



REPORT IV

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

December 2010

Executive Summary

This is the fourth and final report in a series of four interim study reports prepared over a three-year project of monitoring the eight South East European countries that are seen as potential members of the European Union, either in the short or medium term: Croatia, the former Yugoslav Republic of Macedonia (FYROM), Turkey, Albania, Bosnia & Herzegovina, Montenegro, Serbia and Kosovo¹. The report looks at the market developments and the progress towards achieving compliance with the EU rules for electronic communications and information society services over the past nine months since the publication of the previous report.

The economies of the Enlargement countries could not avoid the consequences of the global financial and economic crisis of 2008-09, although they were late in entering the recession. The International Monetary Fund's World Economic Outlook Update² released in October 2010 suggests a shrinking GDP in 2009 for most of the monitored countries, except for Albania and Kosovo which were forecast to grow by the respective 3.3% and 4%. Croatia, Turkey and Montenegro are reported to have been worst hit in 2009. The Turkish economy, however, is also expected to be the fastest to recover reaching 7.8% growth in GDP already in 2010.

The economic crisis was accompanied by depreciation of national currencies resulting in the apparent decline in the value of specific telecommunications markets expressed in euro. After an uninterrupted growth that had been ongoing since 2005, the electronic communications sector fell by 6.75% down to €15.3 billion in 2009 from €16.4 billion in 2008. Particularly strong decline was observed in the two largest segments of mobile and fixed telephony services, each shrinking in value by 9.4%. At the same time, internet access and broadband services are playing an increasingly significant part in the electronic communications sector. In 2009, this segment had grown by almost 19%. Even stronger growth by over 25% was achieved by a still relatively small segment of cable TV services.

Fixed voice telephony services continue to be dominated by incumbent operators and there has been little progress towards more competition. In Serbia, even in spite of adoption of the new law based on the EU 2003 and 2009 regulatory framework, a new entry in fixed telephony market will not be possible before 2012. Despite formal liberalisation, competitive market entry remains problematic in most countries in the absence of tariff rebalancing, fixed number portability and local loop unbundling. Only Croatia, FYROM and Turkey have advanced in implementing the key competitive safeguards.

In terms of the number of subscribers using alternative operators by means of direct access, carrier selection and pre-selection and wholesale line rental (only available in FYROM), there has been a particularly strong growth in Croatia and FYROM, reaching respectively 30% and 19% of fixed lines. A reverse trend was observed in Turkey, showing a steady reduction in the number of subscribers of alternative fixed operators: from 13% of fixed lines in 2008 to 4% in 2010.

The average fixed broadband penetration rate for the eight countries in January 2010 was 9.4% of population, significantly below the EU-27 average rate of 24.8%. The highest penetration of 16% was observed in Croatia. Broadband markets are dominated by fixed incumbent operators in the countries where xDSL is the main access technology: Croatia, Turkey and Montenegro. The market shares are more equally balanced in FYROM, Albania and Bosnia & Herzegovina, where competitors are using alternative infrastructures – primarily, cable and fixed wireless access networks. In Kosovo and in Serbia, the market shares of the incumbent operators are below 50%. At the same time, in Serbia a significant number of alternative operators rely on the wholesale offer from the incumbent.

Competition has been effectively implemented in the mobile sector. Mobile penetration continued to grow, reaching and sometimes surpassing the level of the EU-27, with Montenegro (209%), Croatia (136%) and Serbia (132%) in the lead. The figures, however, have been revised downwards in several countries using

¹ Under the United Nations Security Council Resolution 1244 of June 10, 1999 (UNSCR 1244), hereafter Kosovo

² <http://www.imf.org/external/pubs/ft/weo/2010/02/pdf/exesum.pdf>

a more consistent subscriber activity period of three months for prepaid subscribers. This brings the average mobile penetration rate for the eight monitored countries to 94.7%.

With 3G mobile services now available in most of the monitored countries, except for Albania and Kosovo, the growth of mobile broadband has also continued. The average penetration of dedicated mobile broadband cards was 5.4% in July 2010. Montenegro stands out with 23%, mainly explained by a large number of prepaid cards issued during summer holiday season. In the remaining five countries where commercial mobile broadband services are available, the highest mobile broadband penetration of 6.1% was observed in Croatia – same as the EU-27 average reported for the same period. In Albania, a single 3G licence was issued to Vodafone on December 2, 2010 and the operator announced plans to launch 3G services already before the end of 2010. Croatia and FYROM have also allowed the deployment of 3G services in the 900 MHz and 1800 MHz frequency bands.

Several countries have progressed with market analyses during 2010. New rounds of market analyses have been completed or are close to being completed in FYROM, Turkey, Albania and Montenegro. The regulators in FYROM, Turkey and Albania have defined relevant markets based in the 2003 Commission recommendation on relevant markets, while the Montenegrin regulator applied market definitions based on the 2007 recommendation. The Albanian and Macedonian regulators have made major progress with implementing regulatory cost accounting methodologies for setting cost-oriented wholesale prices of the fixed and mobile operators with significant market power.

National legislation based on the EU 2003 regulatory framework has been adopted in Albania, Croatia, FYROM, Montenegro, Turkey and now also in Serbia. The new Serbian Electronic Communications Law was adopted in June 2010 and the ministry and the regulator have to finalise the implementing secondary acts within one year from its entry into force. Croatia has started drafting amendments to the national legislation based on the EU 2009 framework.

The EU legal framework for information society services has been largely introduced into national legislation, in particular the provisions on legal recognition of electronic contracts and electronic signatures and measures to tackle cybercrime and spam. Turkey plans to align its legislation with the Electronic Commerce Directive by April 2011. Bosnia & Herzegovina needs to amend its Criminal Code in order to comply with the Convention on Cybercrime. In some countries, drafting new legislation is a slow process or depends on support by international experts.

The Turkish law regulating publications on the internet has been frequently applied to block popular websites and presents a cause for concern. In Serbia and FYROM, lawsuits against the newly introduced legislation on data retention are pending at the constitutional courts.

All countries have designated a government body – typically a ministry – which is in charge of preparing the national strategy on information society development and has some coordinating role at the state and the international levels. The responsibilities for network security policy and related public awareness activities are less clearly defined. Only Croatia and Turkey have a Computer Emergency Response Team, but Albania and Montenegro plan to establish CERTs.

In Croatia, FYROM, Turkey and Serbia the national statistics institutes are collecting information society statistics on an annual basis and integrated with Eurostat. The national statistics institutes in Albania and Montenegro have started to conduct surveys. In Bosnia & Herzegovina and Kosovo it is unclear when comprehensive information society statistics would become available.

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 some of the new EU member states in the region. Turkey and Kosovo reported large gaps between male and female usage of computers and the internet.

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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, Depreciation 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 PRA	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
UNDP	United Nations Development Programme
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 also 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 employment³ and are further emphasised in the recently adopted Europe 2020 agenda⁴.

