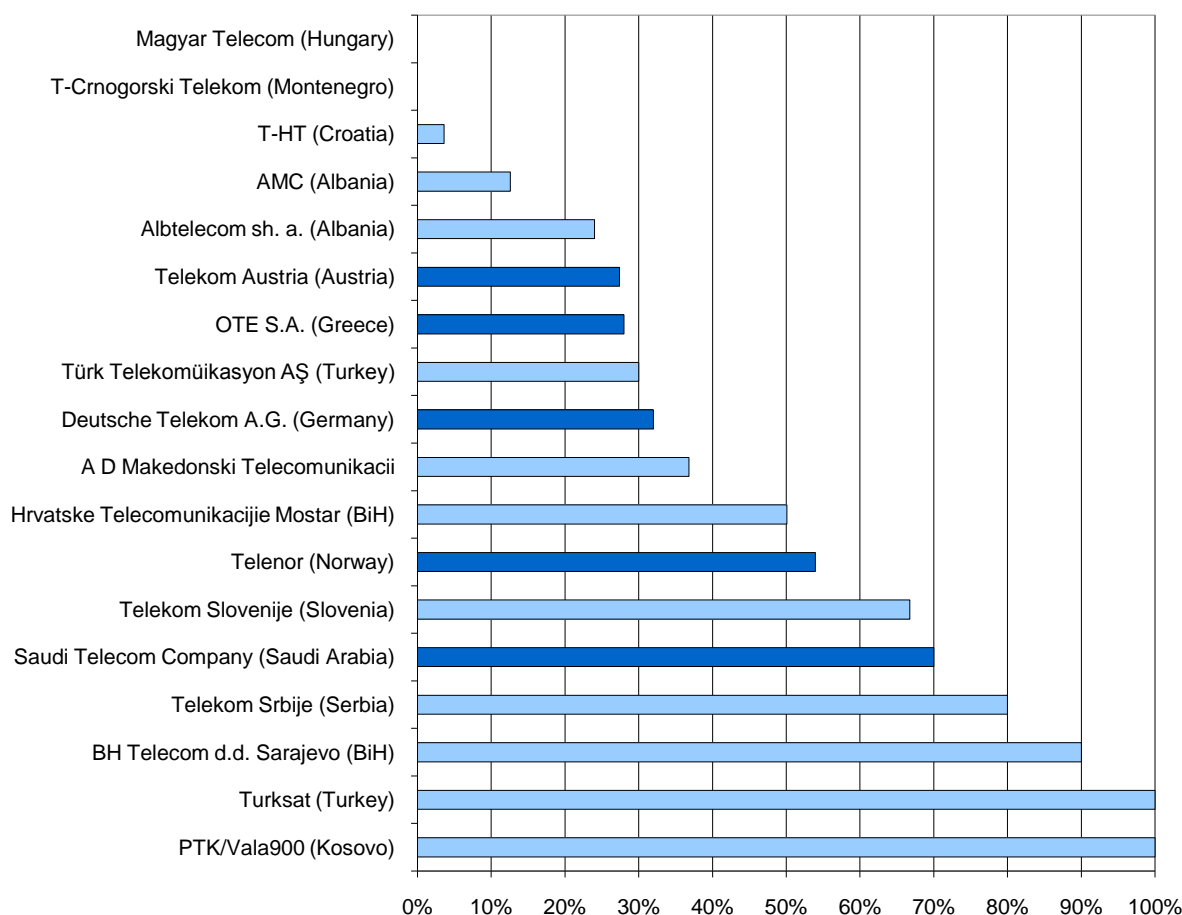


Figure 14 - State ownership of telecommunications operators (government)

There are no clear trends in the management of the ownership functions. It varies from the government as a whole to a control via the Ministry of economy, the Ministry for telecommunications or a combination of

both Ministries. The decrease of the State shareholding is usually facilitating the effectiveness of the independence of the NRA. However, one must note that in some of these countries, the partial or full privatisation of the national incumbents has occurred through acquisitions by incumbent operators from the former EU-15 (notably Deutsche Telekom) where the liberalisation has been initiated 10 year ago. Consequently, the NRAs, which are still building their independence in a regulatory framework that is under construction, are facing local incumbent operators benefiting from the regulatory experience of their new shareholders. In other words, while the decrease of the State shareholding may facilitate political independence of the NRAs, the regulatory framework will need to be effectively implemented to ensure a balance of power between strong local incumbents and emerging independent NRAs that are still on a learning curve.

Regarding political influence, the mere possibility of political intervention may put the NRAs under pressure. Although there is no explicit requirement to separate regulatory tasks from the activities of the Ministry or other bodies responsible for the electronic communications policy, the common practice across the EU is to create an NRA that is also separate from the policy-making bodies. Political independence can be assessed, inter alia, on the basis of: the Ministry (government) powers to give instructions to the NRA, the government approval required for adopting certain decisions, the rules for appointment and dismissal of the NRA management and its term of office. In general, the concept of NRA independence is being progressively introduced in the national regulatory frameworks alongside the adoption of new laws on electronic communications.

Nevertheless, the situation is far from being completely satisfactory and varies from country to country: (i) relative effective independence of the NRA (Croatia), (ii) obligation for the NRA to obtain the opinion from the Ministry about the constitutionality or the legality of the regulation (Serbia) and (iii) independence of the NRA with the exception of the granting of certain licenses and universal services obligations (Turkey). In Montenegro, the new law redefined the key functions of the Ministry and the regulator making a clear division between the legislative and policy-making tasks carried out by the Ministry (and the government) and the regulatory tasks performed by the NRA. At the same, the law gives the Ministry the powers of judicial review of the NRA decisions as the first appeal instance, effectively undermining the NRA independence.

There is, however, a general positive trend with the adoption of a series of new laws which in general have increased the political independence of the NRAs.

## 2. Appointment and dismissal of the directors of the NRA

The rules and procedures for the appointment and dismissal of the management of the NRAs are an important factor facilitating the effectiveness of the independence. This report measures (i) the eligibility criteria, (ii) procedures of appointment and government bodies involved, (iii) term in office and (iv) procedures for removal.

The situation varies across countries with different eligibility criteria reflecting a more or less detailed approach and/or requirements but with the same objective of ensuring the selection of qualified candidates.

The appointment procedures for the board members also vary from country to country with appointment (i) by the Parliament only (FYROM), (ii) appointment by Parliament following a government proposal (Albania, Croatia, Bosnia & Herzegovina, Serbia, Kosovo), (iii) by the government only (Montenegro). Consequently, the Parliament is often included in the appointment process. One exception is found in Turkey where the appointment is the result of a complex mechanism with board members nominated by operators with more than 10% market share, the Ministry of Industry & Trade, the Union of Chambers and Industry and the Minister of Transport followed by the appointment via the Council of Ministers with the approval of the President of the Republic. The appointment of the Executive Director in charge of the NRA's day-to-day operations is usually done via the board members with few exceptions. Bosnia & Herzegovina requests the approval of the Council of Ministers. In Albania, Kosovo and Turkey there is no separate position of the Executive Director and the Chairman of the NRA board is responsible for both, regulatory and operational functions.

The term in office is generally 4 to 5 years with the possibility of one renewal, which seems reasonable. Croatia has a five-year period with the possibility of reappointment while Albania has the same period but it is limited to one term of office.

### 3. NRA budget and sources of financing

The financial resources available to the NRA, the number of employees and its ability to attract and retain suitably qualified staff are particularly important aspects in assessing the capacity of the NRA to operate effectively.

The funds available for the NRAs are ranging from below €2 millions (Kosovo, Albania) to € 9 millions (Croatia, Serbia) with the exception of Turkey where the budget was €49 millions in 2007 (no figures are available for 2008).

With the exception of Croatia and FYROM, most of the NRAs relied for a large part on one-off authorisation/notification fees. This may rise to nearly 100% in Montenegro and Kosovo. With the introduction of annual revenue based and spectrum fees in 2008, the situation in Kosovo is expected to change. The other main sources of financing essentially rely on spectrum (FYROM, Turkey, and Albania). In Serbia, 55% of the NRA funding comes from one-off authorisation fees while 40% - from spectrum usage fees. The Croatian NRA, in particular, relies on a well-balanced funding from (i) revenue based annual fees, (ii) spectrum and (iii) numbers.

### 4. NRA staffing

The average number of staff in 2008 is between 50 and 100 (up to 125 for Croatia) with two exceptions: Albania with a team of 30 and Turkey with a team of nearly 600. The distribution of the number of people committed to the handling of electronic communications regulatory tasks and the handling of frequency monitoring tasks varies across countries, with particularly low numbers for Kosovo (11), FYROM (14) and Montenegro (15) that raise concerns about the lack of competent resources.

### 5. NRA enforcement powers

In order to ensure effective compliance with SMP obligations, the NRAs sanctioning power should, in particular, allow them to impose fines with a sufficiently deterrent effect and to order the suspension of non-compliant commercial offers.

In general, the NRAs have the power to impose fines directly with an exception in FYROM where the NRA may initiate a procedure under the Law on Misdemeanours and the Law on Criminal Procedures. When the amount is calculated as a percentage, the level varies from 1% up to 10% of the total annual revenues with no maximum limit. Some countries impose a maximum fine: Serbia (€37,000), Montenegro (€15,000), Bosnia & Herzegovina (€75,000 for the first violation and €150,000 for the second violation) and Kosovo (€250,000). However, it seems that financial penalties are not used very often, except in Bosnia & Herzegovina.

All the NRAs have the power to suspend commercial offers. At first glance, it seems that this enforcement power is used more often than financial penalties. The interventions of the NRAs at the retail level are used as a tool to force the SMP operators to adapt their prices and solve a competition problem (price squeeze or predatory pricing). In some cases, the NRAs suspend the retail offer until the retail price is set at a level allowing competitors to enter the market. In other cases, the NRA suspends the retail offer as a leveraging tool in their negotiation of a wholesale reference offer until the wholesale price is set at a level that allows competitors to enter the market.

### 6. Dispute resolution

Dispute resolution mechanisms cover disputes between operators but some countries also give the NRA the power to settle disputes between providers and end users (Croatia, Bosnia & Herzegovina, Montenegro, Serbia, Kosovo).

In general, the deadline for the NRA to resolve a dispute is 4 months (extendable to 6 in Turkey). Some countries specify a minimum unsuccessful negotiation period from 45 days up to 90 days) before the

dispute is passed to the NRA. Some countries impose a short deadline: in Bosnia & Herzegovina, the NRA has to issue a binding decision within 6 days (in exceptional cases 10 days) from receiving the request, in Kosovo, the NRA issues a binding decision within 6 weeks. While this short timeframe may seem impressive in theory, the practicality of such a short timeframe may be questioned.

Croatia, Bosnia & Herzegovina, Albania and Serbia have included a specific provision in the law that obliges the NRAs to publish their decisions. Interestingly, Serbia is specifically requesting its NRA to create and maintain a database of all its decisions, including complaints about those decisions, as well as any other information of importance for the telecommunications sector. The other countries do not have legal provisions requiring the NRAs to publish their decisions.

## 7. NRA accountability

Independence needs to be reconciled with measures to ensure that the NRAs are accountable for their actions via (i) publication of an action plan, (ii) financial and regulatory reporting and (iii) review of the NRA performance.

Regarding the publication of the action plan, Serbia, FYROM, and Turkey request the NRA to publish it. The new law in Montenegro also introduces a requirement for the NRA to publish its action plan along with the financial plan, after both have been approved by the government. In Croatia, the action plan must respect the prioritisation and the long-term guidelines adopted by the Parliament following a government proposal. In Bosnia & Herzegovina and Kosovo, the NRA must plan its activities in accordance with the Telecommunications Sector Policies adopted by the government.

All the countries include a reporting mechanism. A general trend shows the emergence of a central role left to the Parliament alone or with the Government. Bosnia & Herzegovina is an exception and the NRA only reports to the government on the tasks performed.

## 8. Appeal procedures

In order to counterbalance the independence of a NRA, it is critical to ensure effective mechanisms enabling any party affected by an NRA decision to appeal against the decision to a body that is independent of the parties involved.

All the countries have an appeal procedure. However, since it is closely linked to the national judicial system, the mechanisms are different. The appeal body is a court acting as a first instance or second instance after an appeal in first instance handled by the NRA managing board. The exception is Montenegro, where the first instance in the appeal procedure is the Ministry.

In order to avoid weakening the NRA and abuse of the appeal procedure, an appeal of the NRA decision should not automatically suspend the application of the appealed decision. Croatia, Turkey, Bosnia & Herzegovina, Montenegro, and Kosovo do not automatically suspend the appealed decision while FYROM, Albania, and Serbia have such automatic suspension.

The appeal body should be able to consider the merit of the case and not only the procedural matters. This is the case in most of the countries, except FYROM and Bosnia & Herzegovina where the court is limited to the correct application of the law.

Lastly, most of the countries allow a third party to appeal a decision if they have a legal interest in the case. Only FYROM, Turkey, and Kosovo exclude third parties.

In order to be effective, the duration of such a procedure must be reasonable. Croatia reported an average duration of the appeal proceeding in the court of 5 years. Unfortunately, the insufficient data does not allow a comparative assessment of the length of the appeal procedures across the monitored countries.

## 9. NRA transparency and participation

The NRAs need to exercise their powers impartially and transparently. A lack of transparency undermines legal certainty and increases the potential for political interference. Furthermore, according to the principle of transparency, regulatory processes should allow for formal consultation of the stakeholders before decisions are made.



The rules and procedures vary from country to country but, to a certain degree, all NRAs have an established practice to organise public consultation on specific decisions. The average period for comments is 30 days with a maximum of 3 months in Montenegro and a minimum of 14 days in Bosnia & Herzegovina and Serbia. However, it does not seem to be a common practice for the NRAs to publish a summary of the received responses to the consultation along with its reasoned opinion.

The publication of the adopted decisions is not always a straightforward process. In Turkey, there is no obligation for the NRA to publish all its decisions, and the publication is decided on a case by case basis.

#### 10. Frequency management

Frequency management function includes two main tasks: (i) frequency allocation, including the decision on the national frequency plan; and (ii) frequency assignments, covering individual authorisations to use frequencies in the national frequency plan. Frequencies for the military sector are normally decided outside this framework.

In Bosnia & Herzegovina and FYROM, NRAs are responsible for the full scope of frequency management functions, including both frequency allocation and frequency assignments for telecommunications and broadcasting. In Turkey, the NRA is responsible for frequency allocation and frequency assignment for telecommunications, while frequency assignment for broadcasting is carried out by the broadcasting authority. In Croatia and Serbia frequency allocation is carried out by the Government on the basis of a proposal of the NRA, while the NRA performs all frequency assignment tasks. In Montenegro, a similar regime has been introduced by the new law: frequency allocation is done by the Government on the basis of a proposal of the NRA to the Ministry, and the NRA assigns frequencies for telecommunications and broadcasting (under the previous law, spectrum assignment for broadcasters was carried out by the broadcasting authority).

In Kosovo, the national frequency plan is approved by the Parliament on the basis of the NRA proposal, and the NRA carries out all frequency assignments. Spectrum assignments for broadcasters, however, must be done in coordination with the broadcasting authority. In Albania, frequency allocation is decided by the Government on the basis of a proposal of the NRA to the Ministry. Similarly to Turkey, the NRA is responsible for frequency allocation and frequency assignment for telecommunications, while frequency assignment for broadcasting is carried out by the broadcasting authority.

#### 11. Regulatory framework for broadcasting networks

The convergence of new digital technologies implies that all forms of networks, including broadcasting networks, can compete for the delivery of voice, data and internet services as well as radio and television broadcasting content.

Even if there is a specific broadcasting authority responsible for content, in most of the countries, it is the NRA that assigns frequencies (except for Turkey and Albania). In most countries, there is a cooperation agreement between the NRA and the broadcasting authority. The exceptions are Albania and Kosovo where the practical aspects of this coordination have not been defined yet.

#### 12. Digital switchover plan

Most of the countries have set a deadline before the end of 2012, except for Turkey (2014) and Serbia (2015). Nevertheless, only Croatia with an early deadline of 2011 has a review under way. No decision on the analogue to digital switchover has been adopted in Albania.

#### 13. Cooperation between the NRA and the NCA

In Montenegro and in Kosovo, the NRA is responsible for competition issues in the electronic communications sector. In Croatia and in FYROM, both authorities have formalised their cooperation. In the other countries, such cooperation has not yet been formalised. Interestingly, in Turkey, the NCA is obliged to take account of the opinion of the NRA but the reverse is not mentioned.

## C. Market access conditions in electronic communications

### 1. Liberalisation of public fixed telecommunications networks and services

At least in theory, all countries liberalised the provision of all forms of public fixed telecommunications networks and services. In practice, however, access to certain market segments still remains problematic in some of the countries.

Croatia was the first country to introduce full liberalisation of local, domestic long distance and international networks and services on January 1, 2003. It was followed by Montenegro 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.

In FYROM, liberalisation of public fixed telecommunications networks and services was originally foreseen from January 1, 2005. Implementation was delayed until the second half of 2005 when the secondary legislation required under the Law of Electronic Communications of 2005 was adopted.

In Turkey, domestic long-distance and international networks were liberalised on January 1, 2004, and local services in July 2005. In practice, however, no licences have been issued for provision of local fixed telephony networks and services, pending the adoption of the licensing framework.

In Albania, liberalisation of fixed telephony networks and services has been a gradual process starting with rural local services in 1998, moving to domestic long distance services in July 2003 and international services in January 2005. In practice, competition only emerged at the level of rural local networks, with no alternative fixed network operators having been licensed to supply long distance and international services. In November 2006 the Telecommunications Law was amended to introduce a new concept of a regional licence for rural, urban and domestic long distance networks, effectively opening urban local networks for competition. The implementing legislation was adopted by the NRA only in April 2007, with little effect. The new Law on Electronic Communications that entered into force on June 26, 2008 is intended to achieve alignment with the principles of the EU 2003 regulatory framework and introduces a general authorisation regime for any type of electronic communications services.

Bosnia & Herzegovina liberalised local and domestic long distance services in 2002. International telephone services were opened for competition on January 1, 2006.

In Serbia, 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 exception of Internet and cable TV services that were already open to competition. In practice, Telekom Srbija remains the only licensed public fixed voice telephony operator and the only operator authorised to interconnect with foreign telecommunications networks. Serbia has a significant tariff rebalancing problem, with the policy document of October 2006 taking a very cautious approach to the practical implementation of full liberalisation. Despite applications for fixed voice telephony licences submitted by several operators, no decision on the tender procedure for the new licences has been adopted.

In Kosovo, the liberalisation of fixed networks and services was formally achieved by the Law on Telecommunications of May 12, 2003. However, the NRA only completed the secondary legislation on authorisations in 2006, allowing market entry for alternative providers. PTK, the incumbent operator, maintained exclusive control over international gateway facilities until December 31, 2007.

### 2. Liberalisation of data networks and services

Data networks and services had been opened to competition in all countries, often some years before voice services. Nonetheless, there remained problems with international traffic in several entities.

Albania and FYROM were the first countries to liberalise data services and networks in 1998, followed by Croatia which introduced liberalisation in 1999. In FYROM, the incumbent operator, however, maintained its monopoly over international networks until 2000.

Bosnia & Herzegovina liberalised both, national and international data networks and services in 2002. In Montenegro, data networks and services were formally liberalised in 2004, but the high licensing fee for international gateway facilities, created a barrier to entry that was only reduced in April 2007.

In Kosovo, the liberalisation was introduced by the Law on Telecommunications of May 12, 2003, but the authorisation framework enabling competitive market entry was implemented only in 2006. Furthermore, the incumbent maintained a monopoly over international gateway facilities until January 1, 2008.

In Turkey, the provision of data services was formally liberalised on June 10, 1994. The first licences were issued to service providers only in March 2002 after the establishment of the NRA in January 2002. The provision of data networks remained under monopoly of the incumbent operator until January 1, 2004.

### 3. Authorisation regime for electronic communications services

The EU 2003 regulatory framework establishes a general authorisation regime for the provision of electronic communications networks and services. Undertakings may only be required to notify the intention to commence the provision of electronic communication networks or services and to submit information required to allow the NRA to keep a register or list of providers. There is no requirement to obtain an explicit decision by the NRA before starting activities. Individual authorisations can only be required for the rights to use spectrum and numbers.

So far, only four of the monitored countries have introduced a general authorisation regime. FYROM introduced a general authorisation regime for all activities that do not require access to limited resources with adoption of the Law on Electronic Communications in 2005 based on the principles of the EU 2003 regulatory framework. Albania, Croatia and Montenegro have moved to a general authorisation regime in 2008 following the recent adoption of new laws based on the EU 2003 regulatory framework. The implementing legislation under the new authorisation regime is still being drafted in all of the three countries.

The authorisation regime in Kosovo is based on individual licences with one-off fees ranging from €5,000 for the provision of Internet services to €87,000 for national fixed telephone services. In Bosnia & Herzegovina, the authorisation regime combines individual licences for the provision of different type of public fixed telephony networks and services and class licences for the provision of Internet services. Individual licences are subject to low one-off fees (around €500), but relatively high annual fees (ranging from €2,600 for local networks to €35,800 for public fixed telephony services, with even higher fees paid by the incumbent operators). Serbia and Turkey have the most complex authorisation regimes combining different categories of individual licences and general authorisations. The authorisation regimes in both countries envisage complex public tender procedures for some of the most important licensing categories, including the provision of public fixed voice telephony networks and services.

The annual fee paid by authorised undertakings in most countries varies from 0.1% to 0.5% of gross annual turnover. Montenegro and Kosovo have the highest fee at 1%. The NRA in Kosovo, however, intends to reduce the annual fee to 0.3% in 2009, after the introduction of annual spectrum usage fees.

### 4. Rights of way

Rights of way are necessary to establish electronic communications infrastructure. For fixed network operators rolling out new infrastructures, access to public and private land is required to install cables and ducts. Similarly, access to building sites and construction permits is important for operators installing mobile network infrastructure. Article 11 of the Framework Directive requires that applications for granting the rights to install infrastructure on public or private property shall be handled by the relevant authorities in a transparent, non-discriminatory manner and without delay. It also states that the authorities issuing building permits must be structurally separated from the network operators.

The information provided by the NRAs shows that all countries have legal provisions on non-discriminatory access to the rights of way. However, no sufficient details have been provided by the NRAs to make an assessment of the applicable procedures and time frames for securing building and location permits in the monitored countries. Typically, the NRAs have little or no control over the procedures for granting rights of way, which typically involve issuing of building permits by local or regional authorities and location permits by authorities in charge of urban and country spatial planning. It was reported that in Croatia, application procedures for building permits for mobile infrastructure can take up to 359 days and application procedures for location permits – up to 559 days. In Serbia, the same procedures very often may last even longer.

In Croatia, the problem has been addressed in the new Electronic Communications Law that prescribes 30 days time limit for issuing building permits by the manager of the public property or the private property owner, and 30 days time limit for issuing location permits by planning authorities. Several initiatives to improve the present situation have been initiated, involving the relevant government bodies, the NRA and the industry.

To make a more comprehensive analysis of the situation in all monitored countries, it may be necessary to address the issue in more detail in the subsequent monitoring reports, covering: (i) procedures to access public and private land, (ii) other approvals/certificates/technical permits required and (iii) timeframe.

## D. Implementation of the EU regulatory framework

Four of the monitored countries have adopted national legislation based on the EU 2003 regulatory framework. FYROM was the first country in the region to adopt the new Law on Electronic Communications in 2005. Albania, Croatia and Montenegro have introduced the principles of the EU 2003 regulatory framework in their national legislation in 2008. The regulatory frameworks in other four countries are essentially based on the EU 1998 regulatory framework, sometimes combining certain elements of the 2003 framework.

In relation to the implementation of the regulatory framework, Article 27 of the Framework Directive establishes a requirement to ensure that the regulatory obligations related to access and interconnection, universal services and obligations related to retail markets are duly in place and maintained until the NRAs adopt new decisions in accordance with the new regulatory framework. The sections below address the national frameworks for market analysis procedures that are seen as a prerequisite for imposing asymmetric regulatory obligations, the implementation of access and interconnection obligations along with other competitive safeguards and universal service obligations.

### 1. Market analysis procedures and regulations

The concept of significant market power (SMP) is one of the central elements of the EU regulatory framework for electronic communications. Following a market analysis by the NRA, an operator can be designated as having SMP in a specified electronic communications market. Subsequently, it may be subject to specific *ex ante* regulatory obligations or remedies.

In all countries, the NRAs have no restrictions in collecting the information to be able to carry out market analysis. The provisions on definition of the relevant markets vary across countries: (i) it is left to the entire discretion of the NRAs (Bosnia & Herzegovina, Montenegro, Serbia and Kosovo), (ii) it is left to the discretion of the NRAs but with requirement to apply the competition law principles (FYROM, Turkey, Albania) or (iii) it is left to the discretion of the NRA but in line with the EU Recommendation on relevant markets (Croatia).

The central role of competition law is included in the regulatory frameworks. However, there may be a gap between the general principles and the effective application, in particular in Albania and Turkey where there is no cooperation agreement between the NRA and the NCA. In practice, the NRAs in FYROM and Turkey have also relied on the EU Recommendation on relevant markets of 2003 in defining relevant markets.

The common practice in recent years in all countries has been the application of the 25% market share threshold as a basis for SMP designation together with the rigid lists of regulatory obligations predefined in the laws or sometimes even in the licences. In Serbia, the market share threshold is 20%, though with the option for the NRA to use 25%. Kosovo and Turkey have a mixed system where a minimum set of remedies must be automatically applied to the SMP operator while the NRA can add additional remedies on its own discretion.

FYROM was the first country to introduce 40% market share threshold taken from its domestic competition law together with the requirement to consider other relevant market characteristics. Also, the predefined list of remedies was removed leaving the imposition of remedies to the NRA discretion. The timing of this report finds legal changes coming into effect, which should bring the applied approaches in three other countries much closer to that of the EU regulatory framework. The new laws adopted this year in Croatia,

Albania and Montenegro also move away from the 25% rule to a more comprehensive assessment based on the competition law principles and also enable the NRAs to impose regulatory obligations on their own discretion.

The frequency of the market analysis varies considerably between the countries: (i) not defined (Serbia, Montenegro), (ii) not defined but upon request of any service provider (Kosovo), (iii) once every year (FYROM, Bosnia & Herzegovina), (iv) every two years (Albania) and (v) every three years (Croatia and Turkey).

## 2. Analysis of relevant markets by NRAs

Although there has been a general positive trend in the regulatory framework with a move towards competition law principles, there is still a long way to go between the modification of the regulatory framework and its effective applications. For many NRAs, matching their market analysis procedures with the requirements of the complex EU 2003 regulatory framework will present the main challenge in the coming months.

In Croatia, the NRA has analysed in 2006-2007 four markets with definitions broadly corresponding to the ones defined under the ONP directive. The fixed incumbent operator, T-HT, and its 100% subsidiary, Iskon, were designated as having joint SMP in public fixed telephone network and services (including voice services and services for transmission of voice, sound, data, documents, pictures, etc.). T-HT was also designated as having SMP in leased lines. T-Mobile and VIPnet have SMP in public voice services on mobile networks. Finally, T-Com, T-Mobile and VIPnet also have SMP in interconnection. After the new Electronic Communications Act was passed in June 2008 that requires applying the principles of the national Law on Competition and the EU 2003 regulatory framework, a new round of market analyses has been initiated. The NRA intends to apply the EC Recommendation on relevant markets of 2007 for identifying the relevant markets and also apply the three criteria test to a few additional markets covering retail mobile telephony services, wholesale access and call origination in mobile networks and the wholesale fixed transit services.

In FYROM, the NRA has defined in August 2005 18 product markets according to the EC Recommendation of 2003. So far, it has only completed its analysis of the wholesale call termination market for individual mobile networks, designating T-Mobile and Cosmofon as having SMP and imposing regulatory obligations in January 2008. Until the NRA has completed its market analyses, the transitional provisions of the Electronic Communications Law provide for the designation of Makedonski Telekom as having SMP in fixed telephone networks and services and data transmission and leased lines services.

In Turkey, the NRA adopted the definitions of the 18 relevant markets according to the EC Recommendation of 2003 and completed market analyses as foreseen under the EU framework. In December 2005, all three MNOs, Turkcell, Vodafone and Avea were designated as having SMP in the mobile call termination market, with Turkcell also having SMP in the mobile access and call origination market. In March 2006, the NRA completed its analysis of the fixed markets, both wholesale and retail, corresponding to markets 1-14/2003, and designated Türk Telekom as having SMP in those markets. Since the law forces the NRA to perform its market analysis at least once every three years, one may expect that a new round of market analyses will be finalised in early 2009.

In Albania, the NRA identified and analysed eight markets in 2007. The mobile operators, AMC and Vodafone, were designated as having SMP in the markets for wholesale call termination on individual mobile networks and retail public mobile services. The fixed incumbent operator, Albtelecom, was designated as having SMP in six markets, covering retail access and publicly available phone calls at a fixed location, wholesale call termination on geographic numbers, 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: access and interconnection, non-discrimination, transparency (including RIO), price control, accounting separation and cost accounting. Albtelecom is also required to provide CS/CPS. A new law passed in May 2008 requires the application of competition law principles. Consequently, one may expect a new round of market analyses to be initiated shortly.

In Bosnia & Herzegovina, the NRA identified and analysed two markets in September 2007: one for fixed telephony services and one for mobile telephony services. The remedies imposed on the three incumbent operators include carrier selection (CS) and carrier pre-selection (CPS) and the publication of RIO for the fixed market. This approach may help the work of the NRA to introduce competition, but there is still a long way to go with the identification and analysis of relevant markets.

In Serbia, the NRA has identified and analysed two broad markets that do not reflect either the EU 1998 or 2003 frameworks. As a result, Telekom Srbija was designated as having SMP in the market for public fixed telephone networks and services, and SBB, the major cable TV operator, as having SMP in the market for radio and television programme distribution via cable network.

In Kosovo and Montenegro, no comprehensive market analyses have been carried out by the NRAs yet. In Kosovo, by the provisions of the Telecommunications Law, the fixed incumbent operator PTK is deemed to have SMP in the market for public fixed telephone networks and services, while its mobile subsidiary, Vala, has SMP in public mobile services. In Montenegro, by the provisions of the previous Telecommunications Law of 2000, Crnogorski Telekom was deemed to have SMP the markets for fixed networks and services and for Internet services, while the two mobile operators, T-Mobile and Promonte, in mobile networks and services. No regulatory obligations had been applied to mobile operators. The new Law on Electronic Communications adopted in July 2008 contains transitional provisions that designate Crnogorski Telekom as having SMP in the markets for fixed voice telephone networks and services including the markets for data transmission services and leased lines. Under the same provisions, all fixed and mobile network operators are deemed to have SMP in the markets for call termination in their respective networks, while the national broadcasting operator in the market for broadcasting transmission services, without specifying the applicable remedies.

## E. Competitive safeguards

The sections below address the implementation of competitive safeguards which constitute the basic mechanisms enabling competition when a national market is being liberalised.

The implementation of competitive safeguards is still in the early stages and depends on the capacity and expertise of the NRAs. As demonstrated in the table below, only Croatia, FYROM and Turkey, have made significant progress, while other countries are lagging behind.

	HR	MK	TR	AL	BA	ME	RS	XK
Carrier selection (CS)	●	●	●	○	●	●	○	○
Carrier pre-selection (CPS)	●	●	●	○	●	●	○	○
Number portability - fixed	●	●	○	○	○	○	○	○
Number portability - mobile	●	●	○	○	○	○	○	○
RIO Fixed	●	●	●	●	●	●	○	●
RIO Mobile	●	○	●	○	○	○	○	○
RUO	●	●	●	○	○	○	○	○
Wholesale broadband access (WBA)	●	●	●	○	○	○	●	○
Wholesale line rental (WLR)	○	○	○	○	○	○	○	○
MVNO	○	○	○	●	○	○	○	●
National roaming	●	○	●	●	●	○	○	○
Regulatory cost accounting - fixed	○	●	○	○	○	○	○	○
Regulatory cost accounting - mobile	○	●	○	○	○	○	○	○
Legend: ● implemented - ○ not implemented - ● commercial offer								

Table 5 - Implementation of competitive safeguards

1. Carrier selection and pre-selection

Carrier selection (CS) and carrier pre-selection (CPS) are among the basic mechanisms enabling competition at the service level. CS allows a subscriber, who is connected to the incumbent operator's network, to choose a competitive operator to make local calls, long-distance calls, or international calls by dialling a carrier selection code. When CPS is available, the subscriber can make a permanent (or semi-permanent) selection of an alternative operator for all calls or certain types of calls.

CS/CPS has been implemented in Croatia, FYROM, Turkey, Bosnia & Herzegovina and Montenegro.

Country	Carrier selection/pre-selection			
	Local calls	National	International	Calls to mobile
Croatia	July 2006 (CS) Jan 2005 (CPS)	July 2006 (CS) Jan 2005 (CPS)	July 2006 (CS) Jan 2005 (CPS)	July 2006 (CS) Jan 2005 (CPS)
FYROM	May 2008	January 2007	January 2007	January 2007
Turkey	Not available	April 2006	April 2006	April 2006
Albania	Not available	Not available	Not available	Not available
Bosnia & Herzegovina	July 2007	July 2007	July 2007	July 2007
Montenegro	December 2007	December 2007	December 2007	December 2007
Serbia	Not available	Not available	Not available	Not available
Kosovo	Not available	Not available	Not available	Not available

Table 6 - Availability of carrier selection and carrier pre-selection

In Croatia, CS/CPS has been implemented by the incumbent operator in January 2005 for all types of calls: local, national, international and mobile numbers. In practice, however, alternative operators were offering CPS from January 2005 and CS – only from July 2006. Currently there are four providers offering CPS services and two providers offering CS services.

In FYROM, CS/CPS has been available in the fixed network since January 2007 for national, international and calls to mobile numbers. In May 2008, the NRA amended Makedonski Telekom's RIO to extend CS/CPS to local calls. So far, only CS services are being offered by two alternative providers.

In Turkey, CS/CPS has been available in the fixed network since the second half of 2006 for long-distance and international calls, as well as for calls to mobile numbers. It is not yet available for local calls. There are 11 providers offering CPS and eight providers offering CS.

In Bosnia & Herzegovina, CS/CPS was introduced in July 2007 but is still at an early stage with only two alternative operators offering CS services.

In Montenegro, CS/CPS was introduced in December 2007 and applies to both fixed and mobile networks. However, since the incumbent operator has not yet been obliged to include CPS in its RIO, service providers are required to negotiate terms and conditions with Crnogorski Telekom on commercial basis. CS services are offered commercially by three providers.

In Albania, CS/CPS was imposed as a regulatory obligation on Albtelecom, but implementation is not foreseen until 2009. However, Albtelecom's users have been able to use prepaid calling cards from service providers for national and international calls since 2002.

The introduction of CS and CPS is not yet foreseen in Serbia. There also is no clear timeframe for the implementation of CS/CPS in Kosovo, although a public consultation is planned for 2008.

2. Number portability

Another important competitive safeguard is number portability, which enables a subscriber to maintain the telephone number when changing the operator. This is particularly important for business users, for whom a change of telephone number may be associated with potentially high transaction costs.

Article 30 of the Universal Service Directive requires all operators of publicly available mobile and fixed telephone services to provide number portability. It also must be available for both geographic and non-geographic numbers.

Only Croatia and FYROM have so far implemented number portability for fixed and mobile networks.

Croatia is the first country in the region that has successfully implemented number portability for fixed and mobile numbers. Fixed number portability has been available since July 2005. Mobile number portability was delayed until October 2006 because of the technical complications. As of first quarter 2008, the Croatian NRA reported nearly 200,000 ported fixed numbers and over 41,000 ported mobile numbers.

In FYROM, number portability in fixed and mobile network was foreseen from July 2007 but was delayed because of the complications in the procurement procedures for the centralised database. Number portability in both fixed and mobile networks was finally implemented in September 2008.

Turkey adopted a regulation on number portability in February 2007. Following the implementation of the centralised reference database in May 2008, number portability is to be implemented by November 2008 for mobile networks and by May 2009 for fixed networks.

In Albania, no decision on the implementation of number portability has been adopted so far. The new Electronic Communications Law stipulates that it should be implemented by June 2009.

No clear deadlines have been established for the implementation of number portability in Bosnia & Herzegovina, Montenegro, Serbia and Kosovo.

Comparative information was collected to show where VoIP providers are allowed to use geographic and non-geographic numbers from the national numbering plan and where they are allowed to port such numbers to or from another operator. In most cases, because general number portability is not implemented, it is not available for VoIP. Croatia and Montenegro have created dedicated number ranges for non-nomadic<sup>53</sup> voice, respectively 075 and 078.

### 3. Reference interconnection offers

One of the key factors in enabling a competitive telecommunications market is ensuring the availability of a reference interconnection offer (RIO) from the incumbent operators in transparent and non-discriminatory manner.

With the exception of Serbia, RIOs have been established and published by the fixed incumbent operators in all jurisdictions. Nevertheless, while considerable work has been undertaken on the preparation and approval of RIOs across the region, there are a significant number of gaps -- especially for RIOs of MNOs.

In Croatia, RIOs have been published by fixed and mobile operators with SMP since February 2005. The RIO of the fixed incumbent operator, however, only applies to the interconnection with fixed networks, while mobile operators have to negotiate interconnection on commercial terms.

In FYROM, the fixed incumbent operator's RIO has been available since February 2006. In April 2008, the NRA approved, with changes, the RIOs for the MNOs with SMP. Both MNOs have appealed against the changes of the NRA. The RIOs will be published following the final decision on the appeals.

In Turkey, RIOs are published by fixed and mobile operators with SMP.

In Albania in March 2008, Altelecom and the two MNOs with SMP, AMC and Vodafone, submitted their first RIOs to the regulator for approval. Altelecom's RIO was approved by the NRA in August 2008 and published on September 16, 2008. A decision on the compliance of RIOs of the two mobile operators is pending.

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<sup>53</sup> The term 'nomadic services' refers to services where the user can connect their VoIP phone to any network termination point and make or receive calls using the same number. Therefore, nomadic VoIP services are provided independently of the physical location of the user. However, the user may be required to specify a particular physical location and corresponding network termination point as their 'home' location when signing the contract with the provider of the nomadic VoIP service in order to enable the provision of caller location information to the emergency services.



In Bosnia & Herzegovina, RIOs for the three fixed incumbent operators have been available since November 2006.

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

In Kosovo, the first RIO of the fixed incumbent operator, PTK, was approved by the NRA in January 2007.

In Serbia, the first draft RIO of the fixed incumbent operator was prepared in August 2008, but it has not been approved by the NRA and not published yet.

#### 4. Reference unbundling offer

Access to unbundled local loops of the network connecting individual subscribers with the nearest exchange has a particular significance for alternative operators. Access networks often represent half of the investment by the fixed network operator and although competitive access technologies are emerging, the copper access network infrastructure is still difficult to duplicate. For this reason, the obligation for local loop unbundling (LLU) is seen as one of the key enablers of competition. In addition, new technologies, such as xDSL, have enabled transmission of digital data over copper loops at broadband speeds and competitive access to this resource has been deemed as an indispensable instrument to speed up the growth of broadband access.

In the EU, this topic was deemed sufficiently important to justify the adoption of Regulation (EC) No. 2887/2000 of the European Parliament and of the Council of December 18, 2000 on unbundled access to the local loop, which also set out a requirement for the publication of a reference unbundling offer. The regulation was later replaced by a corresponding requirement in article 9.4 of the Access Directive 2002/19/EC. The existence of a reference unbundling offer (RUO) is therefore an indication that the local loop facilities of the incumbent operator are being made available to alternative operators under non-discriminatory terms and conditions.

There are many different technical alternatives for how local loop unbundling can be implemented. The two main alternatives are:

- full access to unbundled loops, whereby the alternative operator takes full control over the loop.
- shared access, whereby the alternative operator normally gets access to the xDSL channel in the high frequency band, while the incumbent keeps the normal telephony channel in the lower band.

Only three countries in the region have implemented LLU and have RUOs in place: in Croatia since October 2005, in FYROM since May 2006; and in Turkey since November 2006.

Given the late and inconsistent introduction of LLU across the region, the number of loops unbundled so far is small, being almost exclusively in Croatia. The Croatian NRA reported slightly over 55,000 unbundled loops as of first quarter 2008, with five LLU agreements in place. Although Turkey has had an RUO since November 2006 and there are nine LLU agreements, so far only about 120 loops have been unbundled on a network of around 18 million lines. In FYROM, there has been only one agreement on LLU between Makedonski Telekom and the major alternative operator On.Net, owned by Telekom Slovenije.

In Bosnia & Herzegovina, RUOs for the three fixed incumbent operators are to be published in October 2008. No clear deadlines have been established for the implementation of local loop unbundling in Albania, Montenegro, Serbia and Kosovo.

#### 5. Wholesale broadband access

In addition to LLU, another option for access to the local loop is based on a wholesale bitstream access product, whereby the incumbent operator hands over the digital traffic over the xDSL channel according to an agreed standard.

There were relatively simple models for bitstream access at first, but these have been developed by operators and NRAs into complex systems that offer a more flexible range of xDSL traffic handover

options. There are four common bitstream options, representing typical handover points between an incumbent operator and an alternative operator or ISP: DSLAM level; ATM/Ethernet level; IP level; and end-to-end resale.

As with LLU, the availability of bitstream varies considerably across the monitored countries. In Croatia and Turkey, for example, multiple options for bitstream access are available on the basis of regulated reference offers.

In Croatia, reference offers for bitstream access have been available since December 2007, including DSLAM level and IP level handover. However, T-Com had been providing an ADSL Transport service, similar to IP level handover since 2006.

While an obligation to provide bitstream access was imposed on Turk Telekom as early as 2004, the first reference offer was available only in August 2007. It was further modified in early 2008 to include two forms of bitstream access and a resale product.

In FYROM, Makedonski Telekom offers wholesale ADSL on a commercial basis, providing IP level handover and a resale product. A new regulation on the provision of wholesale bitstream access and resale services is expected to be adopted shortly, following a consultation concluded by the NRA in September 2008.

In other countries, this competitive safeguard is not yet a regulatory priority. In Serbia, Telekom Srbija, however, offers wholesale ADSL on a commercial basis. In Albania, Bosnia & Herzegovina, Montenegro and Kosovo, no form of bitstream access is available on a regulated or commercial basis.

## 6. Wholesale line rental

An incumbent operator may rent its subscriber lines on a wholesale basis to alternative operators that would then 'resell' the subscriber line to the end user, usually known as wholesale line rental (WLR). In conjunction with carrier pre-selection ('all calls' option), WLR enables alternative operators to end the billing relationship between the incumbent and the end user.

To date, WLR has not been imposed upon and is not commercially available from any SMP operators in any of the monitored countries.

## 7. National roaming, mobile access and call origination

When a country decides to issue additional frequency licences to new mobile operators, it may also decide to provide some regulatory assistance to the new entrants by requiring the established operators to allow national roaming on their networks. National roaming requirements normally are not intended to be a permanent solution and have some conditions attached, such as the achievement of a minimum level of the network coverage before national roaming is permitted and a maximum duration period.

Croatia and Turkey introduced such national roaming requirements to facilitate the entry of new mobile operators. Bosnia & Herzegovina also has national roaming requirements, but these are in order to ensure full national coverage for the three MNOs.

In FYROM and Serbia, the new entrant mobile operators (both are subsidiaries of mobilkom Austria) have reached commercial agreements on national roaming with the established mobile operators.

Another way of increasing competition in the mobile market is to impose wholesale access obligations, where justified on a regulatory basis, on MNOs. In some countries, there is a specific obligation for MNOs to provide access to mobile virtual network operators (MVNO) and service providers, in addition to the general obligation to negotiate interconnection.

In Croatia, for example, MNOs with SMP have been required to provide open access to their networks. However, there are no specific obligations on access for service providers.

In Albania, an Access and Interconnection regulation provides an obligation on MNOs with SMP to provide access to networks for MVNOs.

In Kosovo in May 2007, the NRA adopted a policy framework for MVNO operators and issued licences to two MVNOs. While there are no legal obligations for access, MVNOs can be launched on the basis of a commercial agreement with one of the two MNOs. Two MVNO licences were issued in June 2008, representing the first commercial reality in this domain for the region.

#### 8. Price control and regulatory cost accounting for fixed and mobile wholesale prices

When an operator is designated as having SMP in a wholesale market, fixed or mobile, NRAs are entitled under article 13 of Access Directive 2002/19/EC to impose a cost accounting obligation to ensure that operators subject to price regulation follow fair, objective, and transparent criteria when allocating their costs to services. However, the Directive does not define which cost accounting methodology is to be used.

Because the implementation of a sound cost accounting methodology is typically a time consuming and resource intensive process, both for the NRAs and the regulated SMP operators, most of the NRAs in the monitored countries so far have opted for the use of some form of benchmarking-based price controls and not yet implemented cost-based pricing of regulated wholesale services.

A few NRAs, though, have imposed cost-orientation obligations for wholesale services and are implementing cost-based pricing.

In FYROM, for example, initial regulated fixed interconnection and LLU charges based on a benchmarking methodology were approved by the NRA. From May 2008, the regulator amended Makedonski Telekom's RIO and RUO to introduce cost-oriented charges based on forward-looking top-down LRIC methodology. The termination prices of the two mobile operators with SMP are set based on a FDC methodology with current cost.

In Turkey, wholesale leased lines are priced on the basis of long-run average incremental costs (LRIC). Local loop prices are based on a retail-minus approach.

The introduction of LRIC pricing for fixed and mobile interconnection is foreseen in Croatia and Albania.

#### F. Universal service

All monitored countries have some form of universal service being delivered by one or more operator, often based on existing concessions or licences. However, only a few countries have a universal service regime that is fully in line with the EU regulatory framework.

##### 1. Scope of universal service and provider designation mechanism

Universal Service Directive 2002/22/EC defines universal service as the "minimum set of services, of specified quality to which all end-users have access, at an affordable price in the light of national conditions, without distorting competition". The current scope of universal service includes: connection to the public telephone network at a fixed location and access to publicly available telephone services (PATS); provision of directories and directory enquiry services; public payphones; and special measures for disabled users.

The Universal Service Directive requires any designation of a universal service (US) provider to be carried out by "an efficient, objective, transparent and non-discriminatory designation mechanism, whereby no undertaking is a priori excluded from being designated". These rules allow the designation of one or more undertakings to guarantee the provision of universal service and even different undertakings or sets of undertakings to provide different elements of universal service or to cover different parts of the national territory. Furthermore, according to Article 8 and Recital 8 in the Universal Service Directive, mobile networks may be used for the provision of universal service. This could reduce the cost of universal service provision.

Several of the monitored countries have defined a scope of universal service in their legislation that broadly corresponds to the requirements of the Universal Service Directive. However, only Croatia and the FYROM have implemented the universal service rules in a technology neutral way, which would allow the participation in the provision of universal service by mobile operators.

Croatia has a comprehensive universal service regime in place, and T-HT has been designated as USO provider for a 5-year period from November 2005.

In FYROM, the NRA has launched a tender procedure to designate one or more universal service providers. In the interim, some of the USO elements have been provided by the incumbent operator, Makedonski Telekom, within the scope of its concession agreement that was terminated in September 2008.

In Turkey, the universal service legislation has not been applied in practice and universal service is still provided by Türk Telekom in line with requirements set out in its concession agreement. The Universal Service Law 2005, which has not yet been implemented, envisages a tender procedure for the designation of universal service providers.

In Albania, under the new Law on Electronic Communications adopted in May 2008, the regulator can designate one or more universal service providers based on a public tender procedure, subject to the Ministry approval. However, no designation mechanism has been established yet.

In Bosnia & Herzegovina, the requirement to offer the minimum scope of universal service is covered by the terms of licences of the three incumbent operators. A draft regulation covering the scope of the universal service, the designation mechanism for the universal service providers, funding and the quality of service requirements has been submitted by the NRA to the Council of Ministers for approval.

Legislation is still under preparation for a universal service framework in Montenegro. The NRA will prepare the Draft Rulebook for Universal Service by the end of 2008, following an ongoing public consultation.

Serbia has only set out general requirements that do not include specific details for access to networks and telephony services. The Ministry for Telecommunications and Information Society intends to define the scope of universal service more specifically at a later date.

In Kosovo, free access to emergency services is a universal service condition in the licence of all providers. The Telecommunications Sector Policy envisages adoption of a more comprehensive universal service framework.

## 2. Universal service funding

Article 12 of the Universal Service Directive 2002/22/EC requires NRAs to calculate the net cost of universal service provision where they consider that it may represent an unfair burden on the provider. According to Article 13, NRAs may either introduce a public funding mechanism for compensation or share the net cost between operators.

In practice, none of the monitored countries is compensating the universal service provider for the net cost of the universal service.

Croatia, FYROM and Serbia have adopted legislation that will allow them to introduce compensation schemes in the future. Albania, Bosnia & Herzegovina, Montenegro and Kosovo are in the process of adopting legislation that will allow compensation of universal service providers' cost.

In Turkey, contributions to the universal service fund are collected from several industry sources by the Treasury and allocated to the budget of the Ministry of Transport, although no payments have been made yet to the universal service provider.

## 3. Quality of service

Article 11 of the Universal Service Directive (2002/22/EC) states that NRAs may set specific quality of service (QoS) targets for key performance indicators (e.g. repair time for line faults) for the designated universal service providers. The standards are set out in Annex III to the Directive, specifying ETSI EG 201 769-1 version 1.1.1 (April 2000).

QoS obligations exist in most of the monitored countries and the ETSI standards are followed for the method of measurements. However, only one or two of the countries monitor and ensure (e.g., with use of

penalties) compliance, as was the intention of the Universal Service Directive. Some countries have published the requirements or the methodologies for measurements without providing the actual results.

The NRA in Montenegro intends to include QoS targets in the Draft Rulebook for Universal Service by the end of 2008, following an ongoing public consultation.

In Turkey, mobile network operators are also obliged to fulfil QoS targets.

## G. Fixed retail telephony tariffs

The reference date for the information in this section is April 1, 2008.

In a traditional monopoly, fixed monthly charges and local call tariffs were often priced significantly below cost in an effort to make telephony affordable for a large number of consumers. Because they had monopoly rights, the operators could recoup any lost revenue by charging more for long distance and international calls. Such calls were primarily made by business, so the pricing was intended to be a transfer from business to consumers. Such an approach becomes untenable with the introduction of competition. Therefore, the need for tariff rebalancing is well understood. Governments have generally allowed several years for the transition. In order to soften the consequences for consumers, it has been common to differentiate tariffs between businesses and consumers, most often in monthly rentals. At the end of the process, businesses and most consumers will normally pay less for their total communications bill and or will use more communications services.

### 1. Tariff rebalancing and regulation of retail tariffs

Rebalancing of the incumbent operator's retail tariffs focuses on fixed voice telephony in all countries. FYROM also covers leased lines and telegraph & telex services. Albania also covers leased lines.

All countries have included a requirement for formal advance notification of the new retail prices to the NRA with a notice period ranging from 8 to 30 days.

Assessment methodology: some countries are using a price cap mechanism to achieve tariff rebalancing while (i) Croatia has a price squeeze test based on the SMP operator's own costs (retail prices have to cover the SMP operator's own network and commercial costs) and (ii) Serbia and Kosovo are using a cost based assessment. A cost based approach is theoretically closer to the philosophy of the EU regulatory framework while the price cap has the advantage of being easier to use. The specific details of the approach applied by the regulators in Serbia and Kosovo are not available, but it is understood that none of them has implemented a comprehensive costing model.

Montenegro is the only country that has completed tariff rebalancing. In all the other countries, tariff rebalancing is ongoing. See the next section for the countries that have opted for the price cap approach.

### 2. Retail price caps

Five of the eight countries have opted for a price cap approach. The cap includes international calls which are usually the first services to benefit from competition. Consequently, one may question the pertinence of including international calls or alternatively the effectiveness of competition.

FYROM has included a price cap mechanism in Makedonski Telekom's concession from January 1, 2001 to December 31, 2018. The cap has been fixed at Retail Price Index (RPI) + 6% for one off connections and monthly subscription fees. Additionally, there is Consumer Price Index (CPI) + 35% for local and long distance calls and CPI+25% for monthly residential subscription fees. Following an amendment to the Law on Electronic Communications adopted in July 2008, the concession agreement has been cancelled in September 2008 and the price cap is no longer valid. The NRA stated that it may impose a new price cap regulation, once it has carried out its analysis of the retail fixed telephony markets.

Turkey has included a price cap mechanism from January 1, 2007 to December 31, 2008 (with a possible extension of one year). The cap has been fixed at CPI + 3.3%.

Albania concluded a consultation on a rebalancing methodology with comments due in May 2008. The NRA has to make a formal proposal to the Ministry, which will be considered for approval by the Council of

Ministers. In the meantime, a price cap has been implemented from September 1, 2008 to August 31, 2010. The price cap has been set at RPI-RPI (effectively 0). Sub-caps have been defined: (i) RPI+20% for monthly rental residential, (ii) RPI+10.5% for local calls, (iii) RPI-15% national calls and (iv) RPI -15% for international calls. Additionally, a price cap mechanism has been imposed on mobile operators.

Montenegro considers that it completed its tariff rebalancing by August 31, 2007. A consultation on a draft rulebook for tariffs in public telecommunication service (prepared with technical assistance from the European Bank of Reconstruction and Development (EBRD)) is ongoing. A price cap method has been defined but has not been applied yet.

### 3. Call charging system

In Croatia, there are two call charging systems. In one of them (used by tariff plans Start and Mini), the minimum charging unit is 60 seconds for the calls on the national network, but for calls to mobile networks and the international calls the minimum charging unit is 15 seconds. The other tariff plan called Super has two different alternatives. One applies the minimum charging unit of one second with a call setup cost. The other alternative has a minimum charge of one minute and thereafter per second charging. These two methods apply to all type of calls.

In FYROM, the minimum charging unit is 60 seconds.

In Turkey the minimum charging unit is 60 seconds for local, long distance and international call and 20 seconds for fixed to mobile. Turkey has a Special Communications Tax of 15%, which applies to all charge elements related to fixed telephony. The tax applies equally to residential and business subscribers.

In Albania, the charging methodology for local calls is still based on a charging unit of two minutes in peak time and three minutes in off-peak hours. The reported values are for residential users. Prices for business users are 50% higher than those for residential users. The proposed methodology for tariff rebalancing that has been under public consultation, introduces the obligation on Albtelecom to change the charging system for local calls from units of 2 and 3 minutes to per-second billing, starting from the second 6-month period under the regulation. For long distance, international and fixed to mobile, the charging unit is already on a per second basis.

In Bosnia & Herzegovina, the charging unit is on a per second basis.

Montenegro applies the charging unit on a per second basis but with a minimum charge of 1 minute. The aim is to move to the same pricing for residential and business customers.

In Serbia, the charging system is based on pulses. The pulse duration varies depending on the type of call: for local calls – one pulse is 1 minute in peak time and 2 minutes in off-peak; for long distance calls - one pulse is 12 seconds in peak time and 24 seconds in off-peak; for calls to mobile networks – one pulse is 2 seconds in peak time and 4 seconds in off-peak; for calls to a fixed network in Montenegro 2 seconds and to a mobile network in Montenegro 1 second.

In Kosovo, the charging system is based on pulses. The pulse duration varies depending on the type of call: for local and long distance calls – one pulse is 4 minutes, for fixed to mobile – one pulse is 15 seconds and for international calls – one pulse is 9.2 seconds.

The effect of these charging mechanisms on the minimum price for a local call is presented in Figure 15 below.