Telecommunications policies have come to occupy an important position in the economic development of nations.⁵ 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 with state ownership no longer being considered essential for the achievement of national goals and recognised as a potential obstacle to fair competition. Privatisation also provided a welcome source of revenue for the state, rather than state-owned operators demanding funds for investments.

A. EU regulatory framework for electronic communications

In the European Union, the regulatory environment for the telecommunications or electronic communications sector⁶ 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 services 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.⁷ 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 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 and transposed by Member States in 2003: Framework, Authorisation, Access, Universal Service, e-Privacy and Competition Directive. 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, with regulators being given a choice of the remedies to apply to such operators;
 - all electronic communications networks and services were regulated, including broadcasting transmission networks.⁸

³ http://ec.europa.eu/information_society/eeurope/i2010/index_en.htm

⁴ http://ec.europa.eu/europe2020/index_en.htm

⁵ The Seoul Declaration for the future of the Internet economy, June 18, 2008, Ministerial session. Paris: OECD. <http://www.oecd.org/dataoecd/49/28/40839436.pdf>

⁶ Since 2002, the legislation has referred to “electronic communications” to reflect convergence, for example, it also applies to broadcasting networks. In this report, the term electronic communications is used when describing aspects that relate specifically to the 2003 regulatory framework. The term telecommunications is used to describe general aspects that do not relate to a specific regulatory framework.

⁷ Greece, Ireland, Portugal and Spain had derogations on their introduction.

This became known as the “2003 *acquis*”.⁹

4. In June 2006 the European Commission published a communication on the review of the 2003 regulatory framework.¹⁰ Then, in November 2007, it adopted a series of legislative proposals that were debated in the European Parliament and the Council of Ministers over two years, until a compromise agreement was finally reached in November 2009.

The directives amending the EU 2003 regulatory framework for electronic communications and the Regulation establishing the Body of European Regulators for Electronic Communications (BEREC) and the supporting Office were published in the EU Official Journal on December 18, 2009. The revised Framework, Access and Authorisation Directives, along with the revised Universal Service and e-Privacy Directives entered into force on December 19. They have to be transposed by member states into national law by May 25, 2011.

The Regulation establishing BEREC and its supporting Office entered into force on January 7, 2010.

The most significant elements of the EU 2009 regulatory framework are:¹¹

- Creation of BEREC, as a platform for NRAs to ensure a consistent application of the EU regulatory framework. Aside from providing advice to Parliament, the Commission and the Council on all matters regarding electronic communications, BEREC will be able to give (non-binding) opinions on draft Commission measures and will have an advisory role in the market analysis notification process under articles 7 and 7a of the Framework Directive.
- Contrary to the initial Commission’s proposals, there will be no veto for the Commission on remedies proposed by NRAs in their market analyses notifications. However, where BEREC shares the Commission’s concerns over remedies proposed by an NRA, BEREC and the NRA should “cooperate closely to identify the most appropriate and effective measure”. Through the reinforced harmonisation procedure, the Commission can propose binding decisions to address inconsistent regulatory approaches of NRAs on market analysis notifications.
- The inclusion of functional separation as a remedy of “last resort”. This means 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 but better harmonised radio spectrum management with technology and service neutrality. Spectrum trading to be permitted in bands designated by the EC under a regulatory procedure and, optionally, in additional bands designated by individual member states.
- Consumer protection aspects, including new provisions on number portability within one working day, limited duration of binding contracts, better consumer information, internet access as a fundamental right, new guarantees for an open and more “neutral” net. Changes to network integrity, privacy and data protection.
- National telecoms regulators will gain greater independence. The new provisions reinforce national telecoms regulators’ independence by eliminating political interference in their day-to-day duties and by adding protection against arbitrary dismissal for the heads of national regulators.

A further important reform proposed by the Commission in parallel to the negotiations on the telecoms reform package was adopted on October 16, 2009: the amendment of the GSM Directive, which will allow operators to introduce new services, starting with 3G and extending later to other new technologies, to operate in the GSM 900 MHz band which was previously reserved exclusively for GSM services.

⁸ 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.

⁹ 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.

¹⁰ Report on the outcome of the Review of the EU regulatory framework for electronic communications networks and services. COM(2007) 696 final.

¹¹ http://ec.europa.eu/information_society/policy/ecomm/library/proposals/index_en.htm

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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).¹² NRAs can additionally use the “three criteria test” to find if any of the markets deleted from the list or some other market required analysis:¹³

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)

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 of fibre loops.
12	Wholesale broadband access	5	Wholesale broadband access	Non-physical or virtual network access (e.g., bitstream).
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

¹² 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

See also the explanatory note:

http://ec.europa.eu/information_society/policy/ecomm/doc/library/proposals/sec2007_1483_final.pdf

¹³ The test for economic regulation in telecoms: Three criteria and Significant Market Power, Brussels, December 9, 2008.

http://www.cullen-international.com/documents/cullen/cipublic/economicregtelecoms_9dec2008.cfm

2003 Recommendation		2007 Recommendation		Comment
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 2007.¹⁴ 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 Regulation was amended and extended in 2009 by setting maximum wholesale and retail charges for voice telephony roaming calls in the form of a three-year glide path and introducing new retail and wholesale price caps for SMS and a wholesale cap for data services.

B. Information society aspects

The EU started to address information society issues in early 1990ies. In the beginning, the legislative initiatives focused on completing the internal market by harmonising national legislation, for example by the Television without Frontiers Directive¹⁵ (1989) and proposals¹⁶ to harmonise the data protection rules in the internal market (1990). These proposals were later adopted as a general Data Protection Directive¹⁷ (95/46/EC) and a directive¹⁸ protecting personal data in the telecommunications sector (97/66/EC). In 2002, the latter was replaced by the e-Privacy Directive 2002/58/EC.

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”.¹⁹ Creating “an information society for all” became one of the main means to achieve 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.²⁰ The 2005 Commission communication ‘i2010 - A European Information Society for growth and employment’ formulated an integrated approach to promote the information society and audiovisual media throughout the EU. The i2010 communication has been implemented in all member states through national strategies.

In 2010 the Digital Agenda for Europe²¹ was adopted, one of the seven flagship initiatives proposed by the Commission in its Europe 2020 communication and the successor of the Lisbon Strategy.

The Electronic Commerce Directive²² 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 provides a safer legal environment for internet service providers, because it limits their liability for infringements by their subscribers or users. Some of the

¹⁴ 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.

¹⁵ 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.

¹⁶ OJ C 277 of November 5, 1990, p. 3 and 12, see also the later proposals in OJ C 311 of November 27, 1992, p. 30 and OJ C 200 of July 22, 1994, p. 4.

¹⁷ 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.

¹⁸ Directive 97/66/EC of the European Parliament and of the Council of December 15, 1997 concerning the processing of personal data and the protection of privacy in the telecommunications sector.