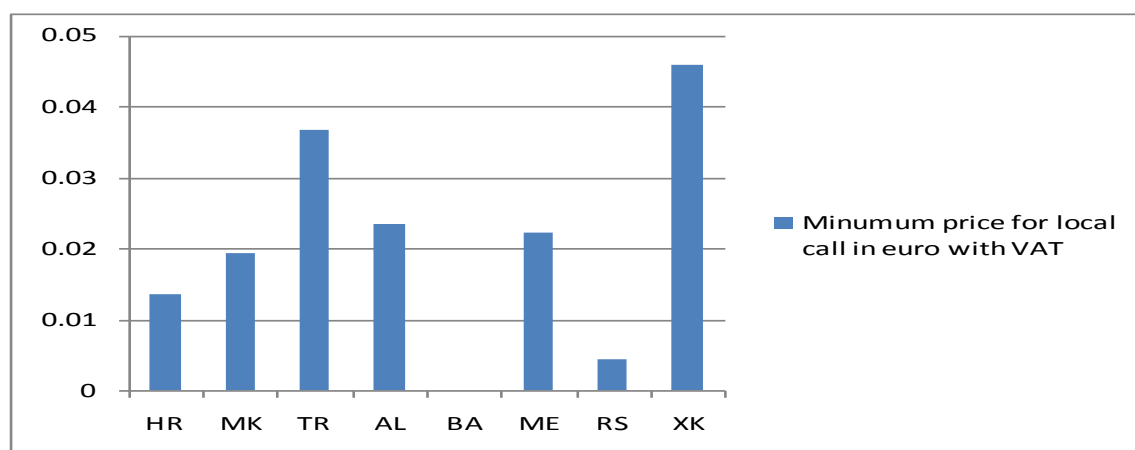


Figure 15 – Minimum price for a local call

#### 4. Monthly subscription fees for residential and business users

This section reviews the monthly rental prices for PSTN lines in the fixed network for residential subscribers in nominal euro with value added tax included. The first item is related to residential and the second to business subscribers. The classification starts from the cheapest to the most expensive standard residential monthly rental.

Country	Standard residential monthly rental	Low usage residential monthly rental	Business monthly rental
Serbia	< €1	-	Same as residential + 150 pulses
Albania	< €2	-	€6.7
Bosnia & Herzegovina	€4 (with 160 min)	< €2 (with 160 min)	€ 8.3 (with 160 min)
Montenegro	€5 (with 100 min)	€2.5	Same as residential
FYROM	€6.5 (with 100 min)	€3.6	€11.5
Turkey	€6.75	€4.25 (with 100 min)	Same as residential
Kosovo	€7 (with 250 pulses)	€3.5	€ 21.7 (with 2500 pulses)
Croatia	€8.3	€4.1	€9.7

Table 7 – Monthly subscription fees

Serbia and Albania do not have low usage residential monthly rental but their standard monthly rates are lower than the low usage alternatives of the other countries.

Residential subscribers pay less than business subscribers in most of the countries, particularly in FYROM, Albania, Bosnia & Herzegovina and Kosovo. Turkey, Montenegro and Serbia have the same charges for both subscriber categories after eliminating the difference caused by VAT.

On the evolution of the prices for residential monthly rental, there have been no major changes since July 2007 with the exception of: (i) Turkey where prices have decreased, (ii) Bosnia & Herzegovina and Kosovo where prices have increased.

On the evolution of the prices for business monthly rental, there have been no major changes since July 2007 with the exception of Turkey with significant price reductions.

These prices are expressed in euro. However, prices are generally lower in South East Europe than the EU average. The relationship between national price levels may be expressed through purchasing power parity (PPP) indexes, which can be expressed as relative price levels. Taking these price levels into account means that the prices for consumers in this region appear higher than that expressed through the nominal exchange rate. The chart below shows the differences in standard monthly rentals when presented in nominal euro and in PPP values.

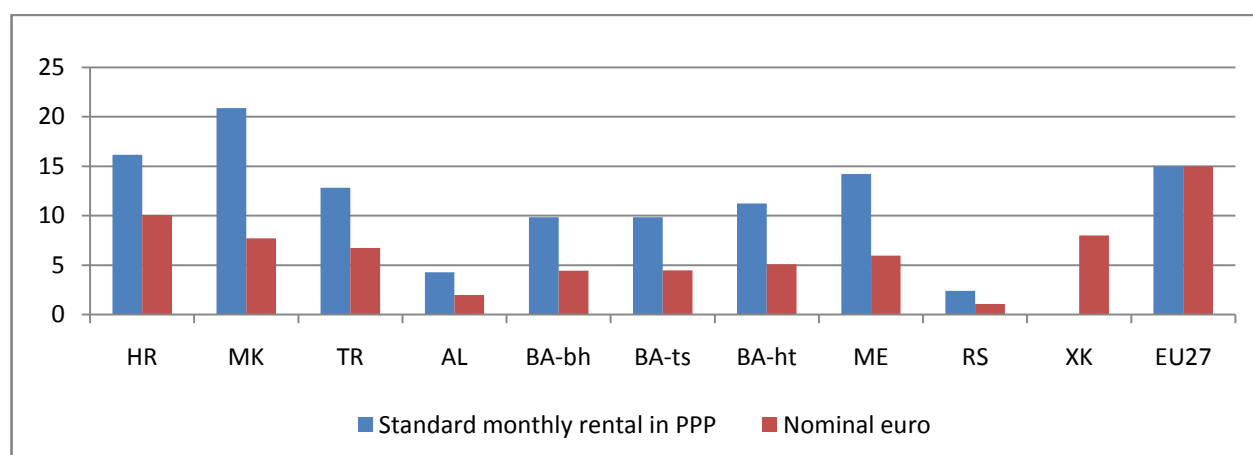


Figure 16 – Standard monthly rental in PPP and nominal euro

## 5. One-off connection charges

This section analyses the initial costs for the installation (new line connection) and reconnection for residential and business subscriptions. The installation (new line connection) costs are the cost of a new installation in a location that has not been connected before. The reconnection cost is the cost for the connection of an existing subscriber line to a new subscriber, for example, when a new family takes over an apartment where the previous occupant was already connected. The classification starts from the cheapest to the most expensive reconnection charge:

Country	Residential (including VAT)		Business (excluding VAT)	
	New line connection charge	Reconnection charge	New line connection charge	Reconnection charge
FYROM	€20	0	Same as residential	Same as residential
Bosnia & Herzegovina	€30 to €45	0	Same as residential	Same as residential
Kosovo	€9	< €2	Same as residential	Same as residential
Turkey	< €4	< €4	Same as residential	Same as residential
Serbia	€61	€4.5	€122	Same as residential
Croatia	€70	€8	Same as residential	Same as residential
Montenegro	€55	€11	Same as residential	Same as residential
Albania	€115	€115	Same as residential	Same as residential

Table 8 – Connection charges

Contrary to the monthly subscription fees, there are no differences between residential and business customers with the exception of Serbia where business customers pay twice the price for a new line connection.

In general, a new line connection is more expensive than a reconnection charge with the exception of Turkey and Albania where the prices are similar (but also the highest in Albania). The reconnection charges vary from 0 (FYROM, Bosnia & Herzegovina), < €5 (Kosovo, Turkey and Serbia), < €11 (Croatia and Montenegro) up to €115 in Albania. The new line connection charges vary from €20 to €70 with lower prices in Kosovo (€9) and Turkey (< €3) and are the highest in Albania (€115).

There is no evident relationship between the price level of the connection charges and the monthly rental fees: Albania has one of the cheapest monthly rental fees (<€2) but the most expensive connection charge (€115) while Serbia, with a monthly rental fee of < €1, has a reconnection charge of €4.5. In Croatia, the monthly rental fee is roughly the same as the reconnection charge (€8) while in Montenegro the monthly rental fee (€5) is double that of the reconnection charge (€11). FYROM and Bosnia & Herzegovina have a monthly rental fee of around €6.5 and €4 respectively while the reconnection charge



is €0. Kosovo has a different approach with a cheaper reconnection charge (< €2 while the monthly rental fee is around €7). Turkey used to have the same pattern as Kosovo (low reconnection charge and a much higher rental fee) but since the decrease in price for monthly rental fees this difference has decreased (€7 monthly rental fee, with < €4 reconnection charge).

On the evolution of the prices since 2005, there have been few major changes, but in Kosovo and Bosnia & Herzegovina prices have dropped quite dramatically. The level in Albania is both high and unchanged.

6. Local fixed telephony tariffs of the incumbent and an alternative operator

In general, competition is in its infancy. In Turkey, local calls are only provided by the incumbent. In Serbia, there is no alternative operator. In Montenegro, the competitor is the third mobile operator (M:Tel) which also has a license for WIMAX. In Kosovo and in Croatia competition has been introduced via VoIP while in FYROM (Skopje) it is a mix of LLU and WiFi.

There is a considerable variation in the prices, with Croatia and Turkey being more expensive, while Serbia is the cheapest. Between July 2007 and April 2008, prices have remained stable with the exception of Albania and Montenegro where they have increased.

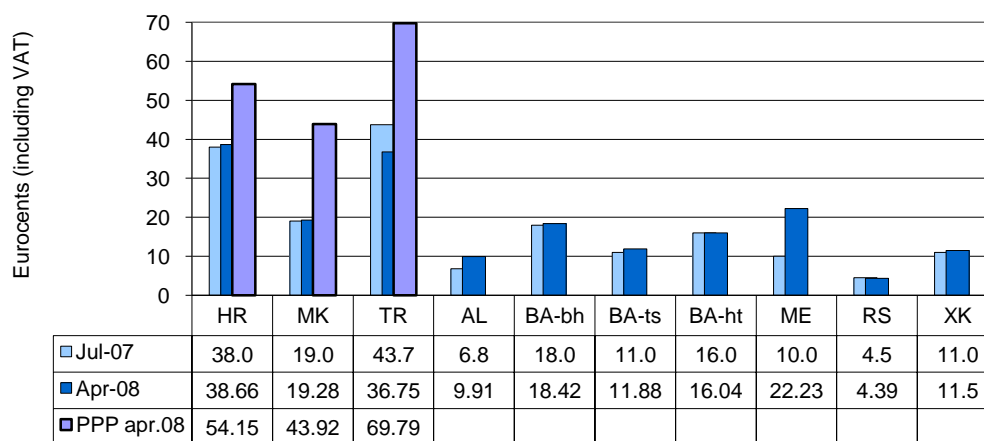


Figure 17 - Cost of a ten minute local call (2007-2008)

7. Long distance fixed telephony tariffs of the incumbent and an alternative operator

Between July 2007 and April 2008, there have been more changes in long distance tariffs than for local calls with increases and decreases in prices.

On the evolution of prices between July 2007 and April 2008, they have increased in Albania and Montenegro (same trend as for local calls). However, on a positive note, prices have decreased in Turkey and Bosnia & Herzegovina.

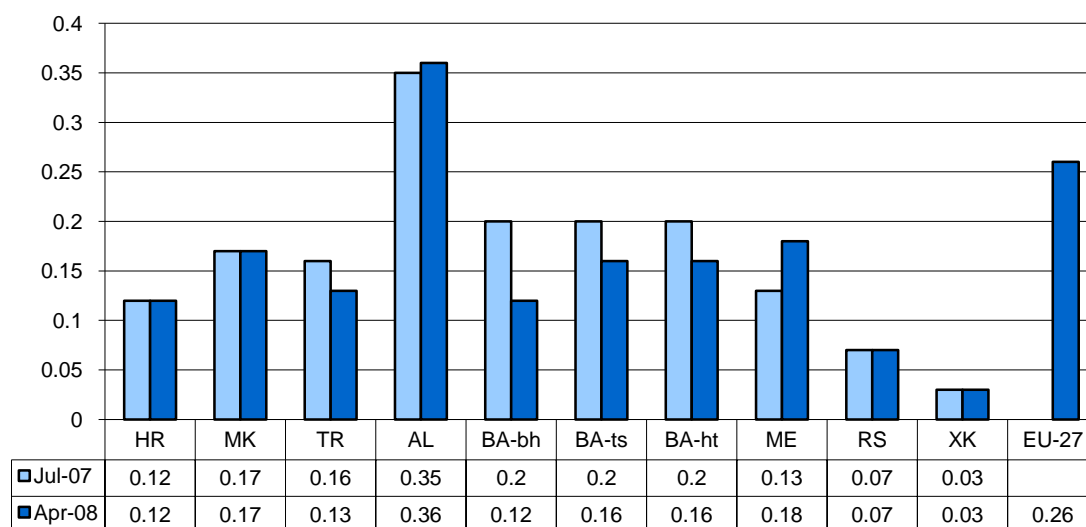


Figure 18 - Residential long distance charges for 3 minute calls

## 8. Fixed to mobile tariffs

In general, fixed to mobile prices are much more expensive than national long distance calls.

Based on a sample of 3 minute calls, the majority of the prices are between €0.4 and €0.6 with the lowest tariff in Bosnia & Herzegovina (<€0.3) and highest in Croatia (€0.8) and Albania (€1.14).

On the evolution of prices between July 2007 and April 2008, prices have (i) increased in Albania (same trend as for fixed local and long distance calls), (ii) decreased in Turkey (same trend as for fixed long distance calls) and (iii) decreased in Montenegro (opposite trend than for local and long distance calls).

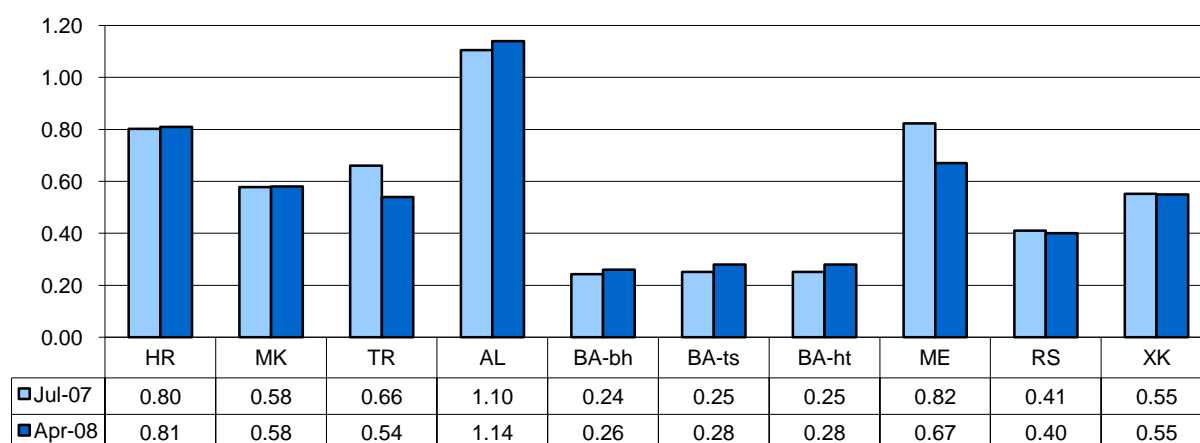


Figure 19 - Residential charges for 3 minute fixed to mobile calls

## 9. International tariffs

The report compares the cost of a 10 minutes call to the UK and to the USA for each country. There is considerable variation in the prices, with Bosnia & Herzegovina being more expensive while Turkey is the cheapest.

Between July 2007 and April 2008, there has been no increase in prices. Most of the prices have remained stable with decreases in (i) Turkey (where prices are already low – the same trend as for fixed long distance and fixed to mobile prices), (ii) Bosnia & Herzegovina (where prices are the most expensive

– same trend as for fixed long distance), (iii) Montenegro (proportionally the largest decrease – same trend as for fixed to mobile and the opposite trend than for fixed and long distance calls) and (iv) Serbia.

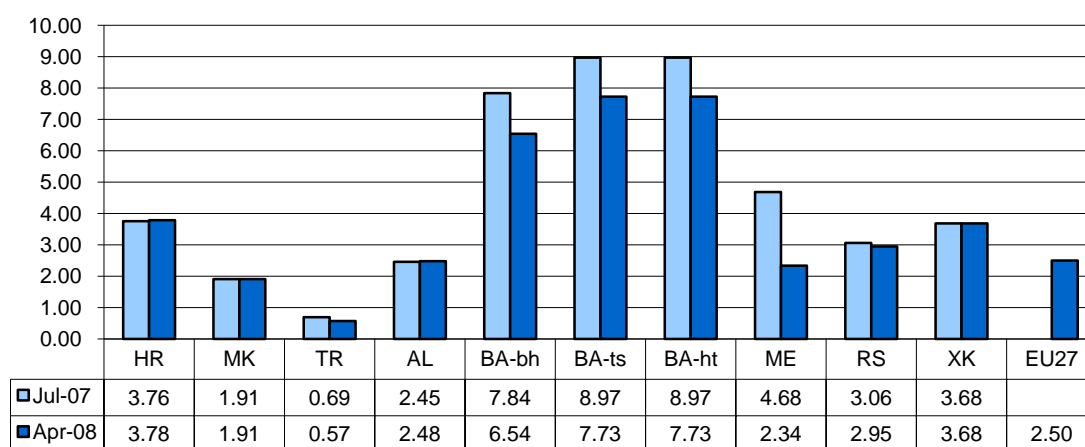


Figure 20 - 10 minute call to UK by using the incumbent operator for residential users

## H. Mobile retail tariffs

Mobile network operators provide a range of tariff options that are quite complicated and difficult to compare. Consumers have to take into account a significant number of parameters, including the initial activation charge, monthly subscription charge, peak and off-peak tariffs, “free” calls and text messages included in the package, volume-dependent tariffs, SMS tariffs, tariffs for calls within the same network (on-net calls), tariffs for calls to other mobile networks (off-net), calls to fixed networks and, of course, cross-subsidies for the handset.

In order to be able to make comparisons between its members states the OECD constructed a set of mobile tariff “baskets” building on its work in fixed telephony baskets. These baskets have been updated to better reflect changing usage patterns. The current basket is referred to as the 2006 version, while the previous basket is referred to as the 2002 version.

The European Commission adopted the OECD 2006 baskets in its 13<sup>th</sup> Implementation Report, reporting a wider range of data for operators and different tariff packages. It should be noted that the EC uses monthly and not annual results. While some critics have argued for the creation of a “Balkan basket” or set of baskets that might better reflect local usage patterns, this would make any comparisons with the EU or with OECD impossible. Indeed, it would be likely to make historical comparisons very difficult, unless the old results could be recalculated.

This report maintains the OECD 2002 basket in order to be able to present a historical comparison.

Between July 2007 and April 2008, there has been a significant decreasing trend for all types of usages in Albania, Serbia, and Kosovo (but the prices in Albania and Kosovo were the highest in comparison with the other countries). In Montenegro, prices have decreased slightly for all types of user (however, prices are already in the lowest range in comparison with the other countries). In FYROM, prices have also decreased but with a specific focus on low usage mobile users. In Turkey, prices have increased but specifically for medium usage mobile users. In Croatia, after recalculation of the baskets from July 2007 and April 2008, the cost of the basket is the same in national currency, but a small increase in euro due to exchange rate differences.

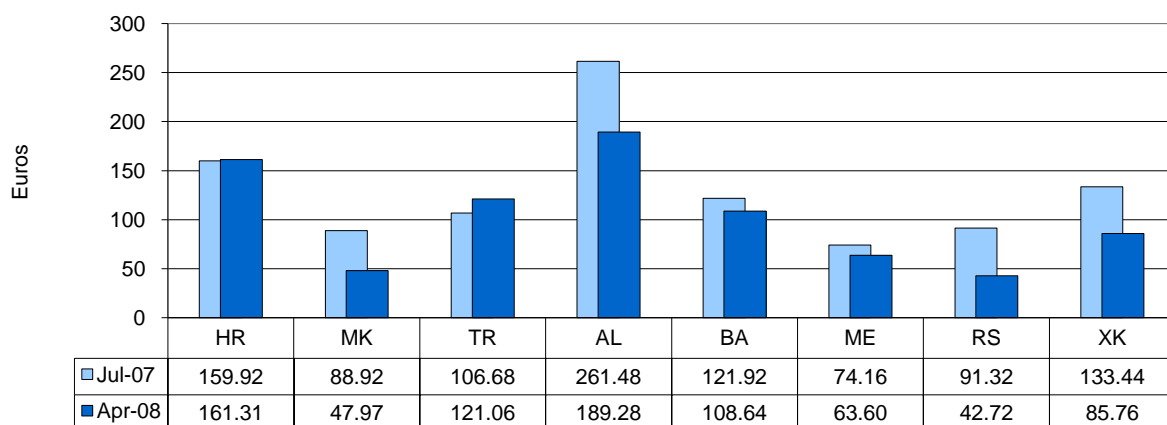


Figure 21 - Low usage mobile basket (2007-2008)

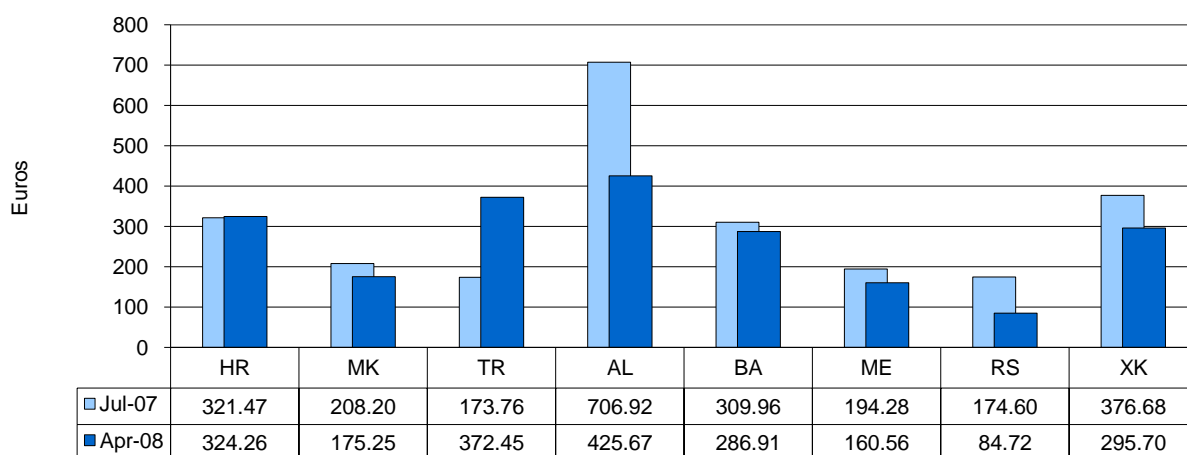


Figure 22 - Medium usage mobile basket (2007-2008)

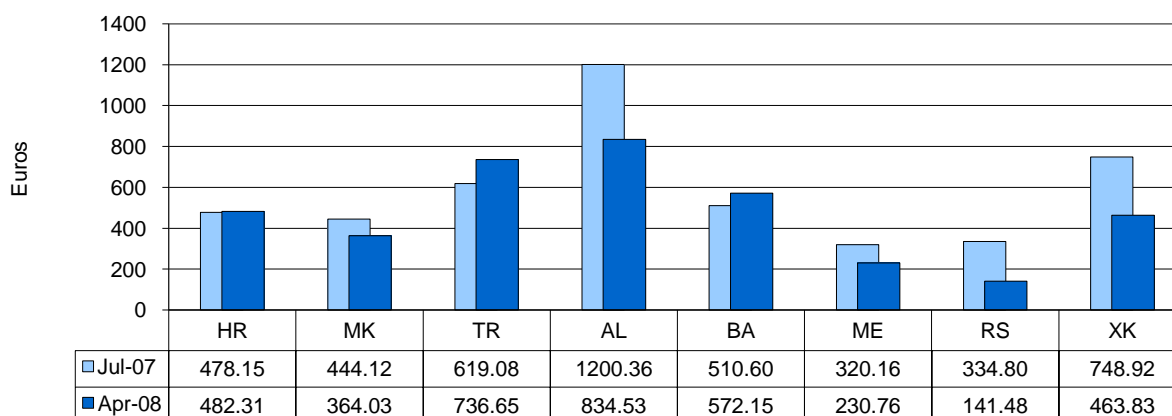


Figure 23 - High usage mobile basket (2007-2008)

I. Special cross-border arrangements for retail fixed and mobile tariffs

The political, economical and social events in the last fifteen years in South-Eastern Europe, in particular in the territory of the former Yugoslavia, created specific entities and territories some of which still have a provisional status. This has resulted in many special tariff arrangements that cross territorial boundaries. For example, there have been preferential rates between the Serb population in Bosnia & Herzegovina and Serbia. Similarly, there have been preferential rates for the Croatian population in Bosnia & Herzegovina and Croatia. Such arrangements are gradually being phased out and replaced by more conventional country tariffs.

However, there are still special tariff arrangements for calls from Montenegro to Serbia and Kosovo, and from Serbia to Montenegro and Republika Srpska in Bosnia and Herzegovina. It may be noted that calls from Serbia to Kosovo are still regarded as national calls in Serbia.

These remaining arrangements are probably more a result of common operator ownership rather than politics.

J. Leased lines retail tariffs

1. National leased lines

Leased lines are the building blocks for alternative networks that compete, directly or indirectly, with the incumbent operators' networks. In the following figures, the tariffs for national leased lines are shown for (i) 64 Kbps: 2 km and 200 km, (ii) 2 Mbps: 2 km and 200 km and (iii) 34 Mbps: 2 km and 200 km. All prices are annual and retail, excluding VAT and without any one-time or connection charges.

64 kbits/s short distance (2 km): Montenegro and Turkey are relatively cheap. Croatia and FYROM are expensive in terms of South-East Europe, but reasonable in terms of the EU while Albania, which has the highest price, is at the same level as the EU average.

On the evolution of prices between July 2007 and April 2008, they have remained relatively stable with decreases in Turkey (which already had the lowest prices of all countries), one operator in Bosnia & Herzegovina, and Serbia.

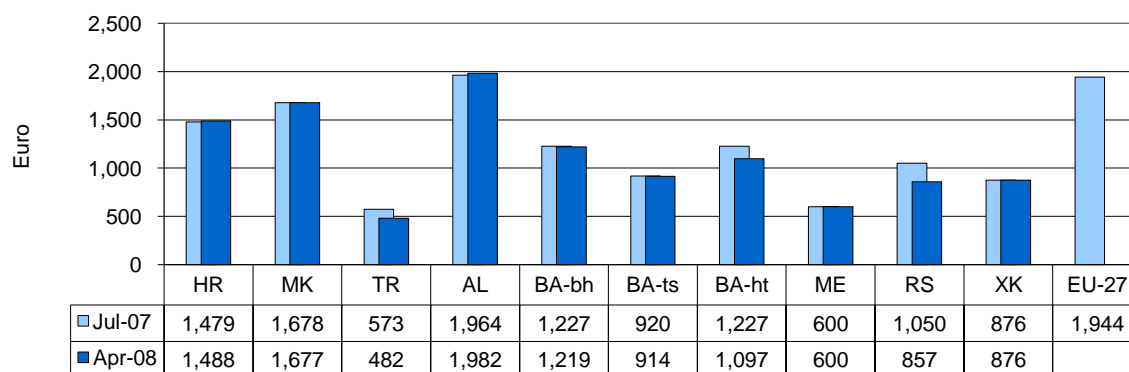


Figure 24 - Annual prices for a 2 km 64 Kbps leased line

64 Kbps long distance (200 km): the differences in the prices are similar to those for short distance (see above) but with prices in three countries (Croatia, FYROM, and Albania) above the EU average. Montenegro and Serbia are cheaper for long distance.

The evolution of prices between July 2007 and April 2008 is broadly similar to short distance with prices relatively stable with decreases in Turkey (which already had the lowest prices) and Serbia.

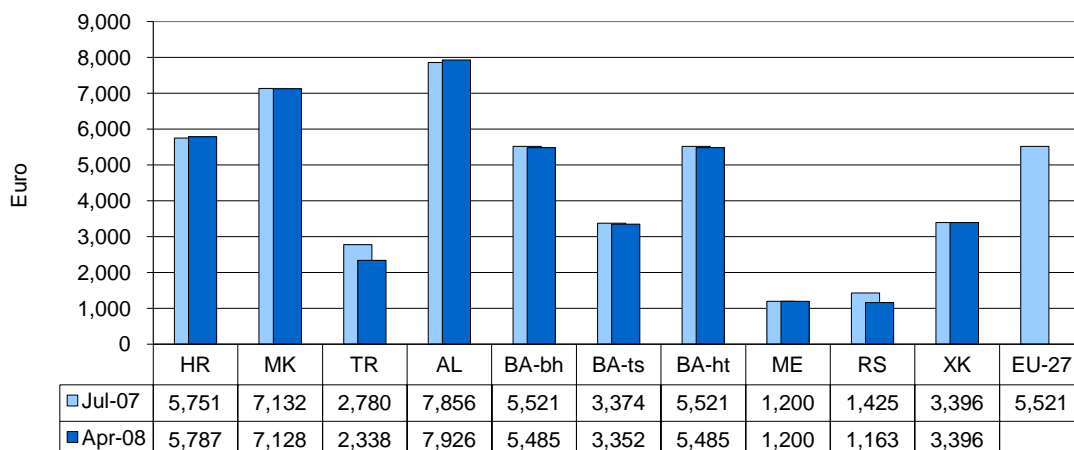


Figure 25 - Annual prices for a 200km 64 Kbps leased line

2 Mbps short distance (2 km): there is a significant difference between a group of cheaper countries (Turkey, Albania, Montenegro and Kosovo) with prices at half the EU average while the second group is more expensive with prices at or higher than the EU average (Croatia, FYROM, Bosnia & Herzegovina and Serbia). Albania offers the cheapest prices with Turkey while it has the most expensive prices for 64 Kbps.

On the evolution of prices between July 2007 and April 2008, they have remained relatively stable with a decrease in Turkey (which already had lower prices in comparison with other countries) and in Serbia. This trend is identical with the 64 Kbps.

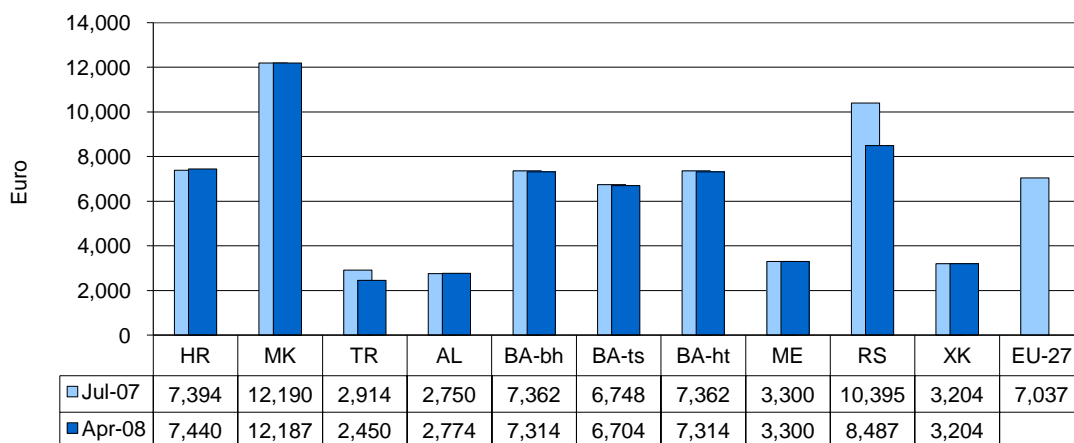


Figure 26 - Annual prices for a 2km 2Mbps leased line

2 Mbps long distance (200 km): the variations in the prices are broadly similar to short distance (see above) with the exception of Serbia being comparatively cheaper and below the EU average.

The evolution of prices between July 2007 and April 2008 is similar to the evolution for short distances.

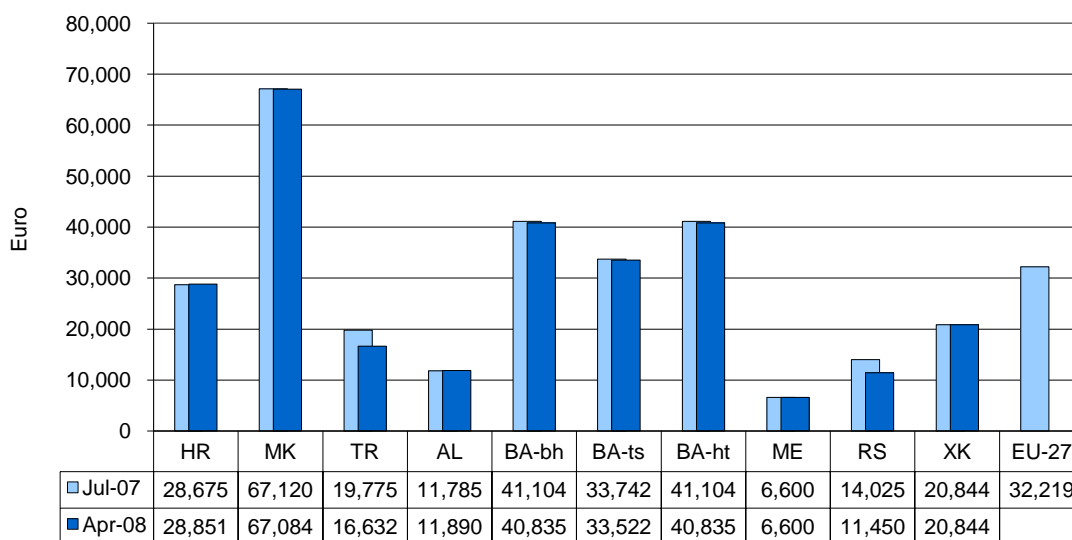


Figure 27 - Annual prices for a 200km 2Mbps/s leased line

34 Mbps short distance (2 km): not in the price list in FYROM and in Albania. The prices in Kosovo and Turkey are lower than the EU average, while the other countries are more expensive than the EU average and Serbia is the most expensive.

On the evolution of prices between July 2007 and April 2008, the prices have remained relatively stable with a decrease in Serbia (but the prices are the highest of all the countries and above the EU average).

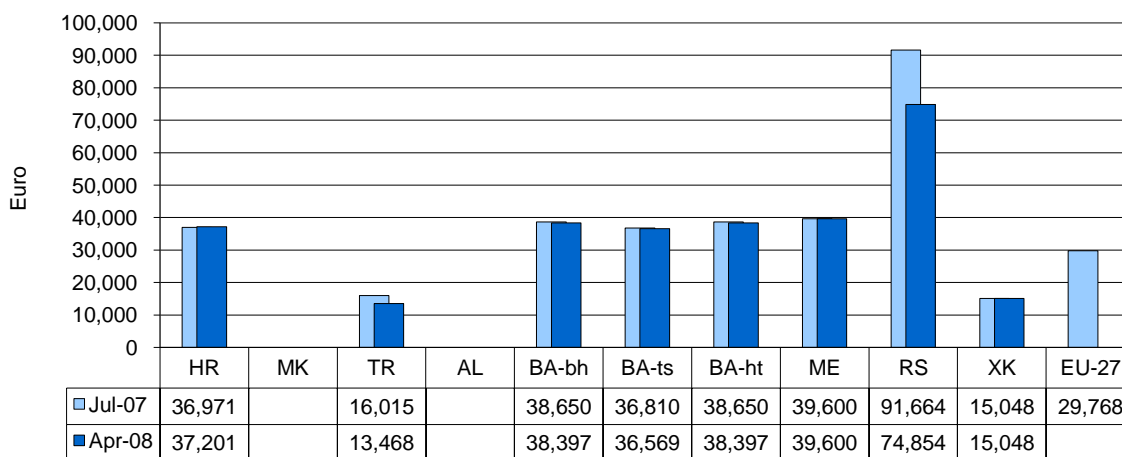


Figure 28 - Annual prices for a 2km 34Mbps leased line

34 Mbps long distance (200 km): not in the price list in FYROM and in Albania. In general terms, all prices are below the EU average except in Bosnia & Herzegovina.

As for 64 Kbps and 2 Mbps, Serbia and Bosnia & Herzegovina have relatively cheaper prices for longer distance while being much more expensive than the other countries for shorter distances. But Bosnia & Herzegovina is at the same level or more expensive than the EU average while Serbia is cheaper than EU average for short distance but more expensive for long distance. Montenegro has the cheapest prices in all categories.

On the evolution of prices between July 2007 and April 2008, the prices have remained relatively stable with the same decrease trend in Turkey and Serbia. In Serbia, one must note that the prices have decreased proportionally as have short and long distance while the short distance are the most expensive in comparison with the other countries and above the EU average while the long distance are comparable with the average prices in the other countries and below the EU average.

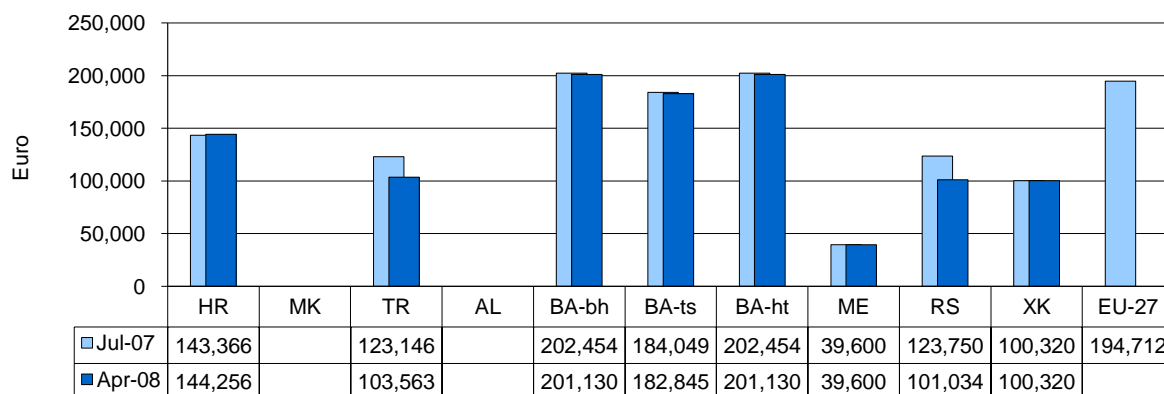


Figure 29 - Annual prices for a 200km 34Mbps leased line

## 2. International leased lines

International leased lines have traditionally been provided in the form of two half-circuits, one national half-circuit being connected to another half-circuit or to a transit circuit near the border, with the corresponding arrangement in the destination country. These are to a near and to a distant country which, for this report, has been taken to be the United Kingdom.

64 kbps international half circuit: mostly below the EU average with FYROM and Albania being the most expensive countries to a near country (and Bosnia & Herzegovina to a certain extent). To the UK, FYROM and Albania are still the most expensive countries and Kosovo is higher than the EU average.

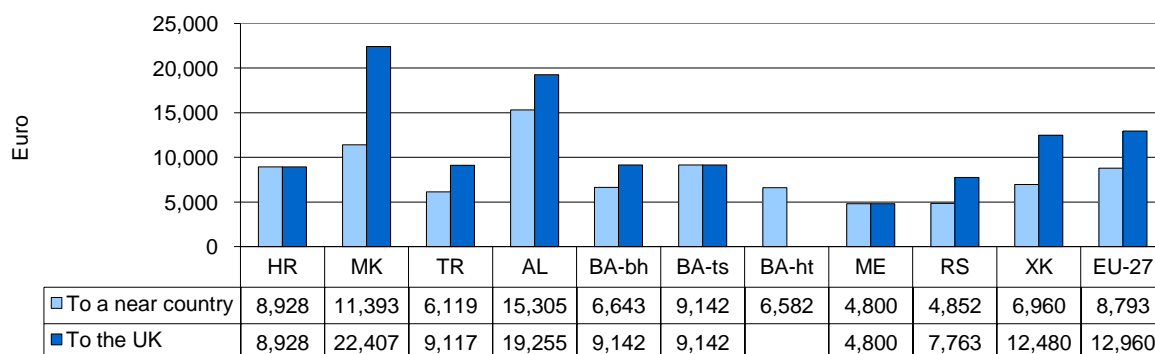


Figure 30 - Annual prices for a 64 kbps international half-circuit

2 Mbps international half circuits: globally the trends are similar to 64 kbps with the exception of Croatia and Bosnia & Herzegovina, which are proportionally cheaper than 64 kbps and the other countries.



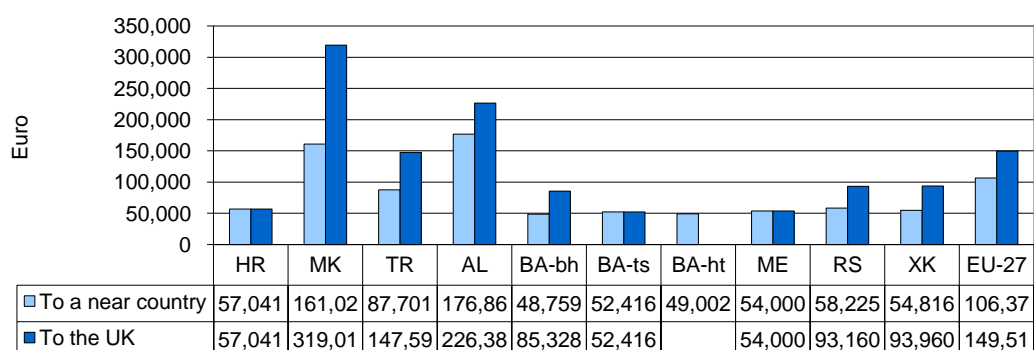


Figure 31 - Annual prices for a 2Mbps international half-circuit

## K. Internet and broadband retail prices

### 1. Dial-up Internet access cost

Access to the Internet for households in South-East Europe has primarily been by dial-up on fixed telephone lines. While FYROM, Turkey and Kosovo have moved into broadband as the major form of Internet access, dial-up service remains a significant and even a predominant form of access in Albania, Croatia, Bosnia & Herzegovina, Montenegro and Serbia.

This report analyses the cost of forty hours dial-up access to the Internet. The prices in Euros differ considerably between countries and even within Bosnia. The most expensive is the FYROM followed by Croatia. The cheapest are Turkey and Serbia and one operator in Bosnia & Herzegovina.

On the evolution of prices between July 2007 and April 2008, the prices have remained relatively stable except they have increased in Montenegro and Serbia, and decreased in Kosovo and Turkey.

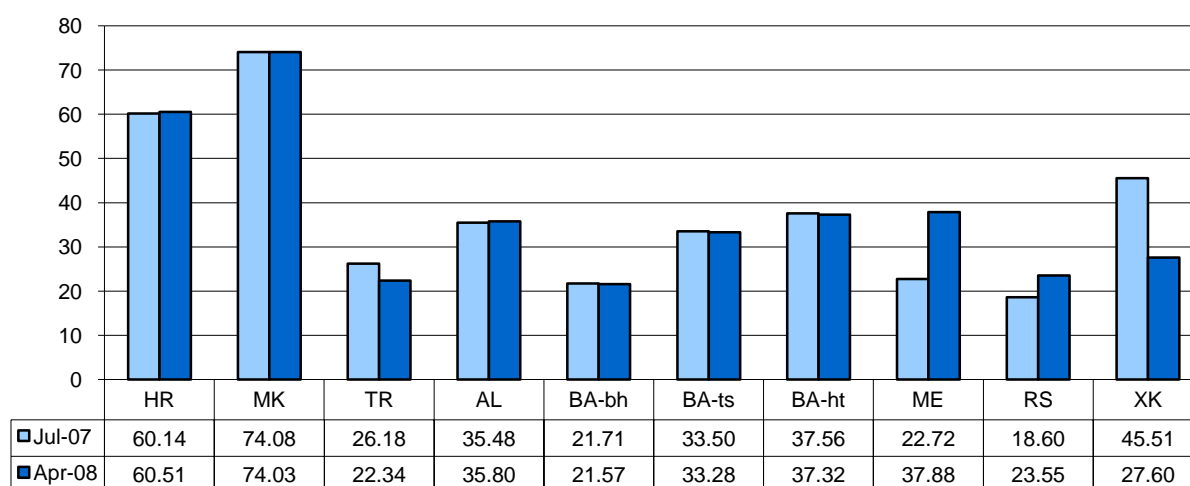


Figure 32 - 40 hours peak time use of Internet (2007-2008)

## 2. Broadband Internet access cost

This report analyses broadband download speed at 256 kbps; 512 kbps and 2 Mbps. The incumbent is offering these speeds in most countries, but in Croatia only 2Mbps is available.

In general, looking at the incumbent's prices, Albania has the highest prices for all speeds (from €41 up to €124). At the other end of the scale, Turkey has the cheapest prices with €18 for 2 Mbps from the incumbent and €7 from a competitor (and €3.6 for 256 kbps). The range of prices between 256 kbps and 512 kbps is generally proportional while there are significant price differences for 2 Mbps.

Within Bosnia & Herzegovina there are important differences in prices between the different regions.

All countries have competitive alternatives although they do not exist in all of the regions of Bosnia & Herzegovina. In FYROM, the alternative operator offers higher speeds (2 Mbps) than the incumbent operator. In the other countries, the alternative operator offers lower prices than the incumbent for the same category of speed.

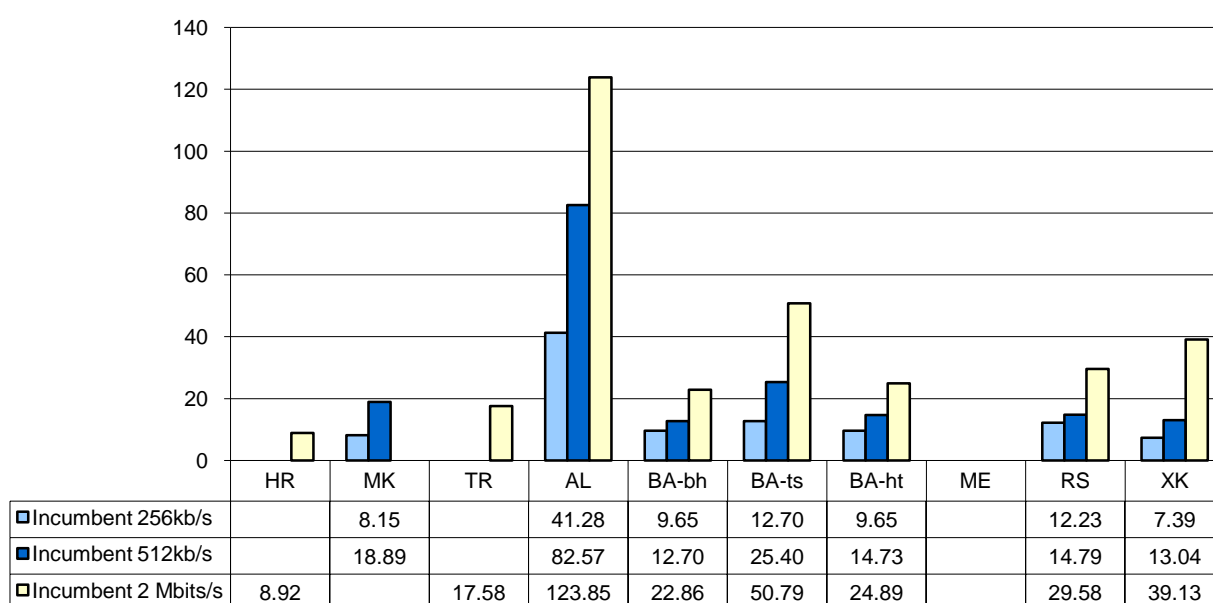


Figure 33 - ADSL Incumbent monthly subscription charges

On the incumbents' initial connection charges for broadband Internet access, excluding any refundable deposits, modems, routers and other charges, vary from (i) 0 in Serbia and FYROM, (ii) to a majority of countries < €10.5; (iii) to around €25 in Croatia and Montenegro; and (iv) up to €58 in Albania. Competition is pushing these charges down to 0 in most countries except in Turkey where the initial connection is at the same level as the incumbent's (but prices are already in the lowest range of all the countries and competition is driving monthly fees down as well) and Albania where the connection charge is even higher (€85) than the incumbent's.

## L. Wholesale tariffs

The information in this section has a reference date of April 1, 2008.

### 1. Call termination on fixed networks

The local level interconnection tariffs for termination on the incumbents' networks are in line with, although slightly higher than, the EU average.

These charts include the additional information on the termination charges for traffic from the mobile operators for those countries where this information is available. According to the EU framework, the

termination charges should be the same regardless of the originating network. The graph shows that this is the case for Bosnia & Herzegovina, FYROM, Montenegro and Kosovo. For Albania, the tariffs are different for local and single transit termination as the mobile operators always pay the double transit charge. In Croatia, the fixed incumbent's RIO applies only to calls originating in fixed networks, while its termination rates for calls originating in mobile networks are confidential. In Serbia and Turkey, currently there are no alternative fixed networks.

In Turkey, the fixed incumbent operator sets its interconnection charges at two levels: intra access versus extra access areas, which refer to the level at which physical interconnection is made in the network hierarchy. This two-way classification is different from the three-way classification commonly used by the operators in the EU, namely local, single transit and double transit. As a rough approximation, intra access area can be taken as being between the local and single transit switches, and extra access area as a level between single and double transit. In Kosovo, the fixed incumbent operator offers interconnection only at the local level, while in Montenegro – at the local and single transit levels.

In Bosnia & Herzegovina, fixed call termination charges for calls originating on mobile networks are not available.

On the evolution of prices between July 2007 and April 2008, the tariffs have remained relatively stable with some decreases: (i) a significant decrease in Montenegro, (ii) decreases in FYROM and Turkey and (iii) a decrease in double transit termination charges in Croatia.

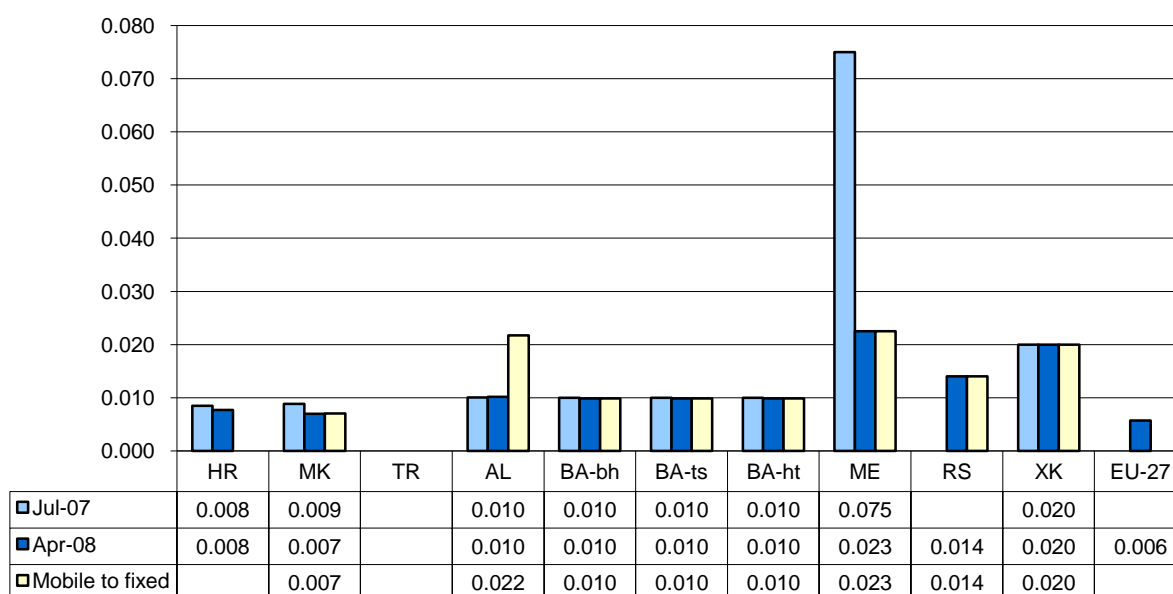


Figure 34 - Fixed incumbent local termination in peak hours

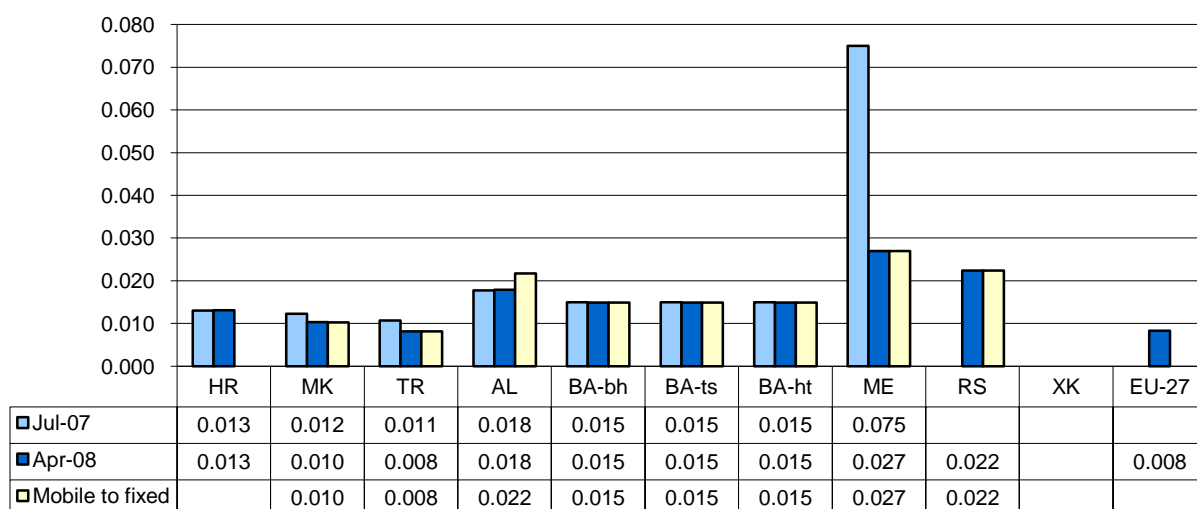


Figure 35 - Fixed incumbent single transit termination in peak hours

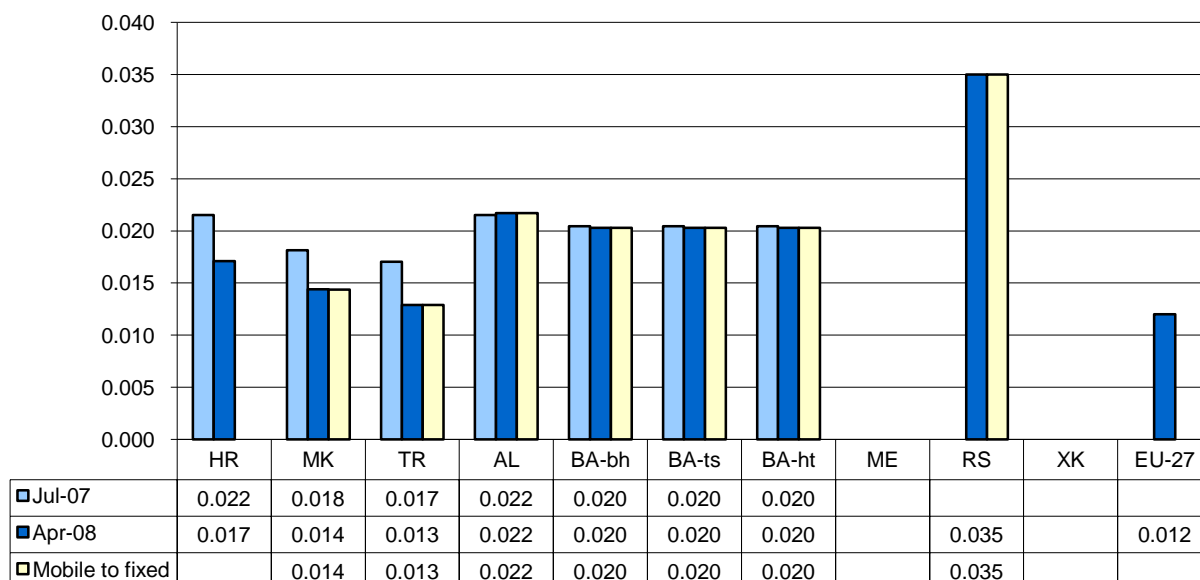


Figure 36 - Fixed incumbent double transit termination in peak hours

## 2. Call termination on mobile networks

Kosovo has two mobile operators. All the other countries have a competitive situation with three operators. Albania is the only country with a tariff system that includes setup charges.