¹⁹ See the Council conclusions and later amendments at http://ec.europa.eu/growthandjobs/european-councils/index_en.htm.

²⁰ See http://ec.europa.eu/information_society/europe/i2010/index_en.htm.

²¹ Communication COM(2010) 245 from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A Digital Agenda for Europe. The Commission adopted the Digital Agenda on May 19, 2010. The Telecoms Council adopted (non-binding) conclusions on May 31, 2010 and the European Council endorsed the new strategy on June 17, 2010.

²² 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).

provisions of the Electronic Commerce Directive, in particular on transparency of online offers, were preceded by the Directive on the protection of consumers in respect of distance contracts.²³

The Electronic Signatures Directive adopted in 1999 established the legal framework for electronic signatures that are recognised legally equal to handwritten signatures.²⁴ Certification-service providers must not be subject to prior authorisation. Member states must establish a supervision system for those providers who issue qualified certificates.

According to the general Data Protection Directive and the e-Privacy Directive, personal data such as telecommunications traffic data must be deleted if they are no longer needed for the purpose for which they have been collected or processed. In particular, traffic data must be deleted, when they are no longer needed for billing. In 2006, the Data Retention Directive 2006/24/EC²⁵ established an exception to this general rule. For the purpose of investigation, detection and prosecution of serious crime, operators must retain telephony and internet traffic data for a period of six months to two years. This directive has been highly controversial. Constitutional courts in Romania and Germany repealed the legal provisions that transposed data retention in national law, as they considered it an infringement of basic rights.

Within the framework set out in the Digital Agenda for Europe, the Commission is currently reviewing several pieces of information society legislation:

- On November 4, 2010 the Commission published a communication²⁶ on a comprehensive approach on personal data protection in the European Union, in order to launch a consultation until January 15, 2010. On the basis of the responses received, the Commission will propose in 2011 legislation to revise the legal framework on data protection.
- According to article 15 of the Data Retention Directive, the Commission should have submitted an evaluation of the application of the directive and its impact on operators and consumers to the European Parliament and the Council by September 15, 2010. It is now expected that the Commission will submit this evaluation in early 2011.
- By the end of 2010, the Commission intends to publish an impact assessment of the Electronic Commerce Directive on online markets, which shall lead to concrete proposals to update the directive.
- In 2011, the Commission will propose a revision of the Electronic Signature Directive in order to enhance cross-border recognition and eventually also include electronic authentication systems.

C. Monitoring progress

Regulatory development has been supported by monitoring the progress in the national electronic communications 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 fifteenth report was adopted by the Commission in May 2010.²⁷ These reports examine major developments in the market and give an assessment of the implementation of the regulatory framework.

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 the 1998 regulatory framework with new directives which these countries had to transpose before they became member states.

As part of the preparation for the EU enlargement, monitoring of 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.

²³ 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.

²⁴ Directive 1999/93/EC of the European Parliament and of the Council of December 13, 1999 on a Community framework for electronic signatures.

²⁵ Directive 2006/24/EC of the European Parliament and of the Council of 15 March 2006 on the retention of data generated or processed in connection with the provision of publicly available electronic communications services or of public communications networks and amending Directive 2002/58/EC.

²⁶ Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions: A comprehensive approach on personal data protection in the European Union, COM(2010) 609 final.

²⁷ http://ec.europa.eu/information_society/newsroom/cf/itemdetail.cfm?item_id=5827

"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 last 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 codes²⁸ 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, though it is not recognised under this name by some countries. The EU refers to it by 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"> • The Federation of Bosnia & Herzegovina • Republika Srpska A separate federal district of Brčko belongs to both. In these 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 Telekom Srpske a.d. Banja Luka (BA-ts) based in Banja Luka, Republika Srpska
Montenegro	ME	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	-

²⁸ http://www.iso.org/iso/country_codes

Country	Code	Comments
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. ²⁹ On February 17, 2008 the Kosovo Assembly, elected in December 2007, adopted a resolution declaring Kosovo to be independent. ³⁰ 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. ³¹ Kosovo does not have an officially assigned ISO 3166 code. However, the structure allows for so-called user assigned codes. The code "XK" is used by Eurostat and some other organisations. ³²

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 2007.³³

The previous series of 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 13th and subsequent Implementation Reports by the European Commission and have also been subject to infringement proceedings for failures and errors in transposition and implementation.³⁴ They are no longer included in the monitoring exercise in South-East Europe.

This monitoring exercise covers the candidates and potential candidates for EU membership in South-East Europe.

²⁹ <http://www.un.org/Docs/scres/1999/sc99.htm>

³⁰ <http://www.assembly-kosova.org/?krye=home&lang=en>

³¹ http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressdata/en/gena/98818.pdf

³² 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

³³ 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>

³⁴ http://ec.europa.eu/information_society/policy/ecomm/implementation_enforcement/index_en.htm

At present, there are three candidates³⁵: 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 Commission decided to recommend the opening of negotiations with the country in October 2009. The three candidates have gone through a range of agreements as they have moved closer to membership.

In 2008, each candidate signed an Accession Partnership agreement with the EU:

- Croatia: [2008/119/EC](#)³⁶
- FYROM: [2008/212/EC](#)³⁷
- Turkey: [2008/257/EC](#)³⁸

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](#)³⁹
- Bosnia & Herzegovina: [2008/211/EC](#)⁴⁰
- Montenegro: [2007/49/EC](#)⁴¹
- Serbia: [2008/213/EC](#)⁴²
- Kosovo: [2008/213/EC](#)⁴³

They have undertaken to:

- align their telecommunications legislation with that of the EU;
- achieve competitive markets; and
- 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 the Western Balkans is known as the Stabilisation and Association Process (SAP).⁴⁴ The central element of 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.

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 & Herzegovina in June 2008. Before their entry into force, SAAs must be ratified by all the EU Member States.

³⁵ In July 2010 the EU opened accession negotiations with Iceland, the fourth candidate country, which is not covered in this monitoring project.

³⁶ Previous agreements are: [2006/145/EC](#), [2005/40/EC](#) and [2004/648/EC](#).

³⁷ Previous agreements are: [2006/57/EC](#), [2004/518/EC](#) and [2001/0049 \(ACV\)](#).

³⁸ Previous agreements are: [2006/35/EC](#), [2003/398/EC](#) and [2001/235/EC](#).

³⁹ Previous agreements are: [8164/06](#), [8154/06](#), [2006/54/EC](#) and [2004/519/EC](#).

⁴⁰ Previous agreements are: [2006/55/EC](#) and [2004/515/EC](#).

⁴¹ Previous agreements are: [2006/56/EC](#) and [2004/520/EC](#).

⁴² Previous agreements are: [2006/56/EC](#) and [2004/520/EC](#).