Interconnection charges are symmetric in FYROM (until August 2008), Montenegro, and Serbia. Asymmetry has been implemented in various forms: (i) only the last entrant is benefiting from higher termination rates in Albania and Kosovo, (ii) in Turkey the asymmetry principle is applied progressively to the second and third operators and (iii) in Croatia the last entrant is charging higher termination rates during peak hours but lower termination rates during off peak hours. From August 2008, asymmetric termination rates also apply in FYROM, where similarly to Croatia the last entrant is charging higher termination rates during peak hours but lower termination rates during off peak hours

The chart below presents the development in the termination costs in mobile networks from July 2007 to April 2008. Where mobile operators in a country have different termination rates, the lowest rate is

presented in the chart. Significant reductions have taken place in Turkey, Montenegro, and Serbia and to a lesser extent in Croatia. Also in FYROM, mobile to mobile termination rates of the two largest operators have been significantly reduced in August 2008 (the change is not reflected in the chart below). However, with the exception of Turkey and Serbia, prices are higher than the EU average, which is already considered by the European Commission<sup>54</sup> as being relatively high.

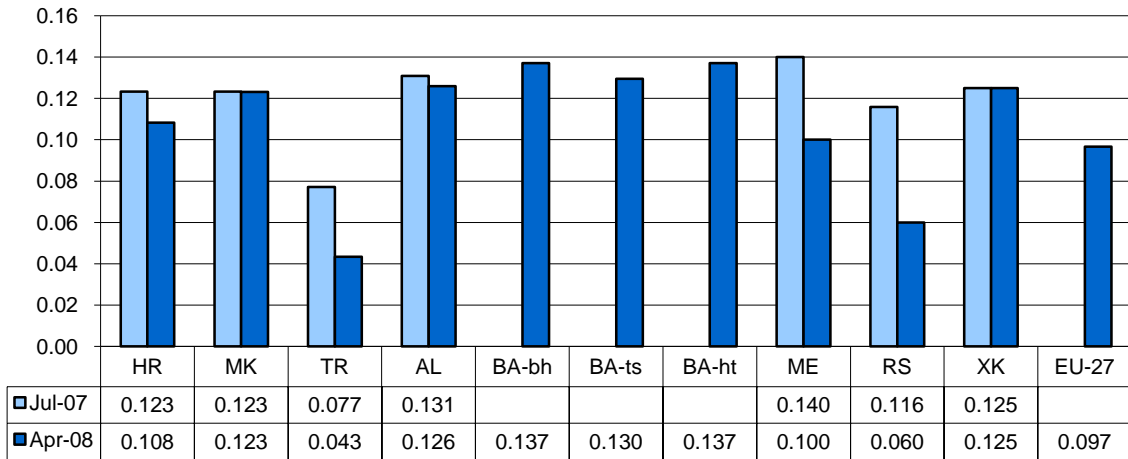


Figure 37 – Fixed to mobile termination rates in peak hours

<sup>54</sup> See draft Recommendation on “the regulatory treatment of fixed and mobile termination rates in the EU” at [http://ec.europa.eu/information\\_society/policy/ecomm/doc/library/public\\_consult/termination\\_rates/termination.pdf](http://ec.europa.eu/information_society/policy/ecomm/doc/library/public_consult/termination_rates/termination.pdf)

## M. Information society statistics

A Council Resolution<sup>55</sup> of 2003 and a European Parliament and Council Regulation<sup>56</sup> of 2004 defined indicators and required Member States to collect certain information to measure progress toward the objectives defined in Lisbon in March 2000 and the eEurope action plan of 2002. This data is published regularly by Eurostat.<sup>57</sup> The eEurope benchmarking is being further developed under the i2010 Benchmarking Framework<sup>58</sup>, as endorsed by the i2010 High Level Group in April 2006. The EC regularly updates the regulations in line with the changing data requirements.<sup>59</sup>

### 1. Bodies responsible for information society statistics

In most of the monitored countries, the national statistics institutes are responsible for information society indicators. In Croatia, FYROM, Turkey and Serbia these institutes already gather and publish data. Moreover, their statistics are integrated with Eurostat data and publications.<sup>60</sup>

The national statistics institutes are also responsible for information society statistics in Albania and Kosovo, but as yet no data have been published.

In two countries, Montenegro and Bosnia & Herzegovina, the body responsible for the development of the information society is or will be responsible for information society statistics, although data collection is done by other entities. In Bosnia & Herzegovina, the Agency for Development of the Information Society (ARID), which is not yet established, will be responsible for information society statistics. Data collection will be performed by the statistics institutes. In Montenegro, the Secretariat for Development is the responsible body, though an independent economic institute, ISSP, already conducts an annual ICT survey on usage of computers, telephony and Internet access, e-education, e-commerce, e-government and other information society topics.<sup>61</sup>

### 2. Available data on information society statistics

The objective of the data collection efforts under the eEurope action plan and the i2010 Benchmarking Framework is to measure progress and to benchmark progress between countries. This needs common definitions, with best results occurring when the national statistics institutes have included information society statistics into their regular surveys and where these statistics are integrated in the Eurostat network.

Of the many indicators defined in the eEurope and i2010 framework, only a small sub-set is available in South-East Europe. FYROM, Turkey and Serbia collect data on the use of ICTs in households and enterprises and Croatia has started to collect these data.

Amongst the national statistical institutes, the Turkish Statistical Institute (TurkStat) has the most comprehensive data. This includes data on computer and internet usage by individuals, grouped by gender and age, by education level and by labour force status, and separately for rural and urban areas. For enterprises, the institute has data on computer usage and Internet access grouped by economic activity and size of the company, also on the type of Internet connection, on the purpose of Internet usage and the proportion of enterprises which have a website.

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<sup>55</sup> Council Resolution of February 18, 2003 on the implementation of the eEurope 2005 Action Plan, 2003/C 48/02

<sup>56</sup> Regulation (EC) No 808/2004 of the European Parliament and the Council of April 21, 2004 concerning Community statistics on the information society

<sup>57</sup> See the Information society statistics, a sub-category of the theme Science and Technology:

[http://epp.Eurostat.ec.europa.eu/portal/page?\\_pageid=2973,64549069,2973\\_64554066&\\_dad=portal&\\_schema=PORTAL](http://epp.Eurostat.ec.europa.eu/portal/page?_pageid=2973,64549069,2973_64554066&_dad=portal&_schema=PORTAL)

<sup>58</sup>

[http://ec.europa.eu/information\\_society/eeurope/i2010/docs/benchmarking/060220\\_i2010\\_benchmarking\\_framework\\_nov\\_2006.doc](http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/060220_i2010_benchmarking_framework_nov_2006.doc)

<sup>59</sup> Such as Commission Regulation (EC) No 1099/2005 for the survey year 2006 and Commission Regulation (EC) No 1031/2006 for the survey year 2007.

<sup>60</sup> <http://epp.eurostat.ec.europa.eu/>

<sup>61</sup> <http://www.isspm.org/>

No statistical institute collects data on other information society statistics such as supply and demand of e-government, e-learning and e-health services, buying and selling online or ICT skills.

However, such data are collected in Montenegro by ISSP. It is difficult to compare these data with the statistics of other countries, because ISSP does not use the Eurostat definitions.

The eSEEurope Initiative collects data on broadband penetration, e-government services, and computers and Internet access in schools.<sup>62</sup>

### 3. Computer and Internet usage by individuals

The following figure shows the available data on computer usage by individuals, as far as available in the monitored countries. For comparison, the graph also shows the EU-27 average and the statistics of other countries in the region.

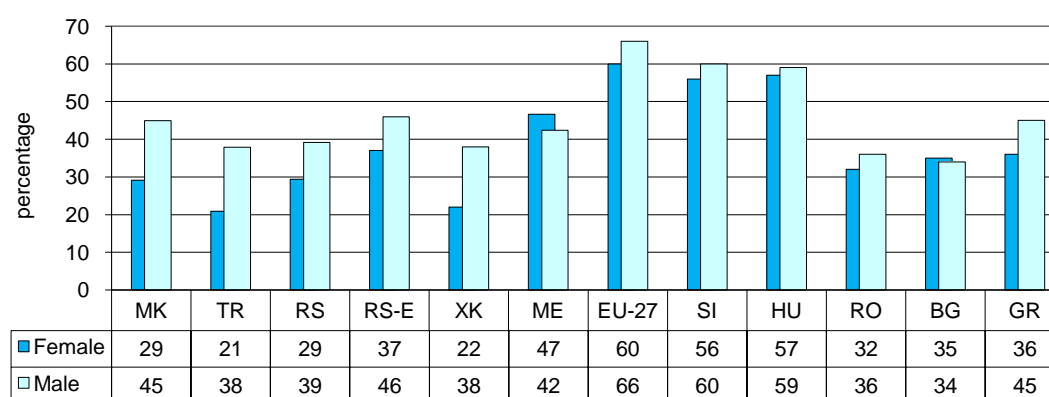


Figure 38 - Percentage of individuals regularly using computers

Note: Serbia is shown twice, with the data published by the Serbian authorities (RS) and the significantly higher data of Eurostat (RS-E). The Serbian authorities did not provide an explanation for these differences.

In all monitored countries where data is available, the percentage of regular computer users is significantly below the EU27 average, but is broadly comparable with the levels in Bulgaria, Greece and Romania. The values for Montenegro cannot be directly compared to data of other countries, because the survey in Montenegro asked “Are you a PC user?” and not about regularity of use.

The figure shows obvious gaps between male and female computer usage of about 15-17% in Kosovo, FYROM and Turkey, and about 9% in Serbia. These gender gaps are significantly larger than in most EU member states. Only Greece (36% female, 45% male) and Italy (37% female, 48% male) show similar differences, while Austria and Luxembourg have significant gender differences, but at higher levels of use.

Montenegro is the only country showing higher female than male computer usage.

With regard to Internet usage, the following figure shows a similar picture. All monitored countries, where data are available, have significantly lower Internet usage than the EU average, but similar values to Bulgaria, Greece and Romania. The value for Albania cannot be directly compared to data of other countries, because it is based on estimates by Internet service providers and not on a household survey. Kosovo, FYROM and Turkey show gaps of about 12-16% between female and male Internet usage.

<sup>62</sup> See the Matrix of fulfillment of the eSEE Agenda Plus of June 2008, <http://www.eseeinitiative.org/sadrzaj/RelatedDocuments/sadrzaj/terms/eSEE%20Plus%20Matrix%20LONG%20May.pdf>

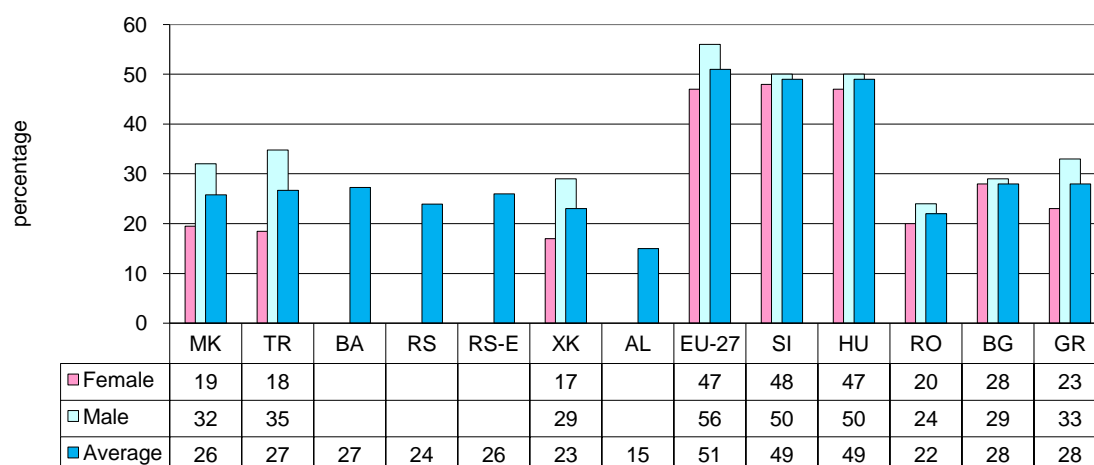


Figure 39 - Individuals regularly using the Internet

#### 4. Computer and Internet usage by enterprises

National statistics institutes collect data grouped by enterprise size: small enterprises (10 to 49 employees), medium enterprises (50 to 249 employees) and large enterprises (250 or more employees).

Reliable data on computer and Internet usage by enterprises is only available in three of the monitored countries: Croatia, FYROM and Turkey. We have two sets of data on Serbia, one published by the Serbian authorities and one from the Eurostat website. The two data sets show significant differences with regard to computer usage by small enterprises and both have unusually low values for Internet access by large enterprises (only 94%, which would be the lowest value of all countries covered by Eurostat).

The available data for Montenegro are not grouped by enterprise size and therefore not shown in the figures. According to the ICT survey, 92.9% of Montenegrin enterprises use computers and 90.5% have Internet access.

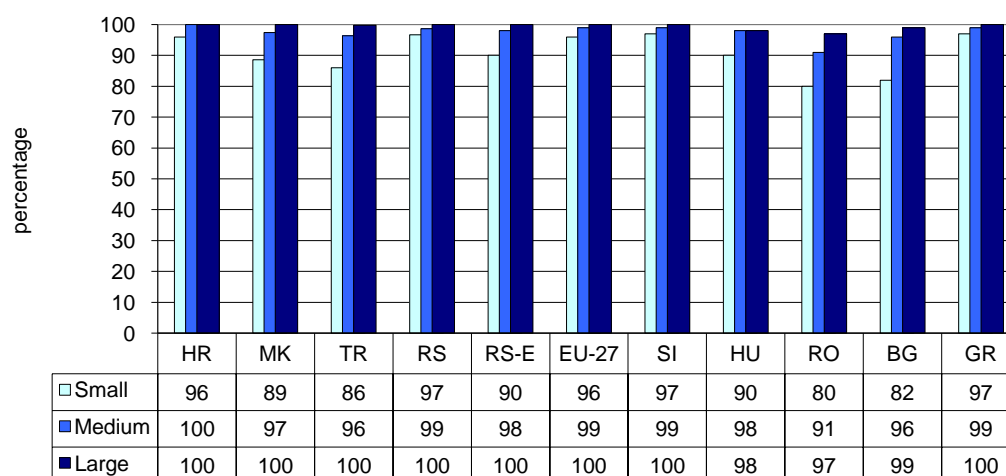


Figure 40 - Enterprises using computers



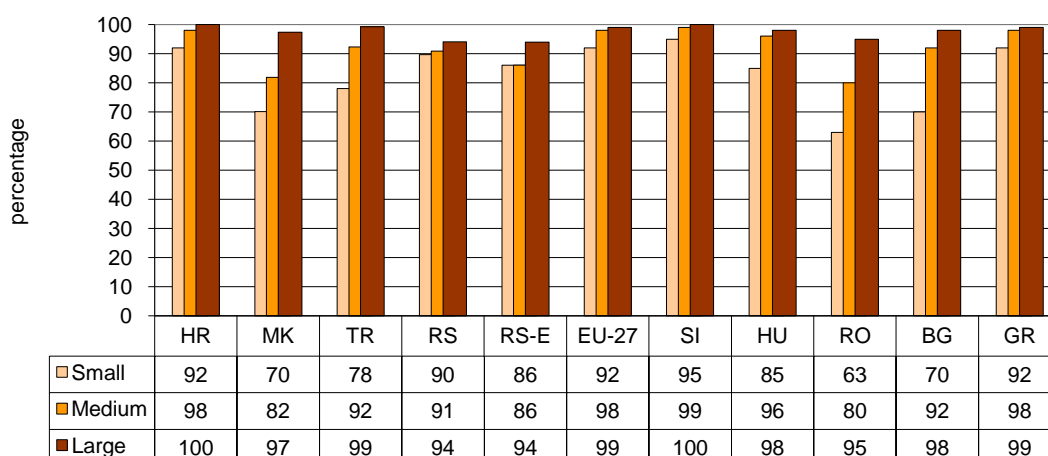


Figure 41 - Enterprises having access to the Internet

Comparing the available country data shows that Croatia has almost identical values to the EU-27 average. Serbia and Montenegro also have high computer usage near to the EU-27 average and slightly lower Internet access. FYROM and Turkey are significantly below the EU-27 average, but above Bulgaria and Romania.

## N. Network and information security

To address security challenges to the information society, the European Union institutions have developed three main lines of action:

- the regulatory framework on electronic communications requires providers of publicly available electronic communications services to safeguard the security of their services, but also deals with specific questions such as spam and cookies (Directive on Privacy and Electronic Communications<sup>63</sup>);
- the fight against cybercrime, through the adoption of a framework decision<sup>64</sup> (which echoes the Council of Europe Convention on Cybercrime<sup>65</sup>) and some other initiatives more specifically aimed at protecting minors;
- specific network and information security measures.

This last line of action is being achieved through the development of an EU strategy for a secure information society, a dialogue with stakeholders and the setting up of the European Network and Information Security Agency (ENISA) whose tasks include the collection of information, the analysis of current and emerging network risks, the development of common methodologies and the promotion of exchanges of best practices as well as methods of alert.

### 1. Network security obligations for providers of communications services

According to Article 4 of the Privacy Directive (2002/58/EC), all providers of publicly available electronic communications services must take “appropriate technical and organisational measures” to safeguard security of its services. This is a general provision which does not prescribe specific security measures,

<sup>63</sup> Directive 2002/58/EC of the European Parliament and the Council of July 12, 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on Privacy and Electronic Communications).

<sup>64</sup> Council Framework Decision 2005/222/JHA of February 24, 2005 on attacks against information systems.

<sup>65</sup> Convention on Cybercrime, ETS No. 185.

but refers to the “state of the art”, the costs of implementation and a level of security “appropriate to the risk presented”.

All monitored countries have transposed this provision into their national legislation, where it can typically be found in the Telecommunications Law or the Electronic Communications Law, though in Turkey it is in secondary legislation. Albania, Croatia and Montenegro, which recently adopted new laws, already had such a provision in their previous laws. These obligations always apply to operators who offer their services “to the public” (in Turkey: “for profit”), although the detailed definition of the scope of providers covered by the legislation varies.

With one exception, the body responsible for supervision in all monitored countries is the NRA, rather than the data protection authority. In FYROM, the NRA is only responsible for technical measures. Data protection for consumers is within the responsibility of a newly established directorate for personal data protection.

Most countries have transposed the provision in the general form of the Privacy Directive, i.e. they require “appropriate” measures without specifying details, with the exception of Turkey<sup>66</sup>.

In Turkey, on July 20, 2008 a new by-law on the security of electronic communications networks and/or services was published. It applies to equity companies which provide electronic communications networks or services and obliges them to implement information security management systems according to the standard ISO/IEC 27001 and to be audited and certified annually on the basis of this standard. The by-law also requires operators to conduct an annual risk assessment analysis and to report the results of this analysis to the regulator.

The standard ISO/IEC 27001 is currently the most important standard on information security management. It replaced the former ISO/IEC 17799 standard, which was based on the widely used British Standard BS 7799. Such standards on information security management require organisations to implement a high level management committee with responsibility for information security issues. A written security policy should be accessible to all employees. The standards usually refrain from specifying certain technical measures, but contain long lists of topics that should be taken into account by the management and addressed by the security policy in order to achieve an appropriate level of protection.

Turkey is only one of few European countries, where operators are obliged to implement information security management based on a standard. Another example is Iceland.<sup>67</sup> Turkey also has a by-law on personal information processing which includes the typical unspecific obligation and has not been repealed by the new by-law. In particular, the existing by-law applies to those providers of telecommunications services for profit, which are not equity companies and therefore not within the scope of the new by-law.

## 2. Cybercrime

The main EU actions on the fight against cybercrime have been:

- A Council Framework Decision<sup>68</sup> on attacks against information systems that provides that committing, commissioning, attempting, instigating or abetting the following acts, intentionally and unlawfully, is a criminal offence:
  - accessing the whole or part of an information system (i.e. 'hacking');

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<sup>66</sup> In Croatia, the Government Regulation on information security measures (Official Gazette 46/2008) makes obligatory implementation of standards ISO/IEC 27001 and ISO/IEC 17799 for central and local government and public authorities. These standards were adopted as national standards by the Croatian Standards Institute under the numbers HRN ISO/IEC 27001 and HRN ISO/IEC 17799. Similarly to Croatia, other countries in the region have also adopted ISO/IEC 27001 standard, without making it obligatory for providers of public electronic communications services.

<sup>67</sup> Regulation on the functionality of public communications networks, December 10, 2007, <http://www.pta.is/file.asp?id=1872>

<sup>68</sup> Council Framework Decision 2005/222/JHA of February 24, 2005 on attacks against information systems.

- interfering with an information system (such as the sending of viruses or 'denial of service attacks') to seriously interrupt or hinder its functioning;
- interfering with computer data (e.g. alteration, deletion, damaging of data) on an information system (even in the absence of damage to a person).

NB. This framework decision echoes the Council of Europe Convention on Cybercrime, which also covers other computer-related offences and some traditional offences that take place over networks as well as procedural measures and measures on international cooperation.

- Other more specific regulatory initiatives, in particular to fight sexual exploitation of children and child pornography (Framework Decision 2004/68), and to fight fraud and counterfeiting of non-cash means of payment (Framework Decision 2001/413).
- Recent policy initiatives address new forms of cybercrime (e.g. identity theft) and the improvement of cross-border enforcement cooperation.

Croatia, FYROM, Albania and Bosnia & Herzegovina have ratified the Convention on Cybercrime. Serbia and Montenegro signed the convention on April 7, 2005, about one year before the separation of the two countries, though neither has ratified the convention. In Kosovo, ratification is at the first reading in parliament. Turkey has not signed the convention.

Table 9 shows whether specific acts are considered to be criminal offences, based on the list in the Convention on Cybercrime. Where the table shows a dot, we could identify a certain provision in the criminal code or some other national law, which matches a provision in the Convention on Cybercrime, although it might not exactly cover the same crimes. Where the table shows a horizontal bar, we could not identify such a provision.

	HR	MK	TR	AL	BA	ME	RS	XK
Illegal access	●	●	●	–	–	●	●	●
Illegal interception	●	●	●	–	–	–	●	○
Data interference	●	●	●	–	–	●	●	●
System interference	●	●	●	●	–	●	●	●
Computer-related forgery	●	●	●	–	–	–	–	–
Computer-related fraud	●	●	●	–	–	●	●	–
Offences related to child pornography	●	●	●	–	–	●	●	○
Offences related to infringements of copyright and related rights	●	●	●	–	–	●	●	–
● is considered as criminal offence, – is not considered as criminal offence, ○ draft law								

Table 9 - Computer related criminal offences

In addition to the computer related crimes listed in the table **Error! Reference source not found.**, a Turkish law prohibits a range of publications on the Internet including: provocation to commit suicide, sexual harassment of children, to incite the usage of drugs, the supply of drugs which are dangerous to the health, obscenity, prostitution, the provision of places and opportunities for gambling and crimes defined in the Law on crimes against Atatürk.<sup>69</sup> The last of these has given rise to some international criticism, because Turkey has blocked access to popular video web sites that hosted even a single video clip violating that law.

<sup>69</sup> Law no. 5651 of May 23, 2007 on the prevention of crimes in the computer domain.

Most of the countries do not have an explicit policy framework for the fight against cybercrime. The exceptions are

- Turkey, where the Ministry of Justice has been charged with drafting a special law on the fight against cybercrime and where the Information Society Strategy foresees actions on Internet security, in particular training and awareness raising; and
- Albania, where the government's January 2008 sector strategy of public order foresees the establishment of a special organisational unit to deal with cybercrime and the improvement of cybercrime legislation.

### 3. Bodies in charge for security policy

Countries have many different ways of organising the bodies that are charged with security policy. In the monitored countries, the number of responsible bodies varies between zero and three, and there is a broad range of different responsibilities assigned to these bodies.

A closer look on the assigned responsibilities reveals that most of these functions deal with the security of the state's own networks, for example the responsibility to run governmental institutions network, to perform penetration tests of state institutions' systems, to improve e-government or to classify state documents as being "state secrets".

If we look only at those functions, where a state body significantly contributes to networks security outside the state's own networks, only two countries have such bodies:

- The Croatian Academic and Research Network (CARNET) operates a Computer Emergency Response Team (CERT) to prevent computer threats of public information systems. It provides the website [www.cert.hr](http://www.cert.hr) with up to date advisories on current threats and incidents in the Croatian language.
- In Turkey, TR-CERT provides a similar function. Users can report incidents to TR-CERT and receive guidance. The national information security portal [www.bilgiguvenligi.gov.tr](http://www.bilgiguvenligi.gov.tr) advises on current threats in the Turkish language.

Table 10 shows the number of bodies and their responsibilities.

	HR	MK	TR	AL	BA	ME	RS	XK
Number of bodies responsible for network and information security	3	–	1	2	–	2	1	3
Country has a body responsible for network and security policy in general (that is, a body not only responsible for governmental networks)	•		•					•
Country has a computer emergency response team (CERT)	•		•					
Country provides an alert website or information security portal	•		•					
Country has a body responsible for e-government or the government institutions network	•		•	•		•	•	•
Country has a body responsible for classifying documents as state secrets			•	•				

Table 10 - Bodies responsible for security policy

## O. Electronic contracts and electronic signatures

### 1. Legal recognition

The Electronic Commerce Directive 2000/31/EC requires Member States to remove any legal obstacles that would prevent the use of electronic contracts. A contract may not be deprived of legal validity on the grounds that it has been concluded electronically. The directive lists categories of contracts which would not automatically be legally valid and whose electronic conclusion can be restricted. These categories relate to contracts creating or transferring rights in real estate, requiring the involvement of courts or public authorities; of suretyship and collateral securities supplied by people acting for non-business purposes or that are governed by family law or by the law of succession.

The Electronic Signatures Directive 1999/93/EC distinguishes between ordinary electronic signatures and 'advanced electronic signatures' that are based on 'qualified certificates' and created by a 'secure signature-creation device' (the latter are usually called 'qualified electronic signatures'). The technical requirements are based on public key cryptography, involving 'certification service providers'.

The Directive specifies that there is no automatic legal recognition of ordinary electronic signatures' but they cannot be denied legal effect or refused as evidence in courts solely on the grounds that they are in electronic format or they are not 'qualified signatures'.

Qualified electronic signatures on the other hand must be legally recognised as equivalent to hand-written signatures and admissible in courts.

All eight monitored countries have transposed these requirements into their legislation:

- All eight countries have an electronic signature law.
- In all eight countries it is generally possible to conclude an electronic contract, although in several countries some types of contracts cannot be concluded electronically.
- No country would in principle deny ordinary electronic signatures legal effect or refuse ordinary electronic signatures as evidence in court.
- Qualified electronic signatures are in all countries recognised as equivalent to hand-written signatures.

### 2. Market access, supervision and accreditation

According to Article 3 of the Electronic Signatures Directive, Member States

- shall not make the provision of certification services subject to prior authorisation;
- may introduce voluntary accreditation schemes aiming on enhanced levels certification-service provision; and
- shall ensure the establishment of a supervision scheme for certification-service providers issuing qualified certificates.

The requirement not to make the provision of certification services subject to prior authorisation has been transposed in Croatia, Turkey, Montenegro and Kosovo. In Albania, the law also does not require prior authorisation, but market access might be hindered by the fact that the law requires providers to notify their services to a supervision body which has not been established. In FYROM, Bosnia & Herzegovina and Serbia the law requires providers to register their services in advance.

None of the monitored countries has established its own voluntary accreditation scheme. This is, however, not required by the Electronic Signatures Directive and only about half of the EU Member States operate a voluntary accreditation scheme.

Supervision schemes have been established in Croatia (Ministry of Economy, Labour and Entrepreneurship), FYROM (Ministry of Finance), Montenegro (Secretariat for Development), Serbia (Ministry of Telecommunication and Information Society) and Turkey (Telecommunications Authority). In

Albania a supervisory body will be established, subordinate to the Ministry of the Interior. In Bosnia & Herzegovina and Kosovo, no supervisory body has yet been established.

### 3. Electronic signature market data

The available market data shows a picture similar to many other European countries: the legal framework for electronic contracts and electronic signatures exists, but there is little demand for certificates, at least for qualified certificates.

- In Turkey, there are four certification-service providers that issue qualified certificates, but in spite of the size of the country they have only issued about 36,000 qualified certificates.
- In FYROM, two certification-service providers issue qualified certificates, but no data on the number of certificates is available.
- In Croatia, the state-owned Financial Agency (Fina) is the only issuer of qualified certificates. Statistics on the number of certificates are not available.
- In the other five countries, no provider issues qualified certificates. In Serbia, this might be due to a slow registration process for certification service providers. In Montenegro, one provider issues non-qualified certificates for e-banking.

Table 11 provides an overview of electronic signature regulation.

	HR	MK	TR	AL	BA	ME	RS	XK
Legal recognition requirements on electronic contracts and electronic signatures transposed	●	●	●	●	●	●	●	●
Prior authorisation not required before market access	●	X	●	○	X	●	X	●
Supervision system established	●	●	●	○	—	●	●	—
Number of certification-service providers issuing qualified certificates	1	2	4	—	—	—	—	—
○ ● (partly) transposed/established, — not established, X = national law in contradiction with the Directive								

Table 11 - Electronic signature regulation and market data

## P. Data protection and data retention

### 1. Protection of confidentiality of communications

According to Article 5 Privacy Directive 2002/58/EC, Member States shall ensure the confidentiality of communications and the related traffic data through national legislation. In particular, they shall prohibit listening, tapping, storage or other kinds of interception or surveillance of communications and the related traffic data by persons other than users, without the consent of the users concerned, with the exception of lawful interception.

This requirement has usually been transposed in the telecommunications law, by a provision in the privacy chapter that prohibits interception, and a misdemeanour provision that defines the penalties for infringements. Sometimes the telecommunications law only prohibits operators or their staff from interception, but does not impose penalties on third parties who intercept a communication. Often, a provision in the Criminal Code qualifies any form of illegal interception (whether it is the operator or somebody else) as a criminal offence.

Bosnia & Herzegovina is the only monitored country which does not have a provision against illegal interception. In FYROM there are provisions in the Electronic Communications Act and in the Criminal Code, though not all forms of illegal interception are covered. If somebody who is not an operator

intercepts a communication that is not an audio conversation (for example, intercepting e-mails or SMS), this is not covered by either of the two provisions.

Table 12 shows whether the penalties are imposed on illegal interception by the operator and/or illegal interception by third parties.

	HR	MK	TR	AL	BA	ME	RS	XK
Illegal interception by operators and their staff	●	●	●	●	—	●	●	●
Illegal interception by third parties	●	○	●	●	—	●	●	●
● = legal provisions exist, ○ legal provision does not cover all cases, — no legal provision								

Table 12 - Protection of confidentiality of communications

## 2. Traffic and location data

According to Article 6 of the Privacy Directive, traffic data relating to subscribers and users must be erased or made anonymous when it is no longer needed for the purpose of a communication, for billing and interconnection payments, or for lawful interception. All monitored countries except Bosnia & Herzegovina have transposed this provision. Most countries referred to the period during which the bill may be lawfully challenged or payment can be pursued (which is typically dependent on the contract between the operator and the subscriber).

Article 6(3) Privacy Directive requires the subscriber's informed consent before providers can use traffic data for marketing their own services or for the provision of value added services. All monitored countries except Bosnia & Herzegovina and Serbia have transposed this provision.

Article 9 Privacy Directive contains provisions to protect location data, in particular the use of location data needs informed consent by the user or subscriber and even where consent has been obtained, the user or subscriber must be able to temporarily refuse the processing of location data. All monitored countries except Bosnia & Herzegovina have transposed this provision.

Table 13 provides an overview of the provisions made for traffic and location data.

	HR	MK	TR	AL	BA	ME	RS	XK
Maximum storage period for traffic data specified by law, for example: as long as needed for billing?	●	●	●	●	—	●	●	●
Informed consent required before traffic data may be used for marketing?	●	●	●	●	—	●	—	●
Informed consent required before location data may be used? Possibility to refuse temporarily, even if consent was given before?	●	●	●	●	—	●	●	●
● = transposed, — = not transposed, ? = unclear								

Table 13 - Traffic and location data

## 3. Data retention

According to the Privacy Directive, providers typically have to erase traffic data as soon as they do not need them any more for their legitimate purposes (in particular for billing, see the table above). However, article 15(1) Privacy Directive establishes an exception to that principle and allows Member States to adopt legislation providing for the retention of data for a limited period where this constitutes a necessary, appropriate and proportionate measure in a democratic society to safeguard national security (state

security), defence, public security, and the prevention, investigation, detection and prosecution of criminal offences or of unauthorised use of electronic communication systems.

Directive 2006/24/EC on Data Retention harmonises Member States' laws on the retention of traffic, location and identification data to ensure the investigation, detection and prosecution of 'serious crimes'. All categories of data covered by the directive must be retained for a minimum of six months and for a maximum of two years specifies the principles, the types of data to be retained and the retention periods.

Data retention has proved to be a controversial topic, with many Member States having delayed its introduction, in particular with regard to retention of Internet data. The Republic of Ireland has asked to European Court of Justice to annul the Directive (case C-301/06).<sup>70</sup>

The new laws in Croatia and Montenegro introduce data retention obligations both for telephony data and Internet data. The provisions in the Croatian law will come into force on July 1, 2009. Bosnia & Herzegovina already has a data retention obligation for telephony and Internet data. Turkey and Albania have a data retention obligation for telephony data. FYROM, Kosovo and Serbia do not have data retention legislation.

In all countries which oblige operators to retain data, operators have to bear the costs and are not entitled to ask for compensation.

Table 14 shows which countries have data retention obligations for telephony data and/or for Internet data.

	HR	MK	TR	AL	BA	ME	RS	XK
Telephony data	●		●	●	●	●		
Internet data	●				●	●		

Table 14 - Data retention obligations

#### 4. Spam

Article 13 of the Privacy Directive requires unsolicited commercial communications by e-mail to be subject to the individual's prior consent (opt-in), except for the sending of direct marketing emails to existing customers. For companies, Member States are free to require an opt-in or an opt-out scheme.

NB. In addition to other requirements, Article 7 of the Electronic Commerce Directive states that if unsolicited commercial communications by e-mail is allowed, it must be clearly identifiable and service providers who send such communications must respect opt-out registers.

Most of the monitored countries prohibit spam, without making a distinction between unsolicited e-mail addressed to an individual or to a company. Albania and Montenegro had no explicit provisions on spam in their telecommunications law, but prohibit spam in their recently adopted new electronic communications laws. Bosnia & Herzegovina and Serbia do not have explicit legislation on spam.

Only in Kosovo unsolicited commercial communications is explicitly allowed. The relevant provision in article 20 of the Law on the Information Society Services transposes the conditions set out in article 7 of the E-Commerce Directive. It requires that unsolicited e-mails must be clearly identifiable and that the sender must respect opt-out registers. However, the law in Kosovo explicitly allows sending unsolicited e-mails, whereas on EU level the E-Commerce Directive left this question undecided and the Privacy Directive later required Member States to prohibit spam addressed to individuals.

<sup>70</sup> Pending before the ECJ.



## 5. Itemised billing

Article 10 and Annex I of the Universal Service Directive give subscribers the rights to receive itemised bills in order to allow them to verify and control their charges, adequately monitor their usage and thereby exercise a reasonable degree of control over their bills. The details are to be laid down by the NRAs.

Article 7 of the Privacy Directive addresses privacy concerns in relation to itemised billing, in particular the rights of calling users (because telephones are often used by persons other than the subscriber) and called subscribers. It also gives subscribers the right to receive non-itemised bills.

All monitored countries have a right to receive itemised bills in their legislation.

In FYROM and Montenegro, this right however does not oblige the operator to show details for every call in the standard version of itemised bills. It only requires operators to show the number of accounting units accumulated in certain groups (local calls, national calls, international calls, calls to mobile networks, etc.). In FYROM, subscribers receive free fully itemised bills in practice in case of complaints.

All monitored countries with the exception of Albania and FYROM have transposed the provision of the Privacy Directive that gives subscribers the right to receive non-itemised bills.

The provisions in the Privacy Directive, which address the conflict of interest between subscribers (who have to pay and want to check the bill) and other users or called users (which might not want the subscriber to know their details), are vague and this is also reflected in the legislations of the monitored countries. Most countries do not have any rules on this subject in their legislation. In particular, no country obliges operators to anonymise the last digits in the numbers. Albania, Croatia and FYROM require operators not to include calls to toll-free numbers and emergency numbers in itemised bills, which gives some level of protection of privacy if a user calls a toll-free helpline and does not want the subscriber to know about this call.

## Q. Subscriber directories

### 1. Subscriber inclusion in directories

Article 25 (1) Universal Service Directive gives all subscribers the right to have a directory entry. The Privacy Directive addresses subscribers' privacy interests with regard to directories. According to article 12(2) Privacy Directive, subscribers shall be given the opportunity to determine whether their personal data are included in a public directory, and if so, which data, and to verify, correct or withdraw such data. Not being included in a public subscriber directory, verifying, correcting or withdrawing personal data from it shall be free of charge.

In all monitored countries, subscribers have the right to be included in the directory, and in most countries it is explicitly stated that operators may not charge for inclusion. Subscribers have the right not to be included in the directory. However, the law in FYROM and the new Albanian law explicitly state that not being included may be charged on the basis of real costs. Kosovo has differing legislation in the Law on telecommunications and the Law on information society services.

With regard to the question, whether subscribers who do not explicitly state their opinion should be included, the legislation in many countries is not entirely clear, perhaps due to ambiguity in the Privacy Directive. When the Privacy Directive was being adopted, it was disputed whether it should impose an opt-in principle (only subscribers are included who explicitly want it) or an opt-out principle (all subscribers are automatically included unless they explicitly do not want it). The final agreement allowed for both, but required operators to inform subscribers in advance and to give them the opportunity to decide.

Table 15 shows the legislation or practice on this question in the monitored countries.

	<b>Opt-in principle</b>	<b>No explicit provision</b>	<b>Opt-out principle</b>
Description	The law states that subscribers may only be included if they explicitly want it.	Subscribers must be informed and given the opportunity to decide, but the law leaves it to the operator whether he	The law states that all subscribers must be included unless they explicitly do not want it.

	Opt-in principle	No explicit provision	Opt-out principle
		includes subscribers who do not state their opinion	
Countries	Kosovo (Law on telecommunications) Turkey (opt-in not required by law, but used in practice)	Albania FYROM Kosovo (Law on information society services)	Bosnia & Herzegovina Croatia Montenegro Serbia

Table 15 - Subscriber inclusion in directories

## 2. Availability of directories and directory enquiry services in practice

Traditionally, in many countries the incumbent operator published a printed directory and offered a directory enquiry service. When the market was liberalised, countries typically obliged all operators to establish their own subscriber directories, although this obligation did not include the obligation to publish the directory in printed form.

If each operator maintains its own directory, this information is not very useful for persons who are looking for a phone number. Interested users might have to try the directory enquiry services of several operators until they get the desired information. Users therefore need access to a comprehensive directory which includes the subscribers of all (or at least most) operators.

Such a comprehensive directory can be established in two ways:

- According to article 5 of the Universal Service Directive, at least one comprehensive directory (printed or in electronic form) and at least one comprehensive telephone directory enquiry service shall be available to end-users. NRAs may therefore select the provider of a comprehensive directory by means of designating a universal service provider after a public tender.
- In many countries, directory enquiry services are offered by several providers on competitive basis. This requires that interested undertakings get access to the subscriber data under reasonable conditions. Often, NRA intervention is necessary, because operators are reluctant to provide the data or ask for unreasonably high charges. Another requirement for a competitive market of directory enquiry services is that no such service is provided below costs. In particular the incumbent may not cross-subsidise its own directory enquiry service. Again, this might need some intervention by the NRA or the competition authority.

The collected data shows, that neither of these processes has taken place in the monitored countries. No monitored country has a comprehensive directory or a comprehensive directory enquiry service.

In FYROM, a procedure to designate a universal service provider for a comprehensive telephone directory and directory enquiry services is ongoing.

## R. Internet backbone infrastructure

Little data are available on the monitored countries' Internet backbone infrastructure. Not more than three countries could provide data on their international Internet bandwidth. Although it is likely that most of the monitored countries have only a few cross-border Internet backbone links. Montenegro reported an international bandwidth of 0.9 Gbps, Kosovo 3 Gbps and Turkey 102 Gbps.

An Internet exchange point (IXP) is a node where different Internet service providers (ISPs) exchange Internet traffic. An IXP typically consists of several network switches to which all participating ISPs connect. Often, the provider of the IXP is not an ISP itself, but a commercial data centre or a non-profit

organisation like a university data centre. Many European IXPs are organised in the European Internet Exchange Association (Euro-IX).<sup>71</sup>

In 2007, a Euro-IX report listed 103 IXPs in 31 European countries. Only one of these was located in the countries covered by our analysis.<sup>72</sup> The University Computing Centre of the University of Zagreb operates the Croatian Internet eXchange (CIX) in Zagreb. Compared with other European IXPs, CIX is relatively small. As of July 31, 2008, CIX connected 15 Croatian ISPs (three more prepared to become connected) and had an average traffic volume of about 0.16 Gbps.

NB. For comparison, as of August 2007, about one third of European IXPs had a traffic volume <1 Gbps, one third had a traffic volume from 1 to 5 Gbps, and one third had a traffic volume >5 Gbps.<sup>73</sup>

## S. Management of Internet domains

The management of Internet domains is (with the exception of the .eu domain) not regulated by EU legislation. Nevertheless, availability of domain names, easy registration processes and low prices are important for the creative industries of a country. If it is difficult to register or there are high prices, users will choose a domain name under a generic top-level domain or under the country code top-level domain of another country.

We can distinguish at least three different functions that might be regulated by law (but are often unregulated, in particular if the traditionally established system works satisfactorily):

- drafting and adopting the national domain name policy, in particular the rules on who can register a domain name, rules on accrediting registrars and dispute settlement provision;
- the function of the registry, that is the body which manages the central database and the domain name servers; and
- the function of registering the individual domain names, maintaining the customer contact and billing (registrar function).

### 1. National domain name registry and policy

In five of the monitored countries, an academic institution has the task of the national registry, in particular a university data centre (Bosnia & Herzegovina, Croatia, FYROM and Turkey) or an association of university institutions and ISPs (Serbia). In these countries there is no explicit legislation on domain name management or it has only been recently introduced (e.g., Croatia). The typical legal basis of the national registry is a ministry or government decision which was the basis of the contract with IANA or ICANN. The national domain name policy is usually decided by the registry itself, either in the form of an ordinance or in the form of general business conditions.

In Albania the telecommunications regulator is the national registry and, since June 2008 has an explicit legal basis in the Electronic Communications Act. Kosovo does not yet have a top level domain.

The most noteworthy example in the region is Montenegro, which is in the lucky situation to have a country code (ME) that is also a frequently used English word. This makes Montenegrin domain names attractive for English speaking users. Montenegro is the only country in the region that has taken a fully market based approach in its domain name policy. It has separated the policy function and the registry function:

- On the basis of the Law on the property of the Republic of Montenegro, the government adopted a decision establishing the Council for the “.me” domain. This council decides on the domain name policy.

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<sup>71</sup> <http://www.euro-ix.net/>

<sup>72</sup> Euro-IX, Serge Radovic: 2007 Report on European IXPs, October 2007, available for download at [http://www.euro-ix.net/resources/2007/euro-ix\\_report\\_2007.pdf](http://www.euro-ix.net/resources/2007/euro-ix_report_2007.pdf)

<sup>73</sup> See p. 25 of the above mentioned 2007 Report on European IXPs.

- The Council announced a public invitation for selecting the agent for the registry function. In this international tender, a joint venture of GoDaddy (one of the largest players in the domain name business) and a Montenegrin company won the tender.

## 2. Registrars of domain names

By separating the function of the national registry and the registrars, a state can introduce competition on the domain name market. This not only reduces the price of registering domain names, it also makes access to domain names easier. Normally, domain name owners do not operate their own name servers and have to use the services of an ISP for this purpose. If this ISP also may act as registrar and has direct electronic access to the national domain name registry, the process of registering the domain name is significantly simplified.

The monitored countries can be clustered in two groups, as shown in the following table. Kosovo belongs to neither of the groups, because it does not have a top level domain yet.

	Competition model	“Registry is only registrar” model
Competition between registrars exists	Yes	No
Countries	BA, ME, RS, TR	AL, HR, MK
Who accredits registrars	The registry	–
Electronic interface exists	Yes	No
Number of registrars	ME: 87, RS: 35, BA: 20, TR: 7 (20 expected)	1 (the registry)
Price per domain and year	BA: €35, ME: €12, RS: €18, TR: €2 to €10 Does not include registrar functions	AL: €24, HR: €24, MK: €8.50 Includes registrar functions

Table 16 - Registrars of domain names

Montenegro is the only country where foreign undertakings may become accredited registrars. This and the attractiveness of the domain name .me for English speaking domain name users explain the large number of accredited registrars.

Table 16 shows that the competitive model does not automatically introduce low prices. Bosnia & Herzegovina has the highest annual prices although the prices do not cover the registrar functions. On the other hand, the registry in FYROM is amongst the cheapest in the region, although it has a monopoly on domain name registration.

## 3. Cyber squatting and dispute resolution

All seven monitored countries that have their own top level domain have included policies against cyber squatting in their regulations or into the general business conditions of the registry.

Also, all seven countries introduced an out-of-court dispute resolution mechanism in the form of arbitration before a dispute goes to court. Two countries (Bosnia & Herzegovina and Montenegro) used ICANN’s Uniform Domain Dispute Resolution Policy as the basis of their dispute resolution mechanism.<sup>74</sup>

## 4. Domain market data

It is difficult to compare the numbers of registered domain names per country due to the following reasons:

- The top-level domains of Serbia and Montenegro only became available recently and the sunrise period in both countries started in spring 2008.

<sup>74</sup> <http://www.icann.org/udrp/udrp.htm>

- Kosovo does not have a top-level domain at all.
- The .me domain is highly attractive for foreigners. Two days after open registration had started on July 17, 2008, more than 50,000 new domain names were registered, about the same number as in Croatia and significantly more than in Serbia. However, most of this interest in Montenegrin domain names comes from other countries. It remains unclear, how many Montenegrin customers would have registered a domain, if the top-level domain would not be as attractive.

In spite of the difficulties to compare the domain name markets it is obvious, that Albania (850 domain names in March 2008) and Bosnia & Herzegovina (7,000 domain names by end of 2007) reported unusually small numbers of domain names.

## VII. COUNTRY PROFILES

### A. Croatia

#### 1. Legal and institutional framework

##### a) Electronic Communications Act

The Electronic Communications Act of June 19, 2008 (Official Gazette 73/2008) entered into force on July 1, 2008 as the principal legal instrument for the electronic communications sector, defining the institutional framework, including the responsibilities of the government, the ministry and the national regulatory authority. It replaced the Telecommunications Act of 2003 and is intended to bring the law into line with the principles of the EU 2003 regulatory framework.

##### b) Ministry of the Sea, Transport and Infrastructure

The Ministry of the Sea, Transport and Infrastructure (MMPI) is the government department responsible for electronic communications.<sup>75</sup> It is responsible for developing and promoting the general principles, strategies and policy objectives for the electronic communications sector, the adoption of some implementing legislation as prescribed by the Electronic Communications Act and approval of the Radio Frequency Allocation Table on the proposal of the Council of the NRA. The Ministry also carries out inspections for the enforcement of the Electronic Communications Act and its subsidiary regulations.

##### c) Croatian Post and Electronic Communications Agency

The Electronic Communications Act establishes the Croatian Post and Electronic Communications Agency (HAKOM) as the national regulatory authority, combining the tasks and responsibilities of the previous regulators for telecommunications (the Croatian Telecommunications Agency, HAT) and for postal services (the Postal Services Council).<sup>76</sup> The Agency is an autonomous, independent body responsible for carrying out regulatory tasks defined under the Act, including the adoption and administration of implementing legislation within its competencies.

The Agency is governed by a Council comprising seven members, of which two are the Chairman and Deputy Chairman, who are full-time executives of the Agency during their terms of office. The Council members are appointed and dismissed by the parliament acting on the proposals of the government. Appointment is for a period of five years with the possibility of reappointment. The Agency's administrative service which performs expert, administrative and technical tasks is managed by a Director, appointed by the Council for a period of four years, with the possibility of reappointment.

The Agency is self-financed and is a non-profit legal entity with its own budget, funded from the three principal sources: addressing and numbering fees, radio spectrum usage fees and administrative fees determined as a percentage of the annual revenues of authorised undertakings. Any surplus at the end of the year is carried forward into the budget for the following year.

##### d) Information society

The Central State Administration Office for e-Croatia is a governmental office headed by a State Secretary. It is responsible for information society policy (in particular the e-Croatia 2007 Programme) and Croatia's e-government activities.

Other bodies that have information society responsibilities are the Central Bureau of Statistics (information society statistics), the Office of the Council on National Security (information security policy), the Institute for Information Systems Security (technical aspects of information security), the Croatian Academic and Research Network CARNet (it operates a Computer Emergency Response Team and is the national

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<sup>75</sup> <http://www.mmpi.hr/default.aspx?id=777>

<sup>76</sup> <http://www.telekom.hr/Default.aspx>

domain name registry) and the Ministry of the Economy, Labour and Entrepreneurship (electronic signature).

Croatia has implemented the E-Commerce Directive, the Electronic Signatures Directive and the Cybercrime Convention.

## 2. Regulatory independence

### a) Privatisation and operational independence

State involvement in ownership and control of the former monopoly operator, Hrvatske telekomunikacije (T-HT), has been significantly reduced as the result of several stages of privatisation. These began in 1999 with adoption of the Act on Privatisation of Hrvatske telekomunikacije. In October 1999 the government sold 35% of the shares to a strategic investor - Deutsche Telekom. Following the purchase of a further 16% of the shares in October 2001, Deutsche Telekom gained control, with 51% of shares. In February 2005 the government transferred 7% of its shares to Homeland War Veterans Fund.

On September 24, 2007 the government sold 32.5% of the shares through an IPO, with 25% reserved for Croatian citizens and the remaining 7.5% of shares for institutional investors. Currently the Government holds 3.6% of shares, following a June 2008 distribution of shares to the former and present T-HT Group employees.

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

### b) Administrative independence

The new Electronic Communications Act emphasises the separation of the Agency's regulatory tasks from policy making and state administration. In particular, the administrative supervision of the Agency by the Ministry which was a feature of the previous Telecommunications Act is now removed. Furthermore, the Ministry is limited to publishing guidelines and instructions for the Agency regarding policy objectives and goals, but these should not influence the Agency's decisions in individual cases.

The Act also excludes the regulatory activities of the Agency from the application of the General Administrative Procedure Act, meaning that the Agency's decisions cannot be overturned by the Ministry on the basis of administrative supervision. Appeals against the Agency's decisions can only be brought before the Administrative Court of the Republic of Croatia.

## 3. Market access and authorisations

Croatia was the first among the monitored countries to introduce full liberalisation of fixed public telephone networks and services on January 1, 2003.

The Telecommunications Act of 2003 provided for a regime combining individual licences and general authorisations. Depending on the 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 spectrum;
- individual licences – for the provision of public telecommunications services in fixed networks, leased lines, cable TV services and PMR services.
- general authorisation with notification to the Agency – for the provision of all other services including Internet access, VoIP, Value Added Services and Premium Rate Services (PRS).

The Electronic Communications Act introduced a regime in which electronic communications networks 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 starting activities.

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

#### 4. Significant market power

Under the Telecommunications Act 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 (including 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 the definition of relevant markets of October 2005 (Official Gazette 127/2005) provided a market definition procedure to be carried out by the NRA, based on the EU 2002 regulatory framework and the EC Recommendation on relevant markets of 2003. It had not, however, been put in practice yet.

Instead, the designation of operators with SMP was based on the application of the static threshold criteria of 25% market share (measured by revenue) in a relevant market combined with an assessment of other criteria specified in Article 51 of the Telecommunications Act of 2003. The regulatory obligations applicable to all operators with SMP were also pre-defined by that Act.

The following operators have been designated as having SMP, in accordance with the Agency 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 (including 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 on mobile networks;
- T-Com, T-Mobile and VIPnet as having SMP in interconnection.

The new Electronic Communications Act provides for a market analysis procedure, definition of relevant markets, SMP designations and the imposition of remedies on designated operators based on the principles of the national 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 remain in force.

In August 2008, the Agency adopted regulations on identifying the markets susceptible to ex ante regulation on the basis of the seven markets listed in the EU Recommendation on relevant markets of 2007. In addition, the Agency intends to assess whether three further markets meet the three criteria test and should be added to the list of relevant markets: the retail market for public voice telephony services in mobile networks, the wholesale market for access and call origination in mobile networks and the wholesale market for fixed transit services.

#### 5. Competitive safeguards

The key competitive safeguards foreseen under the EU 1998 regulatory framework have been implemented:

- CPS on fixed networks has been available since January 2005, and CS since July 2006 for all types of calls: local, national, international and to mobile numbers;
- number portability has been available on fixed networks since July 2005 and on mobile networks since October 2006;



- RIOs have been published by fixed and mobile operators with SMP;
- The RUO has been available since October 2005 and regulated wholesale bitstream access reference offer since December 2007.

The interconnection and LLU charges were approved by the Agency on the basis of benchmarking.

## 6. Universal service and consumer issues

The NRA 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. It can designate one or more providers of universal service based on a public tender procedure. Alternatively, under the previous Telecommunications Act of 2003, a public voice telephony service provider with a market share greater than 80% could be required to provide universal service without a tender procedure. In November 2005 the NRA designated T-HT as the USO provider for a five-year period.

Article 36 of the new Electronic Communications Act provides for a designation mechanism of one or several universal service providers in line with the provisions of article 8 of the Universal Service Directive.

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

## 7. European Union

In late 2007, the EC noted that Croatia had improved its ability to take on the obligations of membership and progress in many areas. In particular:<sup>77</sup>

Some progress has been made in the area of information society and media. However, further efforts are needed for effective liberalisation of the telecoms market, including introduction of a new primary law and further strengthening of the Agency. Overall, Croatia has reached a good level of alignment with the *acquis* in this chapter.

In a Council Decision of February 12, 2008, a number of priorities were identified for Croatia.<sup>78</sup> The key priorities included judicial reform, public administration reform and the implementation of the anti-corruption programme. Work on competition law was required in the alignment of state aid rules and legislative measures for effective anti-trust control in the setting of fines and judicial control.

For the information society, the priorities were to:

- complete the alignment with the *acquis* concerning electronic communications, commerce, signatures and media, information security and the Television without Frontiers Directive;
- ensure sufficient administrative capacity to enforce the *acquis*, in particular in the field of electronic communications and provide a track record of the enforcement of obligations on operators with significant market power and the rights of new entrants on the electronic communications market, including rights of way, co-location and facility sharing; and
- complete the planned review of audiovisual media legislation on the basis of public consultation, to ensure regulatory independence and guard against undue political interference.

## 8. Outlook

Following the adoption of the Electronic Communications Act of 2008, based on the principles of the EU 2003 regulatory framework, the main priorities are the adoption of the implementing legislation, carrying out the market analyses and the development of regulatory cost accounting methodologies to ensuring effective wholesale price control mechanisms for fixed and mobile networks.

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<sup>77</sup> Communication from the Commission to the European Parliament and the Council Enlargement Strategy and Main Challenges 2007-2008. COM(2007) 663 final

<sup>78</sup> Council Decision (2008/210/EC) of 12 February 2008 on the principles, priorities and conditions contained in the Accession Partnership with Croatia and repealing Decision 2006/145/EC.