⁴³ Previous agreements are: [2006/56/EC](#) and [2004/520/EC](#), included as part of the agreement with Serbia.

⁴⁴ Although Croatia and FYROM have been granted candidate country status they remain part of SAP.

As part of the process of the agreement and the movement towards membership, annual progress reports are produced (see Table 3), with relevant details included in the country profiles (see Section VII). In 2009, the Commission summarised its activities in the Western Balkans.⁴⁵

The latest enlargement package was published by the Commission in November 2010, which includes the progress reports on all candidate and potential candidate countries and the Commission's opinions on Albanian and Montenegrin applications for the EU membership.⁴⁶

For Albania the opinion concluded that *"negotiations for accession to the European Union should be opened once the country has achieved the necessary degree of compliance with the membership criteria, and in particular the Copenhagen political criteria requiring the stability of institutions guaranteeing notably democracy and the rule of law."* Albania was urged to make further efforts to build on the progress to date.

For Montenegro the Commission considered that *"negotiations for accession to the European Union should be opened once the country has achieved the necessary degree of compliance with the membership criteria and in particular the Copenhagen political criteria requiring the stability of institutions guaranteeing notably the rule of law."* The Commission recommended *"that the Council grants the status of candidate country to Montenegro."*

Following Serbia's application for the EU membership, the Commission is expected to present its opinion in the second half of 2011.

Country	2010	2009	2008	2007	2006	2005
Croatia	SEC(2010)1326	SEC(2009)1333	SEC(2008) 2694	SEC(2007) 1431	SEC(2006) 1385	SEC(2005) 1424
FYROM	SEC(2010)1332	SEC(2009)1335	SEC(2008) 2695	SEC(2007) 1432	SEC(2006)1387	-
Turkey	SEC(2010)1327	SEC(2009)1334	SEC(2008) 2699	SEC(2007) 1436	SEC(2006) 1390	SEC(2005) 1426
Albania	SEC(2010)1335	SEC(2009)1337	SEC(2008) 2692	SEC(2007) 1429	SEC(2006) 1383	SEC(2005) 1421
Bosnia & Herzegovina	SEC(2010)1331	SEC(2009)1338	SEC(2008) 2693	SEC(2007) 1434	SEC(2006) 1384	SEC(2005) 1422
Montenegro	SEC(2010)1334	SEC(2009)1336	SEC(2008) 2696	SEC(2007) 1434	SEC(2006) 1389, SEC (2006) 1386	SEC(2005) 1428
Serbia	SEC(2010)1330	SEC(2009)1339	SEC(2008) 2698	SEC(2007) 1435	SEC(2006) 1389, SEC (2006) 1386	SEC(2005) 1428
Kosovo (under UNSCR 1244)	SEC(2010)1329	SEC(2009)1340	SEC(2008) 2697	SEC(2007) 1433	-	SEC(2005) 1423

Table 3 - Progress reports on candidate and potential candidate countries

The EC has provided 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.⁴⁷ Turkey and, as of 2004, Croatia, were also been eligible for the Programme of Community aid to the countries of Central and Eastern Europe [Phare].⁴⁸ From 2007 to 2013, both instruments were replaced by the Instrument for Pre-Accession (IPA).⁴⁹

Since its launch in 1999, the Stability Pact for South Eastern Europe recognised the potential of ICTs to foster economic development and to facilitate cooperation in the region. The Electronic South East Europe (eSEE) Initiative was established as one of the activities within the framework of the Second Working Table (Economy).⁵⁰ In 2002, during the "South Eastern Europe Conference on Policy and Cooperation in

⁴⁵ EU regionally relevant activities in the Western Balkans 2008/09. SEC(2009) 128 final.

⁴⁶ http://ec.europa.eu/enlargement/press_corner/key-documents/reports_nov_2010_en.htm

⁴⁷ 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

⁴⁸ 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

⁴⁹ Council Regulation (EC) No 1085/2006 of July 17, 2006 establishing an Instrument for Pre-Accession Assistance – IPA

⁵⁰ <http://www.eeseinitiative.org/> and <http://www.stabilitypact.org/e-see/>

Telecommunications” in Belgrade, ministers signed an eSEE Agenda for the Development of the Information Society. This 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 entities signed the eSEE Agenda+ for the development of the information society from 2007 to 2012. Implementation of these agreements is monitored and facilitated by the eSEE Secretariat, established in Sarajevo with funding from UNDP. In 2008, the Centre for eGovernance Development was established in Ljubljana, to provide support and coordination for the implementation of eSEE Agenda+ through education and training, workshops and seminars, and support in preparing project proposals.⁵¹

The ITU has a programme of training events for officials from regulators and ministries in Eastern Europe through its Centre of Excellence.⁵² 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.⁵³ 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 the table below. Some additional information has been taken from Eurostat.

Country	Electronic communications	Information society services
Croatia	Croatian Agency for Post and Electronic Communications (HAKOM)	Central State Administrative Office for e-Croatia
FYROM	Agency for Electronic Communications (AEC)	Agency for Electronic Communications (AEC) Ministry of Information Society
Turkey	Information and Communication Technologies Authority (ICTA)	State Planning Organisation (SPO)
Albania	Authority for Electronic Communications and Post (AKEP)	National Agency on Information Society (NAIS)
Bosnia & Herzegovina	Communications Regulatory Agency (RAK)	Ministry of Communications and Transport
Montenegro	Agency for Electronic Communications and Postal Services (EKIP)	Ministry for Information Society
Serbia	Republic Telecommunications Agency (RATEL)	Ministry for Telecommunications and Information Society
Kosovo (under UNSCR 1244)	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 for 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.

⁵¹ <http://www.cegd.eu/>

⁵² <http://www.itu.int/ITU-D/hrd/coe/eur/index.asp>

⁵³ <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 market information were July 1, 2010, for quarterly data and December 31, 2009, for annual data. Price information was reported as of July 1, 2010. Regulatory and institutional data were as of August 1, 2010, 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 since June 2009. 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 Implementation Reports.⁵⁴ 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 the indicators for electronic communications services closely follows the previous series of reports on "*Monitoring the telecommunications services sector and related aspects in South East Europe*" in the period 2005 to 2007.⁵⁵ These reports were used as models with appropriate changes and additions, taking utmost account of the Commission's Implementation Reports.

The indicators describe 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. Internet backbone data: data on Internet Exchange Points (IXPs) and international internet connectivity. The degree of control over major undertakings (fixed, mobile and ISP) exercised by foreign investors. The key financial ratios of the incumbent operators.