## B. The Former Yugoslav Republic of Macedonia (FYROM)

### 1. Legal and institutional framework

#### a) Electronic Communications Law

The primary legislation for the telecommunications sector is the Electronic Communications Law of March 5, 2005, which is based on the EU 2003 regulatory framework. It establishes the national regulatory authority and defines its responsibilities along with those of the government and the relevant ministry.

#### b) Ministry of Transport and Communications

The Ministry of Transport and Communications is responsible for policies and for drafting legislation for the electronic communications sector, as well as for preparing the national strategy for the development of electronic communications and information technology.<sup>79</sup>

#### c) Agency for Electronic Communications

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

AEC is governed by a Commission consisting of five members, including the President, who acts as a chairperson of meetings of the Commission. The President and the other 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 terms of office of the AEC Commission members and its Director are five years, with a possible reappointment for an additional consecutive five-year term.

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

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

#### d) Information society

A Commission for Information Technology was established in 2002. It is responsible for information society policy and coordinates the country's information society activities. In particular, it prepared the national strategy for information society development and action plan (current version of April 2005).

The Statistical Office is responsible for information society statistics. The Ministry of Finance is supervisory authority for electronic signature. FYROM has not designated a body responsible for network and information security. The Macedonian Academic Research Network operates as national domain name registry.

FYROM has transposed the E-Commerce Directive, the Electronic Signatures Directive and the Cybercrime Convention.

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<sup>79</sup> <http://www.mtc.gov.mk/>

## 2. Regulatory independence

### a) Privatisation and operational 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 Deutsche Telekom Group. In 2006, further shares in Makedonski Telekom were sold to institutional investors. Currently, the Government controls a 36.81% stake plus one 'golden share' in the incumbent operator. The state ownership and control functions are exercised by the Ministry of Finance.

The Electronic Communications Law stipulates that the members of the AEC Commission and its Director may not be owners of or shareholders in regulated entities or perform any tasks that would result in a conflict of interests.

### b) Administrative independence

Under the Electronic Communications Law, the AEC has been granted the powers to perform its regulatory tasks. The Government has no right to intervene in the adoption by the AEC of decisions on a discretionary basis. Its roles are limited to setting the amount of one-off fees for spectrum licences awarded in public tenders and the approval of the designation of a universal service provider selected by AEC in a public tender, though the agreement with the selected provider is concluded by AEC.

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

## 3. Market access and authorisations

The country introduced full liberalisation of public fixed telephone networks and services in the second half of 2005.

The Electronic Communications Law establishes a general authorisation regime where electronic communications networks and services can be provided without individual licences, subject to a general authorisation with a notification submitted to the AEC before the start of activities. It is required to issue a written confirmation of the notification within 15 days of its receipt. Individual licences are issued by AEC for the right to use radio spectrum.

Registered providers of public electronic communications networks and/or services pay an annual administrative fee to AEC. The maximum amount of the fee may not exceed 0.5% of the gross annual revenues derived from the provision of public communications networks and/or services during the previous calendar year.

Some aspects of the implementation of the Electronic Communications Law have been delayed, due to the concessions previously issued by the Government under the Telecommunications Law to Makedonski Telekom, its subsidiary T-Mobile and to the rival mobile operator, Cosmofon. While the Electronic Communications Law introduced a general authorisation regime, the concessions were to be harmonised with the new law within nine months from its entry into force in May 2005. That process has not been completed and the provisions set out in the concessions covering authorisations for the use of frequencies, requirements in terms of quality of service and the regulations of end user prices remain in force.

Only on July 24, 2008 the Parliament enacted amendments<sup>80</sup> to the Law of Electronic Communications (published in Official Gazette 98/08 on August 4, 2008). Amendments cancel the concession contracts of Makedonski Telekom AD-Skopje, T-Mobile and Cosmofon AD. In September 2008 AEC confirmed to the operators their notifications for provision of electronic networks and services according to their cancelled concession contracts and issue in 15 days corresponding registrations and radio frequency authorisations.

#### 4. Significant market power

The Electronic Communications Law provides for market analyses, definition of relevant markets, SMP designations and the imposition of remedies on SMP operators, based on the principles of the Law on Competition (as amended)<sup>81</sup> and the EU 2003 regulatory framework.

In August 2005, the AEC Commission adopted a Decision on the determination of relevant markets that sets out 18 product markets according to the EC Recommendation of 2003, all are national in their geographic scope.

The Law requires AEC to carry out market analyses 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 market for individual mobile networks (market 16/2003), designating T-Mobile and Cosmofon as having SMP and imposing regulatory obligations in January 2008.

Until AEC has completed its market analyses, the transitional provisions of Article 146 of the Electronic Communications Law provide for the designation of Makedonski Telekom as having SMP in fixed voice telephone networks and services and data transmission and leased lines services. It is required to provide 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 a reference offer for the minimum set of leased lines, accounting separation, price control and cost accounting obligations.

#### 5. 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 enable CS/CPS for local calls;
- The RIO of the fixed incumbent operator has been available since February 2006, while RIOs of the two mobile operators with SMP were submitted for approval to the AEC in April 2008 and will be published as soon as the final decisions have been taken;
- The RUO has been available since May 2006 but so far there has been only one agreement on LLU between Makedonski Telekom and the major alternative operator On.Net, owned by Telekom Slovenije;
- Initially, 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 until September 2008, due to the cancellation of a procurement exercise for the central database equipment.

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<http://www.aec.mk/Portals/0/20080807/ZAKON%20ZA%20IZMENUVAVE%20I%20DOPOLNUVAWE%20NA%20ZAKONOT%20ZA%20ELEKTRONSKITE%20KOMUNIKACII.pdf>

81 <http://www.kzk.gov.mk/eng/law.asp>

## 6. 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, making and receiving local, national and international telephone calls, facsimile communications and data communications at a minimum speed of 2,400 bit/s;
- access to the 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, 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. In January 2008, AEC launched a pre-qualification for universal service providers. Two companies successfully passed the first phase and AEC is now preparing the tender documentation.

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

## 7. European Union

In late 2007, the EC noted that the Former Yugoslav Republic of Macedonia had made progress in its economic reforms. It faced “major shortcomings” in implementation and enforcement, in part due to large scale replacement of qualified staff following political changes. Competition law was mostly in line with the *acquis*, and the capacity and the independence of the competition authority had been strengthened.<sup>82</sup>

In particular, progress has been made in aligning the legislation with the *acquis* and in strengthening competition in the area of *information society and media*. However, in the field of electronic communications, the country is still in breach of its obligations under the Stabilisation and Association Agreement. In all sectors, implementation and enforcement of the legislation remains weak, while the independence of the regulators is not sufficiently ensured.

In a Council Decision of February 18, 2008, a number of priorities were identified for FYROM.<sup>83</sup> The key priorities included strengthening the independence and capacity of the judicial system, implementation of anti-corruption legislation, ensuring recruitment and career advancement of civil servants was not subject to political interference and enhance the general business environment by further improving the rule of law, strengthening the independence of regulatory and supervisory agencies, speeding up legal procedures and continuing registration of property rights. While there had been good progress in the anti-trust aspects of competition law there had been none state aid legislation and monitoring.

For the information society, the priorities were to:

- end the breach of the Stabilisation and Association Agreement by taking all necessary measures to fulfil the obligation to liberalise the electronic communications sector, including adoption of all the secondary legislation required and further strengthening of the regulatory bodies;
- enforce competitive safeguards for operators with significant market power;
- reinforce the independence and administrative capacity of the regulatory authorities for electronic communications and media;

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<sup>82</sup> Communication from the Commission to the European Parliament and the Council Enlargement Strategy and Main Challenges 2007-2008. COM(2007) 663 final

<sup>83</sup> Council Decision (2008/212/EC) of 18 February 2008 on the principles, priorities and conditions contained in the Accession Partnership with the Former Yugoslav Republic of Macedonia and repealing Decision 2006/57/EC.

- ensure a stable and sustainable source of funding for the public service broadcaster and the Broadcasting Council.

## 8. Outlook

The main priorities of the AEC remain the implementation of competitive safeguards, in particular LLU, number portability and reference interconnection offers for the mobile operators with SMP. Other issues include the market analyses, effective enforcement of regulatory obligations and the implementation of the universal service framework.

## C. Turkey

### 1. Legal and institutional framework

The long-awaited Electronic Communications Law (Law No. 5803)<sup>84</sup> was adopted by the Parliament on August 1, 2008. The law changes the name of the national regulatory authority (formerly the Telecommunications Authority) to Information Technology and Communications Authority (ITCA). Overall, the law brings the Turkish regulatory framework closer to the EU 2003 framework, especially in the area of authorisations.

The entry into force of the new law was, however, vetoed by the President who refused to sign it and returned to the parliament with a list of objections. The objections do not focus on the economic or technical aspects of the regulatory framework but rather on some logical inconsistencies of the law, or on some institutional and personnel issues at ITCA. Here are some examples:

- Article 59 which ends up requiring independent audit and inspection organisations to recruit inspectors exclusively from former inspectors of ITCA.
- Article 60/1 states that administrative fines, imposed by ITCA for non-compliance of authorisation conditions, are limited to 5% of the previous year's net sales revenue for the "relevant service". The presidency has objected that such penalties may be too low and that the law does not explain how the 'net sales of the relevant service' may be calculated as operators often sell services in bundles.
- Two of the objections relate to privileges that board members or authority officials would continue to receive once their terms are terminated.

#### a) Ministry of Transport

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

#### b) Telecommunications Authority

The Telecommunications Authority (TA) is an administratively and financially independent national regulatory authority for the telecommunications sector.

The decision making body of TA is the Telecommunications Board, consisting of seven members, including a Chairman and a Vice Chairman. The Chairman is also responsible for the general management and representation of TA. Board members are appointed for a period of five years by the Council of Ministers, such to the approval by the President of the Republic. They are nominated as follows:

- two by operators having at least 10% market share;
- one by the Ministry of Industry and Trade;
- one by the Union of Chambers of Commerce and Industry; and
- three by the Ministry of Transport.

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<sup>84</sup> <http://www.tbmm.gov.tr/kanunlar/k5803.html>

The Board members can only be dismissed before the completion of their term by the Council of Ministers because of their inability to work, due to serious illness, professional misconduct or criminal offences.

TA has independent sources of finance, including frequency fees, pre-determined contributions from operators, fines levied on operators and revenues obtained through consultancy and training. Any surplus at the end of the year is transferred to the Treasury. The accounts of TA are audited by the Supreme Audit Council of the Prime Minister, the Ministry of Finance and the Council of Inspectors of the Prime Minister.

The TA's responsibilities cover issuing of authorisations for telecommunications networks and services, regulation, inspection and arbitration. TA has three main types of legal instruments at its disposal to execute its regulatory intervention in descending legal hierarchy:

- ordinances (or Regulations);
- communiqués; and
- 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 appellate body for the decisions of TA, but this has yet to be accomplished.

#### c) Information society

The State Planning Organization (SPO) of the Prime Ministry has a broad scope of responsibilities. It prepares the Council of Ministers' long-term development plans and annual programmes for all kinds of state planning including setting macroeconomic goals and alignment with the EU in general. Developing the Information Society Strategy (which is in its current version valid for the period from 2006 to 2010) is one of the many planning tasks of the SPO. Such strategies are adopted by the High Planning Council, which is composed of the Prime Minister, various other ministers and the Undersecretary of the SPO.

Other bodies that have information society responsibilities are the Turkish Statistical Institute (information society statistics), TR-CERT (information security policy) and the National Research Institute of Electronics and Cryptology (UEKAE, awareness raising against security threats including spam). The Telecommunications Authority is also in charge for supervising electronic signature. An organisational unit of the Middle East Technical University is the national domain name registry.

Turkey has transposed the Electronic Signatures Directive. It has not ratified the Cybercrime Convention, but the crimes listed in this convention are considered as criminal offences in the Turkish Penal Code.

## 2. Regulatory independence

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, 55% of the shares in Türk Telekom were sold at auction 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 share of Türk Telekom have been trading on the Istanbul Stock Exchange.

The Government currently retains 30% of shares of Türk Telekom, in addition to its golden share. It also controls the Turkish satellite and cable TV operator Turksat, and remains an important shareholder in the mobile operator, Avea, which is 81.1% owned by Türk Telekom. The ownership and golden share functions are exercised by the Treasury, while the Ministry of Transport is responsible for operational activities, in particular of Turksat. Therefore, the separation of regulation from ownership and control functions has yet to be achieved.

## 3. Market access and authorisations

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

- authorisation agreement – issued to operators where state ownership is more than 50%;



- concession agreement – issued, following a tender, 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 a local level;
- Type 2 licence – issued to companies providing telecommunications services or networks, where the number of providers is not limited. This category includes long distance telephony services (A, B and C-types), cable television, 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 defines 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 (€286,000);
- B-type (CS services) - TRY 253,976 (€127,000); and
- C-type (services provided through a 10-digit number assigned by the TA) - TRY 126,988 (€64,000).

The annual fee is 0.5% of net sales, plus a further annual administrative fee of 0.35% of net sales.

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

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.

In August 2007, TA had introduced a licence for Fixed Telecommunications Services which covered the provision of voice telephony, data, payphones and value added services at the local level over the fixed network. This was seen as an important measure that would enable new entrants to enter the market for local voice telephony services (including of both carrier selection codes and the assignment of E.164 numbers).

On January 23, 2008 the 13<sup>th</sup> Chamber of the Council of State issued an injunction against the decision on the grounds that a single licence was used to enable the provision of more than one telecommunications service (i.e. voice and Internet). So far, no licences for the provision of local telephone services have been issued and Türk Telekom remains the only provider.

Between August 12 and 28, 2008 TA ran a consultation on a draft [amendment](#) to the authorization ordinance that introduces a new annex for the authorization of fixed telephone services.

Although the new law, when it will come into force provides for a general authorisation regime, several months will be necessary for TA to issue the necessary secondary legislation. In order to speed up the opening of the market, TA wants to find a short term solution.

#### 4. Significant market power

Although the EU 2003 regulatory framework has not been formally implemented into law, TA decided in its 2005 work plan to adopt the definition of the 18 relevant markets according to the EC Recommendation of 2003 and conduct market analyses as foreseen under the EU framework. Market definitions and SMP definition in accordance 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, TA completed its analysis of the wholesale markets for mobile access and call origination and for voice call termination on individual mobile networks, corresponding to markets

2003/15 and 2003/16, respectively. All three MNOs, Turkcell, Vodafone and Avea were designated as having SMP in the mobile call termination market, with Turkcell also having SMP in the mobile access and call origination market.

- In March 2006, TA completed its analysis of the fixed markets, both wholesale and retail, corresponding to markets 2003/1-14, and designated Türk Telekom as having SMP in those markets.

TA has some discretion in imposing regulatory obligations, but certain remedies are predefined by law.

The Ordinance on Access and Interconnection, adopted in 2007, provides that once an interconnection obligation has been imposed on an operator with SMP, non-discrimination, transparency and cost-orientation obligations are triggered automatically.

## 5. Competitive safeguards

The following competitive safeguards have been implemented in Turkey:

- CS/CPS on 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 not yet available for local calls;
- RIOs have been published by fixed and mobile operators with SMP;
- The RUO has been available since November 2006 and a regulated reference offer for wholesale bitstream access since August 2007;
- number portability, following the implementation of the centralised reference database in May 2008, is to be implemented by November 2008 for mobile networks and by May 2009 for fixed networks.

## 6. 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, passenger transport services to places that can be reached only through sea transport, and maritime emergency and security communications services. Apparently the passenger transport services relate to two islands in the Aegean where private companies are not willing to provide services during the winter.

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 information society (February 2006), and
- 2) services for the provision of the digital broadcasting by the utilisation of various broadcast media and technology via digital terrestrial transmitters to cover the entire settlements countrywide (April 2006).

The Universal Service Law envisages a tender procedure for the designation of universal service providers that has not yet been implemented. 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 on the basis of a tender procedure. In rural regions, where the cost of service provision is high, the Ministry is also authorised to impose temporary 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 currently still provided by Türk Telekom in accordance 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 can be increased by up to 20% by the Council of Ministers. The revenues are collected by the Treasury and allocated to the budget of the Ministry of Transport, although it has yet to make any payments to operators.

## 7. European Union

In late 2007, the EC noted that Turkey need a comprehensive reform programme to address structural weaknesses in its economy.<sup>85</sup> In particular with regard to *information society and media*, Turkey made some progress. Market liberalisation in the electronic communications and information technologies continued.

In a Council Decision of February 18, 2008, a number of priorities were identified for Turkey.<sup>86</sup> The reform of public administration was needed to ensure greater efficiency, accountability and transparency, plus a fully operational ombudsman system and the adoption and implementation of legislation on the court of auditors.

For the information society, the priorities were to:

- adopt a new Electronic Communications Law aligned with the current EU Regulatory Framework;
- complete the adoption and implementation of the key 'starting conditions' for the 2002 EU regulatory framework; and
- continue alignment of legislation in the field of audiovisual policy, in particular with regard to the Television without Frontiers Directive.

In the medium term to:

- continue the transposition and implementation of the *acquis* in the electronic communications area and prepare for full liberalisation of the markets,
- further align with the audiovisual *acquis* and strengthen the independence and administrative capacity of the regulatory authority.

## 8. 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, in particular 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 the regulatory authority.

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<sup>85</sup> Communication from the Commission to the European Parliament and the Council Enlargement Strategy and Main Challenges 2007-2008. COM(2007) 663 final

<sup>86</sup> Council Decision (2008/157/EC) of 18 February 2008 on the principles, priorities and conditions contained in the Accession Partnership with the Republic of Turkey and repealing Decision 2006/35/EC.

## D. Albania

### 1. Legal and institutional framework

#### a) Law on Electronic Communications

The new Law on Electronic Communications (Law No. 9918 of May 19, 2008) that entered in force on June 26, 2008 is the principal legal instrument for the regulations of the electronic communications sector and defines the institutional framework, including the responsibilities of the government, the relevant ministry and the national regulatory authority. It replaced the previous Law on Telecommunications (Law No. 8618 of June 14, 2000) and is intended to bring Albanian law into line with the EU 2003 regulatory framework for electronic communications.

#### b) Ministry of Public Works, Transport and Telecommunications

The Ministry of Public Works, Transport and Telecommunications is the central state administration body competent for electronic communications and postal services.<sup>87</sup> Its Directorate of Posts and Telecommunications carries out the day-to-day work.

The Ministry is responsible for preparing and presenting for the approval by the Council of Ministers policies concerning electronic communications, drafting relevant primary and secondary legislation and preparing the National Radio Frequency Plan. It also approves tender procedures for frequency assignment and the designation of universal service providers, based on proposals by the regulator.

#### c) Authority of Electronic and Postal Communications

The Electronic Communications Act established the Authority of Electronic and Postal Communications (AEPC) as the new regulatory authority that took over the tasks and responsibilities of the previous regulator for telecommunications, the Telecommunications Regulatory Entity (TRE). AEPC is a public, independent, legal entity, outside the state budget responsible for carrying out regulatory tasks defined by the Law on Electronic Communications, including adoption and administration of implementing legislation within its competencies.

AEPC has 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 further term. The Assembly designates one of the members of the Governing Council as the Chairman, who also acts as the Executive Director of AEPC.

AEPC is a self-financed entity funded from the annual market supervision fees paid by operators and service providers. It is required at the beginning of each financial year to present its forecast budget for approval by the Council of Ministers. Any surplus of revenues over is at the end of the year is transferred to the state budget.

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

Appeals against decisions of the Governing Council may be brought before the Tirana District Court (the Court of First Instance).

#### d) Information society

A government body responsible for information society development was established close to the Prime Minister's cabinet, but has been dissolved. Currently, the Ministry of Public Works, Transport and Telecommunications is in charge of information society policy.

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<sup>87</sup> <http://www.moi.gov.al/english/>

The Institute of Statistics (INSTAT) is responsible for information society statistics, but such statistics are not yet available. A national authority on electronic signature will be established under the Ministry of the Interior. Albania has not designated a body responsible for network and information security in general, but two directorates (one accountable to the Council of Ministers and one to the State Information Service) are responsible for policy and security of state secrets. AEPC is also the national domain name registry.

Albania has transposed the Electronic Signatures Directive and ratified the Cybercrime Convention.

## 2. Regulatory independence

### a) Privatisation and operational independence

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

Currently, the state retains 24% of shares in Albtelecom and Eagle Mobile and 12.6% shares in the mobile operator AMC. The ownership functions are exercised by the Ministry of Economy, Trade and Energy.

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

However, the complete separation of operational from regulatory functions has not yet been accomplished as officials of the Ministry of Public Affairs, Transport and Telecommunications are represented on the managing boards of the former state-owned operators.

### b) Administrative independence

The Electronic Communications Act substantially extends the powers of AECP to issue regulations and perform its regulatory functions without any intervention by the Ministry or by the Government. In particular, AECP is now authorised to set out administrative fees, to impose price control obligations (along with other regulatory obligations) on operators with SMP and set out methodologies for regulation of tariffs without any requirement for the Ministry approval.

The administrative independence of AECP is undermined by legal provisions restricting its ability to decide independently on its organisation structure and the salary levels. As with the previous Law on Telecommunications, the new Law on Electronic Communications maintains the requirement for AECP organisational structure and salary levels be approved by the Assembly on the proposal of the Council of Ministers.

Another factor undermining NRA independence is the recent record of repeated dismissals of its Council members. The grounds for these actions have not always been stated in a clear and transparent manner, giving rise to concerns that they may have been politically motivated.

## 3. Market access and authorisations

The liberalisation of fixed electronic communications networks and services was introduced gradually: starting with rural local networks in 1998, then domestic long-distance networks in July 2003 and international networks in January 2005. 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 operator Albtelecom and no licensing framework had been established for urban local networks.

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 introduces a general authorisation regime in which electronic communications network and services that do not require the use of limited resources can be provided without individual licences. This is subject to a notification submitted to AECF which must complete the registration within 15 days.

Individual licences are issued by AECF for the right to use radio spectrum.

There are plans to licence a fourth GSM mobile operator in compliance with the provisions of the new law.

#### 4. Significant market power

Under the Law on Telecommunications of 2000, the NRA had discretion to define relevant markets applying competition law principles. The designation of SMP was on the basis of the static 25% market share threshold, sometimes combined with assessment of other criteria. Basic remedies applicable to all operators with SMP were specified by the Law on Telecommunications, while some further discretionary remedies were specified in the 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 on individual mobile networks and retail public mobile services, imposing the regulatory obligations of access and interconnection, non-discrimination, transparency (including the requirement to publish a RIO), price control, accounting separation and cost accounting.

On November 13, 2007 the regulator designated Albtelcom as having SMP in six markets, covering retail access and publicly available phone calls at a fixed location, wholesale call termination on geographic numbers on the 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: CS/CPS, access and interconnection, non-discrimination, transparency (including the requirement to publish a RIO), price control, accounting separation and cost accounting.

The new law provides for market analyses, the definition of relevant markets, SMP designations and the imposition of remedies on SMP operators based on the principles of the Law No. 9121 on the Protection of Competition of July 28, 2003 and the EU 2003 regulatory framework.<sup>88</sup> It also requires the AECF to carry out market analyses at least once every two years. Until the Agency has completed its first round of market analyses under the new framework, the previous SMP designations and regulatory obligations remain in force.

#### 5. Competitive safeguards

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

- In March 2008 Albtelcom, AMC and Vodafone submitted their first RIOs to the regulator for approval and the decision on compliance of RIOs will be adopted following a public consultation.
- In June 2008 the Council of Ministers (which was still competent for this kind of decisions under the old law) adopted the price control measures for retail and wholesale tariffs of Albtelcom, AMC and Vodafone. Subsequently, the NRA decided that the measures will come into force on September 1, 2008.
- The NRA adopted Regulation in December 2007 on Access and interconnection that includes the rules for publication and content of the RUO, but there is no obligation yet for Albtelcom to provide LLU or to publish its RUO.
- CS/CPS was imposed as a regulatory obligation on Albtelcom but implementation is not foreseen before 2009.

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<sup>88</sup> <http://go.worldbank.org/BKB2R8ZAT0>

- No decision on implementation of number portability has been adopted so far. The new law provides that it should be implemented within 12 months, i.e. by June 2009.

## 6. Universal service and consumer issues

Under the Law on Electronic Communications, AECPC can designate one or more universal service providers based on a public tender procedure, subject to the 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 kbit/s;
- telephone directory;
- public payphones; and
- equivalent access to and use of telephone service made available to 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.

## 7. European Union

In late 2007, the EC noted that:<sup>89</sup>

*Work towards fulfilling Albania's SAA commitments on information society and media is lagging behind. Market liberalisation in the areas of electronic communications and information technologies remains at an early stage. The regulatory framework is not yet in line with the acquis and the telecommunications regulator needs to develop its capacity.*

In a Council Decision of February 18, 2008, a number of priorities were identified for Albania.<sup>90</sup>

Amongst the key priorities were the strengthening of administrative capacity and public-sector governance, increasing the independence, accountability and transparency of the justice system and the implementation of the 2007-2013 anti-corruption strategy. In the short-term action was required on competition law, to improve alignment with the *acquis communautaire* and to strengthen the administrative capacity of the competition authority.

For the information society the short-term priorities were to:

- ensure that electronic communications legislation is in line with the *acquis* and is enforced and take measures to achieve a competitive market for electronic communications networks and services.
- strengthen the expertise and capacity of the Telecommunications Regulatory Entity.
- align Albanian legislation with the European Convention on Transfrontier Television and the Television without Frontiers Directive.
- strengthen the administrative capacity of the National Council on Radio and Television and adopt the strategy for development of the radio and television sector and an updated national analogue and digital frequency plan for radio and television.

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<sup>89</sup> Communication from the Commission to the European Parliament and the Council Enlargement Strategy and Main Challenges 2007-2008. COM(2007) 663 final

<sup>90</sup> Council Decision (2008/210/EC) of 18 February 2008 on the principles, priorities and conditions contained in the European Partnership with Albania and repealing Decision 2006/54/EC.

In the medium-term the priorities were:

- further transpose and implement the EU framework for electronic communications.
- continue the process of alignment with the European Convention on Transfrontier Television and the Television without Frontiers directive.

## 8. Outlook

Among the outstanding issues is the adoption of the implementing legislation under the Law on Electronic Communications and a closer alignment of the legislation with the EU framework. Competitive safeguards, such as number portability, CS/CPS, local loop unbundling and costing models for the introduction of cost-based tariffs remain to be introduced. AECIP needs to strengthen and deepen its expertise.



## E. Bosnia and Herzegovina

### 1. Legal and Institutional framework

#### a) Law on Communications

The Law on Communications of October 21, 2002 defines the institutional framework in respect of the policy making and the regulation of the electronic communications sector. Within the scope of the law are included telecommunications, radio, broadcasting, cable television, and associated services and facilities.

#### b) Council of Ministers

The Council of Ministers is responsible for adopting policies for communications. The Ministry of Communications and Transport develops policies and prepares primary and secondary legislation.

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

#### c) Communications Regulatory Agency

The Law on Communications establishes the Communications Regulatory Agency (RAK) as a functionally independent and 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 are decided by the RAK Council. It consists of seven members nominated by the Council of Ministers and appointed by the Parliament. The Council adopts codes of practice and rules for broadcasting and telecommunications, as well as its own internal rules.

RAK is headed by a Director General, who is proposed by the RAK Council 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 has the sole authority to dismiss the members of the RAK Council before completion of their mandate. Similarly, the Council of Ministers has the sole authority to dismiss the Director General before completion of his or her term. Both, members of the RAK Council and the Director General have terms 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 which acts according to the Law on Administrative Procedures making a full review of the decision. Pending the outcome of the appeal, the effect of the decision is not suspended. Decisions of the RAK Council are final in the administrative procedure. Legal review of the decision can be brought before the State Court.

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

#### d) Information society

The Ministry of Communications and Transport is in charge of information society policy. According to strategic documents (Policy for Development of the Information Society, Strategy for Development of the Information Society and Action Plan for Development of the Information Society), an Agency for Development of the Information Society of Bosnia & Herzegovina (ARID) shall be established. A law has been drafted, but not adopted by parliament. ARID shall also be become responsible for information society statistics.