⁵⁴ http://ec.europa.eu/information_society/policy/ecommm/implementation_enforcement/index_en.htm

⁵⁵ 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.⁵⁶ Indicators were added to reflect NRA independence, powers, accountability and transparency.
- Market access conditions in electronic communications: liberalisation status of electronic communications networks and services and authorisation regimes for different categories of electronic communications services.
- Radio spectrum: authorities responsible for spectrum management, spectrum licences for mobile services and wireless broadband, forthcoming and recent spectrum awards, refarming of GSM spectrum in the 900 and 1800 MHz bands, analogue switchover and use of digital dividend.
- Implementation of the EU regulatory framework for market analyses by NRAs, national frameworks for market definitions, principles for the designation of operators with SMP and the imposition of remedies.
- Competitive safeguards: CS/CPS, number portability, implementation of reference interconnection and wholesale access offers (LLU, bitstream access, resale 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 the mechanisms to designate the provider(s), funding and quality of service; legislation on the rights of subscribers to be included or to be not included in subscriber directories, and the availability of comprehensive directories and directory enquiry services in practice; availability of the single European emergency number 112; and provisions on itemised billing.
- Retail tariffs:
 - Fixed tariffs: tariff rebalancing and the regulation of retail tariffs, call charging systems and the 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 2006 mobile baskets;⁵⁷
 - 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

The indicators for 'information society services'⁵⁸ have been chosen to address the following aspects:

- information society legislation and policy: list of the relevant legislation with official title and official gazette numbers, ongoing legislative work, bodies responsible for information society policy, relevant policy documents;
- fundamental rights and freedoms: constitutional guarantees for freedom of expression and privacy, laws or other mechanisms to restrict those freedoms by blocking certain users or blocking certain websites;
- information society statistics: national body responsible for information society statistics, types of statistical data that are available and key indicators such as computer and internet usage by individuals and by enterprises;

⁵⁶ <http://www.ectaportal.com/en/basic651.html>

⁵⁷ Previous reports used the 2002 baskets. However, in line with EC practice these now use the baskets described in DSTI/ICCP/CISP(2006)1 at [http://www.oelis.oecd.org/olis/2006doc.nsf/ENGDATCORPLOOK/NT00003A5E/\\$FILE/JT03212157.PDF](http://www.oelis.oecd.org/olis/2006doc.nsf/ENGDATCORPLOOK/NT00003A5E/$FILE/JT03212157.PDF)

⁵⁸ 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".

- network and information security: obligations on providers to ensure the network security and the security of processing personal data, measures to fight cybercrime, including whether a country has ratified the Council of Europe Convention on Cybercrime⁵⁹, the responsible authority for security policy, the existence of alert systems in case of threats and the national policy;
- electronic commerce and electronic signatures: market access and liability of information society services, 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 use 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
- 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.

⁵⁹ Council of Europe, Convention on Cybercrime, [ETS no. 185](#), Nov. 23, 2001.

VI. SUMMARY REPORT

A. Electronic communications market overview

1. Electronic communications market value

At this stage no complete financial data for 2009 are available. However, the recent IMF forecasts for 2009 suggest a shrinking in GDP for most of the Enlargement countries, with the only exception of Albania and Kosovo which were forecast to have grown in 2009 by the respective 3.3% and 4.0%. Croatia, Turkey and Montenegro are expected to have been worst hit in 2009. Turkey, however, is also expected to be the fastest to recover – reaching 7.8% growth in GDP already in 2010.

The economic crisis and recession of 2008–09 has caused significant and unanticipated fluctuations in exchange rates. As noted in previous reports, these have caused the apparent decline in the value of specific telecommunications markets when expressed in euro. Particularly strong depreciation of national currencies against euro was observed in Serbia (RSD by 15%), Turkey (TRY by 13%) and Albania (ALL by 7.5%).

In terms of value, the electronic communications market in the eight countries was estimated at €15.3 billion in 2009. This represents a 6.75% decrease from the market value of €16.4 billion in 2008. Particularly strong decline was observed in the two largest segments of mobile and fixed telephony services – by 9.4% each. Mobile telephony segment's revenue went down from €9,964 million in 2008 to €9,028 million in 2009, while fixed voice telephony – from €4,565 million to €4,137 million in 2009, respectively (see Figure 2 and Figure 3).

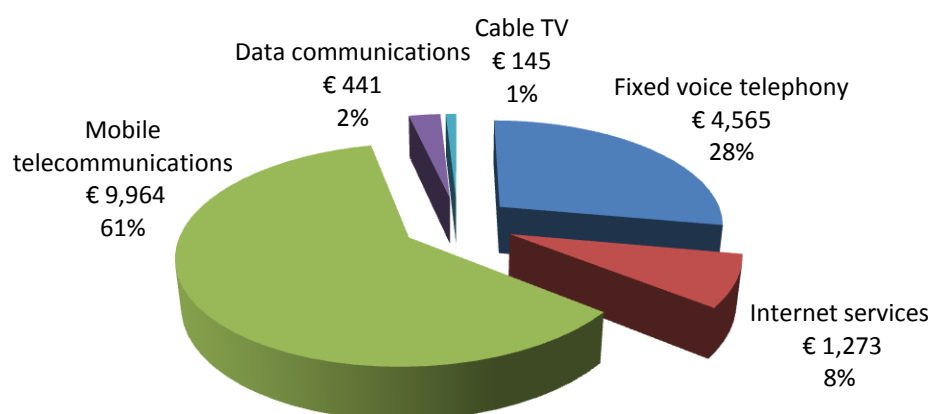


Figure 2 - Electronic communications market in 2008, in million €

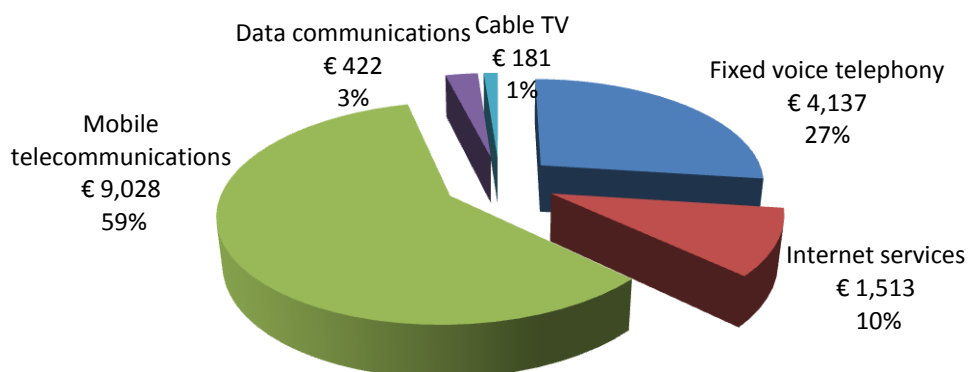


Figure 3 - Electronic communications market in 2009, in million €

Internet access and broadband services are playing an increasingly significant part in the electronic communications sector. In 2009, this segment had grown by almost 19%. However, the strongest growth was demonstrated by still a relatively small segment of cable TV services that had increased in value by over 25%.

Looking at the electronic communications revenue growth in 2009 by individual segments in each country, calculated in national currencies (see Figure 4) gives yet another view of the markets. Particularly strong growth was demonstrated by cable TV services in Kosovo (nearly 17-fold increase) and Bosnia & Herzegovina (153%) and also internet access services in Bosnia & Herzegovina (125%). At the same time, fixed voice telephony revenues continued to decline at an ever increasing pace in all countries, with exception of Turkey and Albania. In FYROM, Bosnia & Herzegovina and Kosovo the decline in fixed voice telephony segment was close to 20%.

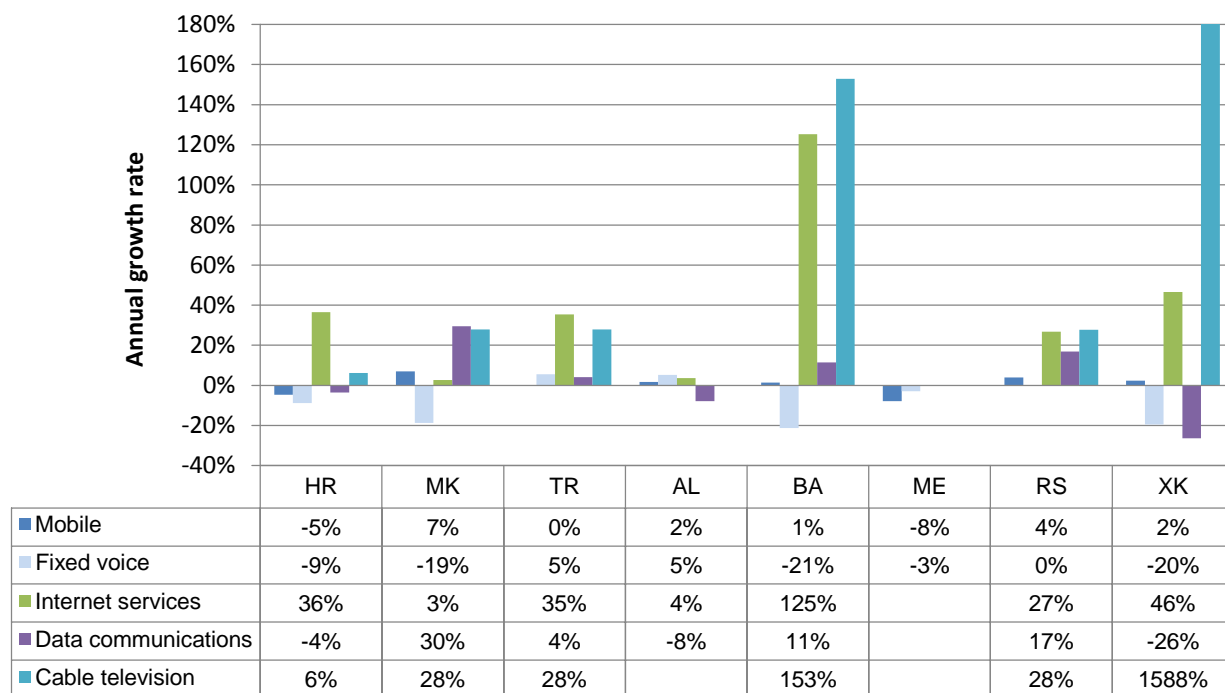


Figure 4 - Sector revenue growth by country in national currencies in 2009

2. Fixed telephony market

The total number of 24.3 million fixed lines is dominated by Turkey with 16 million, followed by Serbia with over 3 million, Croatia with 1.7 million, Bosnia & Herzegovina with almost 1 million, FYROM with 420,000, Albania with 360,000, Montenegro with 178,000, and Kosovo with almost 90,000. In Turkey, FYROM and Bosnia & Herzegovina some decline in the total number of fixed lines was observed.

As of January 1, 2010, the average fixed telephony penetration rate for the eight entities was 24.5%. However, there are considerable variations in the levels of penetration of the fixed network with Albania and Kosovo at relatively low levels, and Croatia and Serbia at levels comparable to the EU-27 average of 40% (see Figure 5). Serbia and Albania have seen a continuing increase in penetration since 2004, while FYROM and Turkey have demonstrated the reverse.

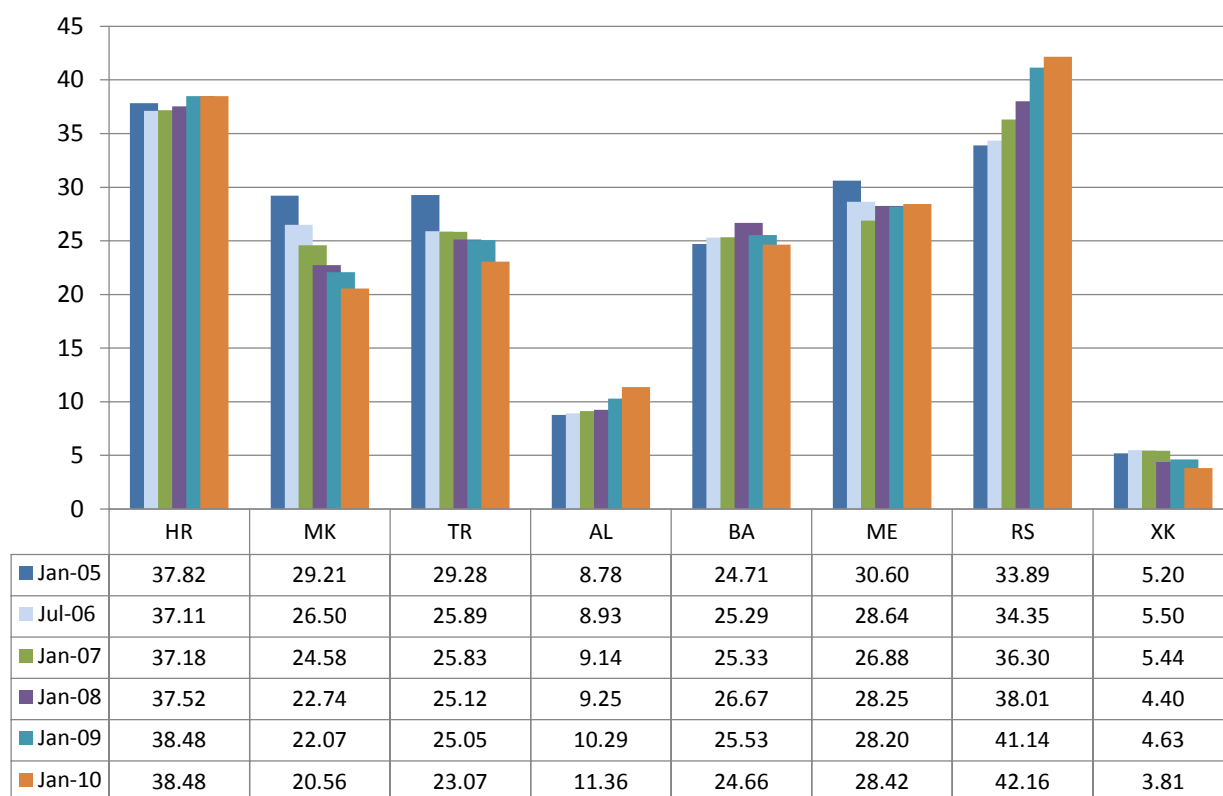


Figure 5 - Fixed lines per 100 population

The process of converting analogue networks to digital has been relatively slow, but by now is completed in almost all countries. Bosnia & Herzegovina and Serbia, with respective 99.6% and 96.95% are the only exceptions and not so far from reaching the target. Albania achieved full digitalisation in 2009.