Bosnia & Herzegovina has not designated a body responsible for network and information security and not established a supervisory body for electronic signature. The University Teleinformatic Centre is the national domain name registry.

Bosnia & Herzegovina has transposed the Electronic Signatures Directive and ratified the Cybercrime Convention.

## 2. Regulatory independence

### a) Privatisation and operational independence

There are three incumbent operators, one in each of the three territories. The Federation government of Bosnia and Herzegovina 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 in the Republika Srpska is now fully 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 with a bid of €646m. The privatisation was finished in July 2007, after 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.

### b) Administrative independence

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

The new Law on Salaries and Allowances for Civil Servants adopted on June 23, 2008, may hinder RAK's independence by bringing the salary levels 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.

A factor that to some extent undermines the independence of RAK is the present uncertainty over the Director General, which complicates and slows down decision-making processes at RAK. After the mandate of the previous Director General had expired in 2007, the Council of RAK proposed to re-appoint him for another term. On September 27, 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 the formal approval of the Council of Ministers.

## 3. Market access and authorisations

The liberalisation of the telecommunications sector was completed on January 1, 2006 with the 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 the level of €511, while the annual fees are determined by the scope of provided services: €255,600 for each of the three incumbent operators for the provision of public fixed telephone networks and services; €35,800 paid by public fixed telephone service providers without own networks; €2,500, €5,000 and €25,000 for local, regional and national networks, respectively.

## 4. 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 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, provision of CS/CPS.

## 5. Competitive safeguards

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

- CS/CPS was introduced in July 2007 but remains at an early stage with only two alternative operators providing CS services;
- RIOs for the three fixed incumbent operators have been available since November 2006;
- RUOs are expected to be published by October 2008;
- the timeframe for implementation of number portability in fixed and mobile networks has so far has not been decided (pending adoption of the new sector policy by the Council of Ministers).

## 6. Universal service and consumer issues

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

Currently, the requirement to offer the minimum scope of universal services is covered by the terms of licences 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; free access to emergency services.

A draft regulation on a more comprehensive universal service framework has been submitted by the NRA for approval by the Council of Ministers.

## 7. European Union

In late 2007, the EC noted that Bosnia and Herzegovina had made little progress towards establishing a functioning market economy and that major reforms would be needed to enable it to cope with competitive pressures and market forces within the EU.<sup>91</sup>

In particular:

As regards *information society and media*, some progress has been made in terms of liberalisation of the telecommunication sector and approximation of audiovisual legislation with the *acquis* by the Communications Regulatory Agency. No progress has been made on public broadcasting and the establishment of a State-level information agency.

In a Council Decision of February 18, 2008, a number of priorities were identified for Bosnia and Herzegovina.<sup>92</sup> The key priorities included federal public broadcasting legislation, public administration reform and ensure that state-level ministries and institutions were adequately financed and staffed.

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<sup>91</sup> Communication from the Commission to the European Parliament and the Council Enlargement Strategy and Main Challenges 2007-2008. COM(2007) 663 final

<sup>92</sup> Council Decision (2008/211/EC) of 18 February 2008 on the principles, priorities and conditions contained in the Accession Partnership with Bosnia and Herzegovina and repealing Decision 2006/55/EC.

For the information society, the short term priorities were to:

- adopt the Law on the Information Society Agency and establish the Agency;
- implement and enforce the regulations on telecommunications/electronic communications aiming at a fully liberalised and competitive market. Introduce the necessary competitive safeguards in the market; and
- maintain the independent position of the Communications Regulatory Authority. Strengthen its administrative capacity.

In the medium term to:

- fully implement public broadcasting legislation and complete the structural reform of the public broadcasting sector;
- align legislation with the EU regulatory framework for electronic communication networks and services and ensure implementation and enforcement; and
- align with the European Convention on Trans-frontier Television and the Television without Frontiers directive.

## 8. 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 is expected to provide a clear time frame for implementation of competitive safeguards. A prerequisite for effective functioning of the national regulatory and policy-making authorities is the resolution of the uncertainty around the appointment of the Director General of RAK and strengthening of the institutional capacity of both the NRA 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 the 3.5 GHz spectrum band for fixed wireless access.

## F. Montenegro

### 1. Legal and institutional framework

#### a) Law on Electronic Communications

The new Law on Electronic Communications that was adopted on July 29, 2008 (Official Gazette 50/2008) entered into force on August 27, 2008 and is the new principal legal instrument for the regulations of the electronic communications sector. It defines the institutional framework, including the responsibilities of the government, the relevant ministry and the national regulatory authority. It replaced the previous Law on Telecommunications of 2000 and is intended to bring Montenegrin law into line with the EU 2003 regulatory framework for electronic communications.

#### b) Ministry of Maritime Affairs, Transportation and Telecommunications

The Ministry of Maritime Affairs, Transportation and Telecommunications is the government department overseeing the telecommunications sector.<sup>93</sup> Its main responsibilities include:

- developing national strategies and legislation for telecommunications;
- adopting secondary legislation within the legal framework;
- supervision of the implementation of the Law and secondary legislation; and
- judicial review of the NRA decisions, in the first instance.

#### c) Agency for Electronic Communications and Postal Services

The Agency for Telecommunications and Postal Services was founded in 2001 by a decision of the government as a regulatory body, functionally independent of all entities operating telecommunications networks or providing telecommunications services.

The new Law on Electronic Communications changes the name of the regulator into the Agency Electronic Communications and Postal Services. It also redefines the key functions of the Ministry and the regulator making a clear division between the legislative and policy-making tasks carried out by the Ministry (and the government) and the regulatory tasks performed by the Agency. The new Law also makes the Agency a single regulatory body responsible for spectrum assignments in both telecommunications and broadcasting sectors, while the Broadcasting Authority will now be only responsible for broadcasting programme content issues.

The new Law changes the management structure of the Agency. Until now, the head of the Agency is a Director appointed by the government for a period of four years, with the possibility of reappointment for a second consecutive term. Under the new Law, the Agency will be governed by the Council, consisting of the President and four members, while its professional services will be managed by the Executive Director. The Council will be appointed by the Government upon the Ministry proposal to a term of office of 5 years. The Executive Director will be appointed by the Council, for a term of office of 4 years. They shall not hold office for more than two consecutive terms.

The Agency is established as a self-financing entity, funded from three main sources: administrative fees, numbering fees and spectrum fees. The amount of fees to be paid to the Agency budget by authorised operators and service providers under the new Law will be approved annually by the government after the Agency has presented its financial plan and proposed fees calculated according to the methodology approved by the Ministry. If the funds collected by the Agency exceed its expenditure for a fiscal year, the new Law no longer requires the Agency to transfer the surplus to the state budget allowing to move it in the next year's budget.

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<sup>93</sup> <http://www.vlada.cg.yu/eng/minsaob/>

The new Law also modifies the appeal system for the Agency decisions. If in the past the decisions of the Agency were considered as final in the administrative procedure and could only be appealed to the Supreme Administrative Court of Montenegro, the new Law gives the Ministry the power of judicial review of the Agency decisions in the first instance.

d) Information society

The Secretariat for the Development of Montenegro is a government office lead by a state secretary. It is responsible for several state planning tasks, amongst others information security policy, information society statistics, e-government and electronic signature. Surveys for information society statistics are conducted by an independent economic institute (ISSP). A Council for Information Society has been established as high level consultative body. It has regular sessions at the cabinet of the Prime Minister.

The Council for „.me“ domain has been established by a government decision. It decides on domain name policy and selected the agent for the registry.

Montenegro has transposed the Electronic Signatures Directive. It has not ratified the Cybercrime Convention.

2. Regulatory independence

a) Privatisation and operational 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 hold the remaining 23.47% of the shares which are quoted on the stock exchange.

b) Administrative independence

Until now, the Agency has been able to exercise its functions with relatively little political or arbitrary intervention by the government or specifically by the Ministry, despite the fact that the government appoints the senior management of the Agency.

It remains to be seen the extent to which the powers of the Agency and its independence will be preserved under the new Law on Electronic Communications adopted in July 2008. Article 130 of the new Law authorises the Ministry to perform “supervision of legality and purposefulness” of the NRA activities. A commentary to this article in particular clarifies that this supervisory function should not be applied to the regulatory decisions and regulatory rules adopted by the NRA, where the NRA must be independent.

3. Market access and authorisations

Montenegro formally introduced full liberalisation of local, domestic long-distance and international networks and services on January 1, 2004. However, the high licensing fees, especially for international services, created a barrier to entry. Only in April 2007 the annual fee for international services was reduced from €100,000 to €1,000 effectively enabling a competitive market entry.

In practice competition has only emerged in mobile networks, with the market entry in 1996 of Promonte, owned by the Norwegian operator, Telenor and T-Mobile, the incumbent’s mobile subsidiary in 2000 (Monet, at that time). A third mobile operator, M:Tel, owned by the Serbian incumbent operator entered the market in 2007.

First licences enabling the provision of fixed voice telephony services by alternative operators were issued in late 2007 and early 2008. Following several successive public tender procedures, the Agency issued eight licences for the provision of VoIP services and four for FWA services in the 3.4-3.8 GHz band. The minimum one off-fee for FWA licence was set at €175,000 and the winning offers ranged from €1,050,000 to €175,000. The total proceeds of VoIP tender amounted to €60,000 with winning bids ranging from €10,500 to €15,000. So far, only one alternative provider, M:Tel has launched commercial provision of fixed voice telephony services on a large scale.

#### 4. Significant market power

Under the Telecommunications Law of 2000, the Agency has discretion to define relevant markets using competition law principles. Undertakings with SMP are designated on the basis of a simple 25% market share threshold, sometimes combined with the assessment of other criteria.

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

To date, no comprehensive market analysis procedures have been carried out by the Agency. Under the provisions of the Telecommunications Law of 2000, the fixed incumbent operator, Crnogorski Telekom, is deemed to have SMP in the markets for fixed networks and services and in Internet services, while T-Mobile and Promonte have SMP in mobile networks and services. The regulator, however, refrained from applying the SMP obligations to mobile operators.

The new Law on Electronic Communications of July 29, 2008 contains new transitional provisions that designate Crnogorski Telekom as having SMP in the markets for fixed voice telephone networks and services including the markets for data transmission services and leased lines. Under the same provisions, all fixed and mobile network operators are deemed to have SMP in the markets for call termination in their respective networks, while the national broadcasting operator in the market for broadcasting transmission services.

#### 5. Competitive safeguards

Only a few of the key competitive safeguards foreseen under the EU 1998 regulatory framework have been implemented in Montenegro.

The first RIO of Crngorski Telekom was published in December 2004. In April 2008, the NRA approved a new RIO introducing some reductions to interconnection charges based on EU benchmarks. The first RIOs of T-Mobile and Promonte are expected to be submitted for approval by the NRA during 2008.

CS/CPS regulation was introduced in December 2007 and applies to both fixed and mobile networks. However, only Crngorski Telekom has introduced CS in its RIO so far.

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

#### 6. Universal service and consumer issues

There is no established framework for the universal service.

#### 7. European Union

In late 2007, the EC noted that in Montenegro the public administration was weak and inefficient, requiring further efforts to ensure its impartiality and to strengthen its capacity. Some progress had been made in reforming of the judicial system. Corruption was widespread and constituted a "very serious problem".<sup>94</sup>

In particular:

There has been some progress in the area of *information society and media*. Legislative measures are needed to effectively liberalise the electronic communications market and to align with the *acquis* on information society services. While the broadcasting agency has become fully operational and has an independent status, its capacity needs to be strengthened. Montenegro has not yet ratified the UNESCO Convention on cultural diversity and has not signed and ratified the European Convention on Transfrontier Television. Preparations in this area are at an early stage.

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<sup>94</sup> Communication from the Commission to the European Parliament and the Council Enlargement Strategy and Main Challenges 2007-2008. COM(2007) 663 final

In a Council Decision of January 22, 2007, a number of priorities were identified for Montenegro.<sup>95</sup> The key priorities included a new constitution, continued efforts to reform the public administration, reform of the judicial system and enhancing the fight against organised crime and corruption.

For the information society, the short term priorities were to:

- strengthen the agency for telecommunications to foster competition in the market by applying the relevant legislation, in particular in relation to the introduction of the necessary competitive safeguards in the market;
- improve the administrative capacity of the Ministry of Economy in the area of electronic communications. Take further steps in tariff balancing, further address the terms and conditions of interconnection tariffs, and address the issue of licence fees;
- guarantee the operational independence of the broadcasting authority;
- ensure a smooth transformation of Montenegrin radio and television into a public service provider, and ensure means for its efficient functioning.

In the medium term to:

- finalise transposition into national legislation of the EU 2002 framework for electronic communications;
- establish a competitive electronic communications market through progressive implementation of legislation, and by applying competitive safeguards and addressing any existing market entry barriers;
- maintain the independence of the regulatory authorities and ensure there are sufficient resources and expertise to execute their tasks; and
- fully align legislation to the audiovisual *acquis*.

## 8. Outlook

The key outstanding issues that must be addressed are implementation of competitive safeguards, market analysis procedures and methodologies for price control of wholesale tariffs.

The independence of the regulatory body might be a significant problem following the adoption of new Law on Electronic Communications. The institutional and administrative capacity of the Ministry will have to be improved in order to enable it to manage its new tasks in a credible manner.

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<sup>95</sup> Council Decision (2007/49/EC) of 22 January 2007 on the principles, priorities and conditions contained in the Accession Partnership with Montenegro.



## G. Serbia

### 1. Institutional framework

#### a) Ministry of Telecommunications and Information Society

The Ministry of Telecommunications and Information Society is the central state administration body competent 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.

#### b) Republic Telecommunications Agency

The Telecommunications Law of 2003 establishes the Republic Telecommunications Agency (RATEL) as 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 statute of RATEL, approved by its Managing Board regulates 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.

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

#### c) Information society

One of the sectors of the Ministry for Telecommunications and Information Society is responsible for information society issues, in particular for developing the information society development strategy and for e-government. The ministry is also the supervisory authority for electronic signature.

The National Information Technology and Internet Agency is subordinate to the ministry and responsible to improve and monitor electronic government development and to standardise the fields of ICT, ICT

security and Internet use. The Statistical Office is responsible for information society statistics. RNIDS, a non profit association of Internet service providers and university institutions is the national domain name registry. Domain name policy is not regulated by law, it is part of RNIDS' general terms and conditions.

Serbia has transposed the Electronic Signatures Directive. It has not ratified the Cybercrime Convention, but most crimes listed in this convention are considered as criminal offences in the Serbian Criminal Code. A law on e-commerce is under preparation.

## 2. Regulatory independence

### a) Privatisation and operational 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. Currently, the Ministry responsible for the telecommunications policy is also in charge of 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.

### b) Administrative independence

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 from the relevant ministry (in this case, the Ministry of Telecommunications and Information Society) an opinion on compliance of the regulation with the Constitution, other relevant laws and regulations. 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 timely. 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 for 120 days, starting June 13, 2008, all the powers and responsibilities performed by RATEL. 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 opinion and to suspend publication in the Official Gazette of any RATEL's regulations not covered by positive opinion of the Ministry. On June 19, 2008 the government, however, 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.

## 3. 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 remains the only licensed public fixed voice telephony operator and the only operator authorised to interconnect with international telecommunications networks.

The 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. Market access conditions for new entrant mobile operators remain problematic as obtaining construction permits for network rollout is subject to complex bureaucratic procedures.

To certain extent, there is some competition in provision of Internet services. Most of the ISPs, however, provide ADSL services based on the incumbent's wholesale offer and relying on its international connectivity.

The delayed liberalisation of the sector is largely due to 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 the liberalisation, but so far, there have been no initiatives from the Serbian government to enable 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 in among the eight SEE countries and is about 1/15 of the EU 27 average).

Another factor is the lack of licensing framework for fixed telephony services. Under the Telecommunications Law, provision of any services that require 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.

#### 4. Significant market power

RATEL has discretion to define relevant markets applying competition law principles. The undertakings with SMP, however, 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 program distribution via cable network and imposed obligations of accounting separation and retail price control.

#### 5. Competitive safeguards

None of the key competitive safeguards foreseen under the EU 1998 regulatory framework have been implemented in Serbia. The first RIO was prepared by the fixed incumbent operator in August 2008, but it has not been approved by the regulator yet. In practice, RIO applies only to interconnection with mobile networks, as there are no alternative fixed network operators.

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.

#### 6. 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 at the proposal of RATEL, while RATEL has to designate the universal provider and establish the universal service fund. None of this has been achieved yet.

## 7. European Union

In late 2007, the EC noted that in Serbia the regulatory bodies need to be strengthened to ensure the necessary oversight and enforcement of legal obligations, while judicial reform had been delayed. Reforms were required to build an impartial, accountable and efficient civil service. Moreover corruption was widespread and a serious problem.<sup>96</sup>

In particular:

There has been little progress in the area of *information society and media*. The national Broadcasting Agency needs to improve overall transparency and accountability.

In a Council Decision of February 18, 2008, a number of priorities were identified for Serbia.<sup>97</sup> The key priorities included ensure that the constitution was in line with European standards and to continue reform of the public administration and of the judiciary, in order to guarantee its independence, accountability, professionalism and efficiency. The fight against corruption had to be enhanced at all levels

For the information society, the short term priorities were to:

- ensure full liberalisation of the electronic communications sector and the independence of the regulatory bodies;
- ensure that the strategy adopted is put into effect, including adoption and implementation of the necessary laws and policies, and strengthen administrative capacity;
- start approximation to the *acquis* on the audiovisual sector and improve transparency and accountability, particularly of the Republican Broadcasting Agency; and
- sign and ratify the European Convention on Transfrontier Television.

In the medium term to:

- start implementation of the EU framework for electronic communications and continue alignment with the EC *acquis* for the audiovisual sector

## 8. Outlook

In general, Serbia is still at a very early stage of liberalisation. The adoption of the necessary implementing legislation has been very slow which is often due to the insufficient administrative capacity and level of expertise of the relevant authorities, which needs to be strengthened. The Ministry has announced that it started drafting a new legislation based on the EU 2003 regulatory framework.

The key outstanding issues that must be addressed are: liberalisation of the fixed voice telephony networks and services, alignment with the R&TTE Directive, 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.

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<sup>96</sup> Communication from the Commission to the European Parliament and the Council Enlargement Strategy and Main Challenges 2007-2008. COM(2007) 663 final

<sup>97</sup> Council Decision (2008/213/EC) of 18 February 2008 on the principles, priorities and conditions contained in the European Partnership with Serbia including Kosovo as defined by United Nations Security Council Resolution 1244 of 10 June 1999 and repealing Decision 2006/56/EC

## H. Kosovo

### 1. Legal and institutional framework

#### a) Introduction

Since 1999, the institutional arrangements in Kosovo have been governed by United Nations Security Council Resolution 1244 (UNSCR 1244), adopted on June 10, 1999. This 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 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 were divided between UNMIK and the Kosovar Provisional Institutions of Self-Government (PISG), comprising the President, the Assembly (*Kuvendi*) and the cabinet of ministers, headed by the Prime Minister.

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

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

#### b) United Nations Interim Administration Mission in Kosovo (UNMIK)

Under the constitutional framework established by the international administration, specific responsibilities were reserved for UNMIK, including two aspects of telecommunications:

- Administration of state-owned and socially-owned companies by the Kosovo Trust Agency (KTA), including the incumbent fixed and mobile operator, Post and Telecom of Kosovo (PTK); and
- Management of spectrum by the Frequency Management Office (FMO) with assignment performed by the national regulator, the TRA.

The declaration of independence facilitated the anticipated transfer of these responsibilities from UNMIK to the national institutions. In particular, KTA is being transformed into the Kosovo Privatisation Agency (KPA) under the Ministry of Economy and Finance, while spectrum management functions are being transferred to the TRA.

#### c) Ministry of Transport and Communications

The Ministry of Transport and Communications (MTC) has responsibility for developing policies and legislation for the provision of services and facilities in telecommunications and information technology. In the field of telecommunications, the Ministry monitors compliance with the European best practices including tariffs and fees, quality of service and technical standards, developing policies to promote competition and better services for consumers.

#### d) Authority of Electronic and Postal Communications

The Telecommunications Regulatory Authority (TRA) was established under the Telecommunications Law of May 2003 (UNMIK Regulation 2003/16<sup>98</sup>) and began operations in January 2004. The TRA is responsible for implementing the telecommunications sector policy in compliance with the relevant

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<sup>98</sup> [http://www.unmikonline.org/regulations/2003/RE2003\\_16%20.pdf](http://www.unmikonline.org/regulations/2003/RE2003_16%20.pdf)

legislation, the adoption of regulations under the Telecommunications Law, issuing licences and authorisations for the provision of telecommunications networks and services, management of the numbering and spectrum resources (the latter, until recently, in coordination with UNMIK).

The TRA is managed by a board comprising five members who are appointed to and relieved from office by the Assembly, acting on the proposal of the government and the recommendation from the Minister of Transport and Communications. Their term of office is five years with the possibility of reappointment for one further consecutive term. The Minister of Transport and Communications, acting in consultation with the Prime Minister, designates one member of the Board to be Chairman, who is responsible for administrative and operational issues.

TRA is established as a self-funded body and non-profit legal entity, with the main sources of finance collected from 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 any surplus funds collected by the TRA are transferred at the end of the year to the Kosovo consolidated budget.

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

e) Information society

The Ministry of Transport and Communications is in charge for information society policy, although some of the competencies (in particular network and information security policy) are shared between this ministry and the Ministry of Public Services.

The Statistical Office is responsible for information society statistics. Kosovo has not established a body responsible for electronic signature. According to the Telecommunications Sector Policy, TRA will become responsible for domain name policy and will select the agent for the registry when Kosovo will acquire its own ccTLD.

The Law on the Information Society Services transposes in several chapters most of the relevant EU legislation on electronic commerce, electronic signatures, distance contracts, electronic invoicing, data protection in general (Directive 95/46/EC) and data protection in electronic communications<sup>99</sup>. It also contains a chapter on cybercrime. Kosovo is in the process of ratifying the Cybercrime Convention.

2. Regulatory independence

a) Privatisation and operational independence

The incumbent operator, PTK, is 100% state-owned and until recently, under the control of the Kosovo Trust Agency, within the UNMIK administration. KTA is being transformed into the Kosovo Privatisation Agency under the Ministry of Economy and Finance which will be operationally separate from both MTC and TRA.

Although the issue of the privatisation of PTK was addressed in the Telecommunications Sector Policy, adopted by the government in June 2007, it is unlikely that PTK will be fully or partially privatised in the near future.

b) Administrative independence

The TRA was established under the Telecommunications Law as an independent regulatory body, with competencies to issue regulations for implementation of the Law. Nonetheless, its operations have been subject to political and administrative interference, by both UNMIK and the government.

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<sup>99</sup> The Privacy Directive 2002/58/EC is transposed both in the Law on the Information Society Services and in the Law on Telecommunications, which may lead to some confusion.

One example was the intervention by UNMIK to cancel the tender procedure for the second mobile licence being conducted by the TRA in 2004. The basis for this was the responsibility for spectrum management reserved to UNMIK.

Another factor undermining the status of the NRA as an independent institution is 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 pursuant to the applicable budget procedures pertaining to all Government funds in Kosovo.”

These have been interpreted as barring the 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 Finance to make all its payments through the treasury, in the same way as other budgeted agencies, so that, in practice, it was unable to manage its funds independently. Furthermore, under the treasury payment procedures, the salaries of TRA staff have been linked to civil servant pay scales, making it impossible for the TRA to decide independently on salaries and thus being unable to recruit and to retain qualified professionals.

On June 13, 2008 the Assembly adopted a set of amendments to the Telecommunications Law that are intended to strengthen the independence of the NRA. In particular, the amendments:<sup>100</sup>

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

### 3. 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 significantly delayed.

The first authorisations for three national ISPs were issued in May 2005. A comprehensive licensing framework for telecommunications operators was adopted only in September 2005. PTK maintained its exclusive right over access to international gateway facilities until December 31, 2007.

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

In addition to the operators licensed by TRA, two mobile operators licensed by Serbia maintain their presence in Kosovo without authorisation from the Kosovar authorities.

### 4. Significant market power

Under the Telecommunications Law, the NRA has discretion to define relevant markets by the application of competition law principles. Undertakings with SMP are designated on the basis of a simple 25% market share threshold, sometimes combined with the assessment of other criteria.

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<sup>100</sup> Law on Amending UNMIK Regulation No. 2003/16 on the Promulgation of a Law adopted by the Assembly of Kosovo on Telecommunications - 2008/03-L085  
[http://www.assembly-kosova.org/common/docs/ligjet/2008\\_03-L085\\_en.pdf](http://www.assembly-kosova.org/common/docs/ligjet/2008_03-L085_en.pdf)

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

So far no comprehensive market analyses have been carried out by the TRA. By the provisions 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.

## 5. Competitive safeguards

Kosovo is still lagging behind with implementation of the key competitive safeguards foreseen under the EU 1998 regulatory framework.

- The first RIO of the fixed incumbent operator, PTK, was approved by the TRA on January 12, 2007.
- The TRA mediated the interconnection dispute between Vala and IPKO, and set out mobile termination rates, using a benchmark.
- In May 2007, the TRA adopted a policy framework for MVNO operators and issued licences to two MVNOs. While there are no legal obligations concerning access, MVNOs can be launched on the basis of a commercial agreement with one of the two MNOs.

There is no clear timeframe for the implementation of CS/CPS, number portability and local loop unbundling. The implementation of number portability was delayed by the fact no country code has been assigned to Kosovo by ITU-T. Currently the Serbian country code (+381) continues to be used for the fixed network, while mobile operators use two other codes: Vala uses Monaco (+377) and IPKO uses Slovenia (+386).

## 6. Universal service and consumer issues

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

According to the policy, the minimum scope of the 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, plus 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, one possible alternative would be the inclusion of universal service obligations in the licences of telecommunications operators and service providers.

No proposal has been yet presented by the authorities. In the absence of 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.



## 7. European Union

In late 2007, the EC noted that in Kosovo the efficiency of public administration had improved, but that the judicial system remained weak and unstable. Corruption was widespread and constituted a “very serious problem”.<sup>101</sup>

In particular:

There has been little progress in the area of *information society and media*. Effective liberalisation and enhancement of competition in the electronic communications market remain to be achieved. Progress was made in media reform, but the stable and sustainable funding of the public service broadcaster, independent media commission and the minority media fund needs to be addressed.

There is no individual partnership agreement with Kosovo, it continues to be included with Serbia.<sup>102</sup> A separate annex identifies priorities including ensuring democratic governance of public services, establishing a professional, accountable, accessible and representative public administration, one free from undue political interference.

The short term priorities were:

- adopt and begin implementing policy concerning electronic communication networks and services aimed at enforcing full liberalisation and creating a stable open and competitive environment in order to attract foreign investments and improve the quality of the service;
- strengthen the administrative capacity of the regulatory authority. Reinforce its position and ensure its operational and financial independence; and
- ensure stable and sustainable funding of the Public Service Broadcaster RTK, the Independent Media Commission and the media fund.

The medium term priorities were:

- align with the regulatory framework and implement the legislation on electronic communication networks and services to create a more open and competitive environment and strengthen the position and operational and financial independence of the telecommunications regulator.

## 8. Outlook

The main challenge is to ensure the functioning of the TRA as a truly independent institution, in line with the recently adopted amendments to the Telecommunications Law. A closely related issue 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 being drafted and the effective implementation of competitive safeguards.

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<sup>101</sup> Communication from the Commission to the European Parliament and the Council Enlargement Strategy and Main Challenges 2007-2008. COM(2007) 663 final

<sup>102</sup> Council Decision (2008/213/EC) of 18 February 2008 on the principles, priorities and conditions contained in the European Partnership with Serbia including Kosovo as defined by United Nations Security Council Resolution 1244 of 10 June 1999 and repealing Decision 2006/56/EC