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 broadband access and to local loop unbundling. Croatia, FYROM, Turkey and Kosovo, have no party lines. Serbia has the highest level of party lines at 4.6% of total fixed lines, followed by Bosnia & Herzegovina at 2.5%, Albania at 1.2% and Montenegro at 1.1%. Fixed voice telephony services continue to be dominated by the incumbent operators (see Figure 6).

Only in Croatia and FYROM, alternative operators have achieved by 1Q 2010 market shares that are close to or above 20%, both by revenue and by minutes of traffic. In Croatia, alternative operators' market share was 20% by revenue and 32% by minutes of traffic. In FYROM, during 2009 – 2010 there was a significant reduction in both traffic- and revenue-based market shares of the incumbent operator: its traffic-based market share fell by 18% and revenue-based market share by 10%. This is largely explained by the strong presence of alternative infrastructures, such as cable networks, and successful implementation of wholesale line rental (WLR). A reverse trend was observed in Turkey, where the incumbent operator's revenue-based market share had increased by 16%.

In most countries, with the exception of Croatia and FYROM, the incumbent operators retain higher traffic-based market shares than revenue-based.

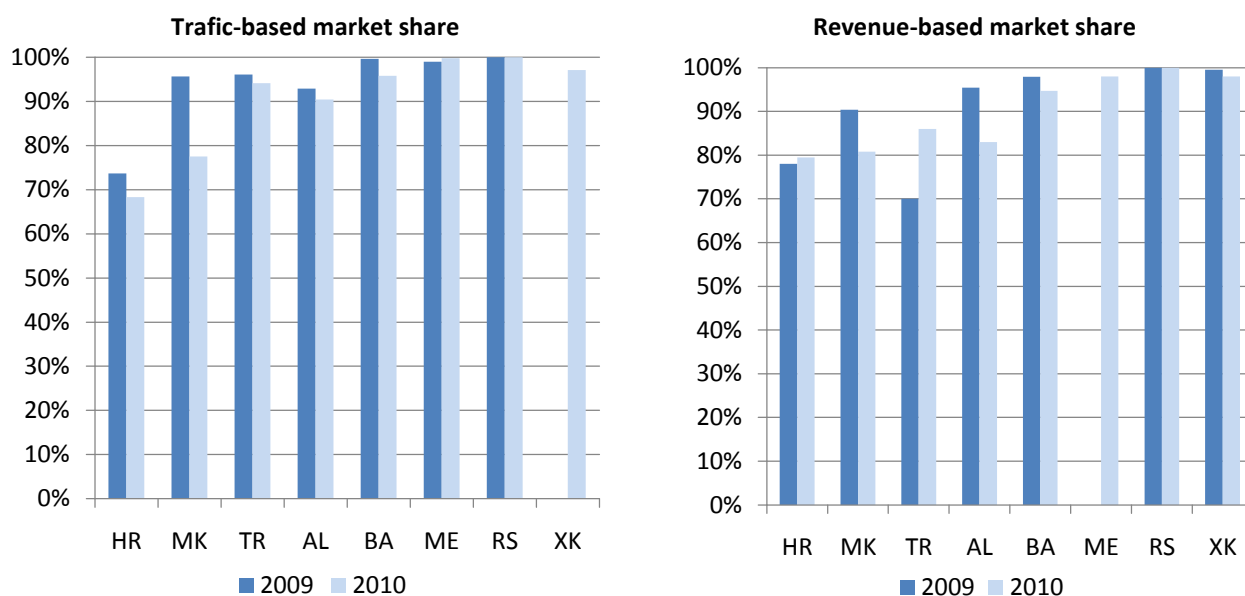


Figure 6 - Incumbent operators' market share in fixed telephony, 2009-2010

In terms of the total number of subscribers using alternative operators by means of direct access, carrier selection and pre-selection and wholesale line rental (only available in FYROM), there has been a particularly strong growth in Croatia, reaching 30% of total fixed lines, and in FYROM, with 19%. In Turkey, there seems to be a steady reduction in the number of subscribers using alternative fixed voice telephony providers: going down from 13% of total fixed lines in 2008 to 4% in 2010.

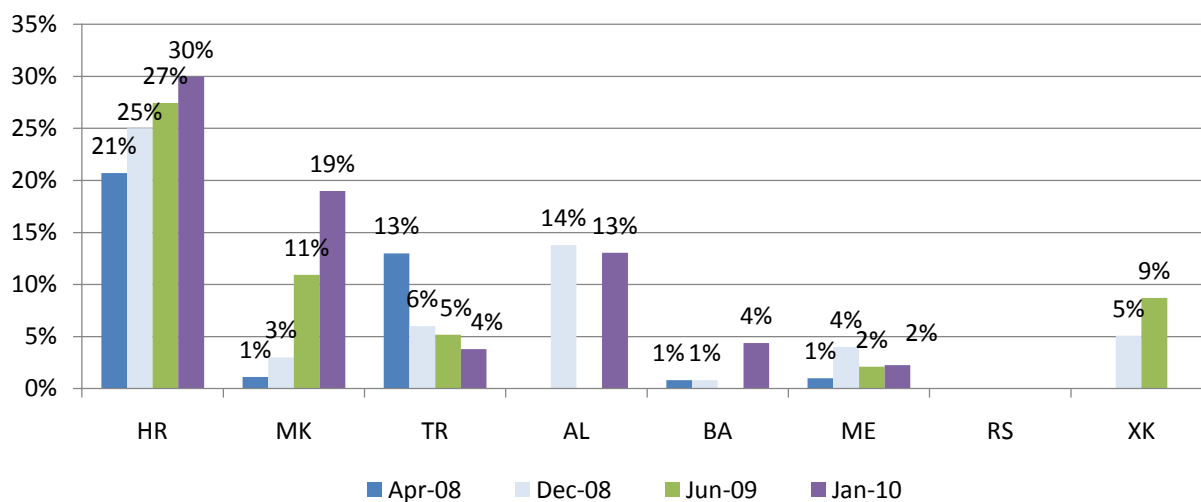


Figure 7 - Subscribers using alternative providers as percentage of total number of fixed lines

3. Mobile market

In January 2010, there were 89 million subscribers of mobile services. This is below the 90 million reported at the end of 2009 and is mainly due to the fact that most countries have now revised their definitions of “active subscribers” using a more consistent subscriber activity period of three months for prepaid subscribers. As a result, some of the figures have been adjusted downwards. This brings the average mobile telephony penetration rate for the eight monitored countries to 94.7%.

Mobile penetration in Croatia, Montenegro and Serbia now exceeds the EU-27 average level.

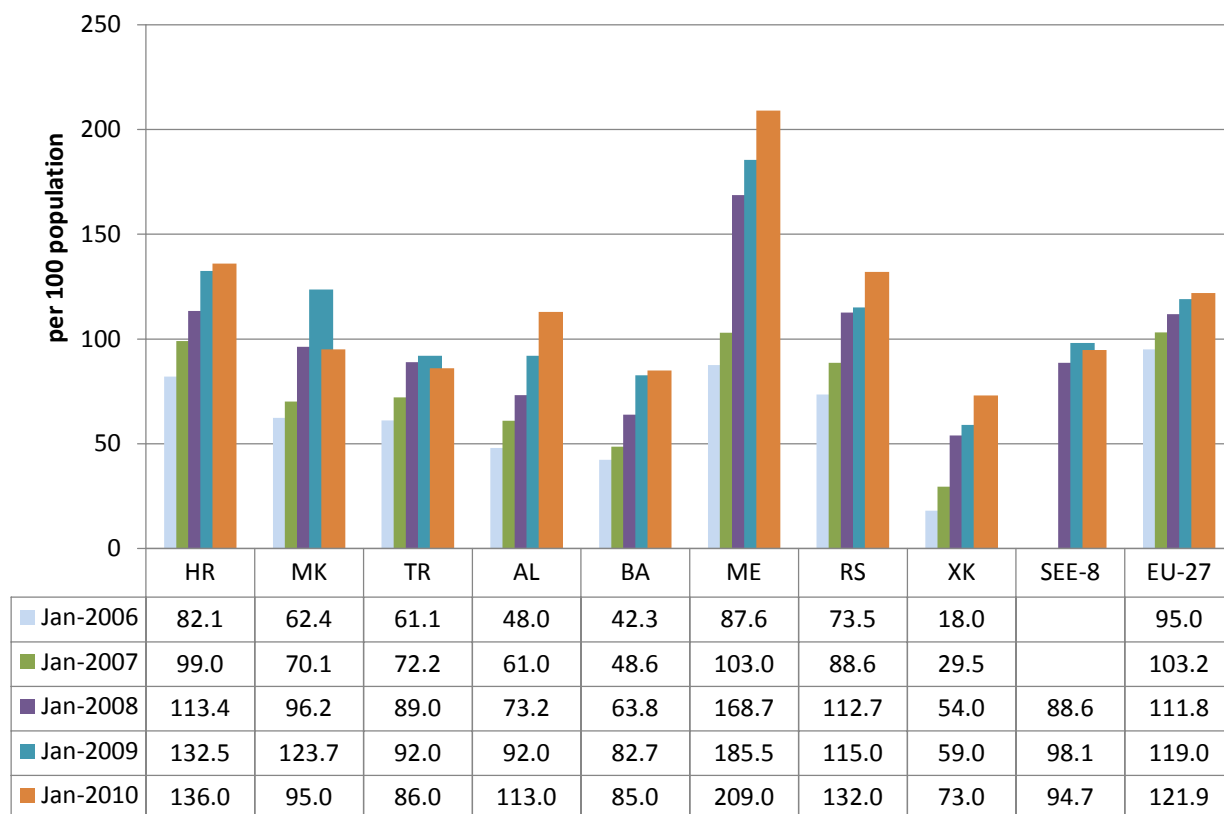


Figure 8 - Growth in mobile penetration, 2006-2010

Competition has been effectively implemented in the mobile sector. With the exception of Kosovo, there are now three active network operators licensed to serve each market. In April 2009, Albania granted the fourth GSM licence to a group led by Post and Telecommunications of Kosovo (PTK), becoming the first country in the region with four mobile operators. In Kosovo, however, in addition to the two mobile network operators, there are two active MVNOs.

The majority of the mobile customers use pre-paid services. However, there has been a considerable increase in the numbers of postpaid subscribers during 2009-2010. The highest share of postpaid subscribers is observed in FYROM (34.5%), Croatia and Turkey (both 28%), and Serbia (26%). In Kosovo and Albania, nearly all mobile users remain prepaid.

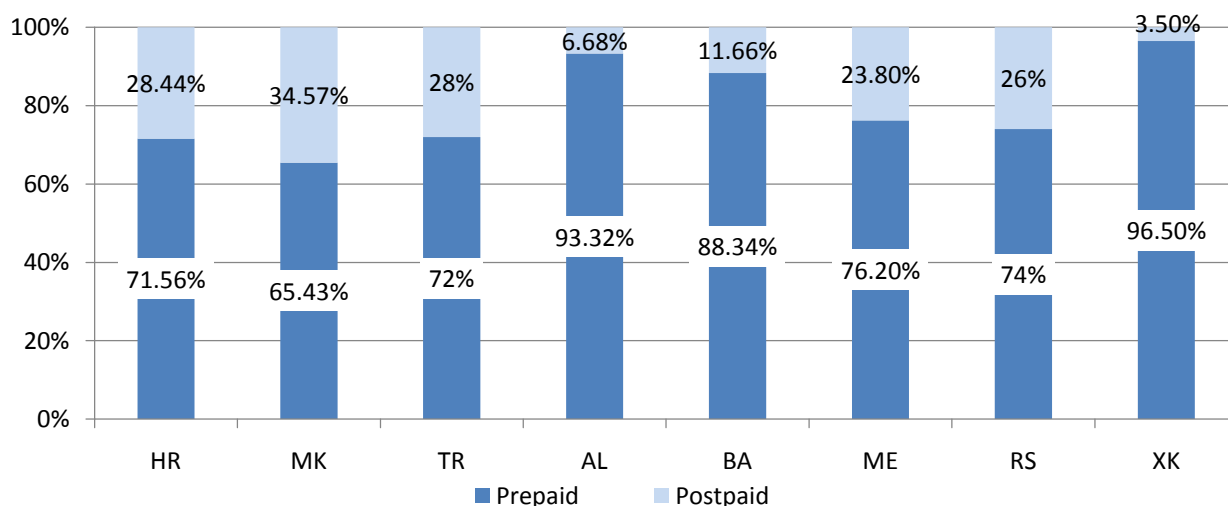


Figure 9 - Mobile subscribers – prepaid and postpaid

Although 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 where two established players typically control over 80-90% of the market. Only Bosnia & Herzegovina and Montenegro come close to a more even distribution of market shares.

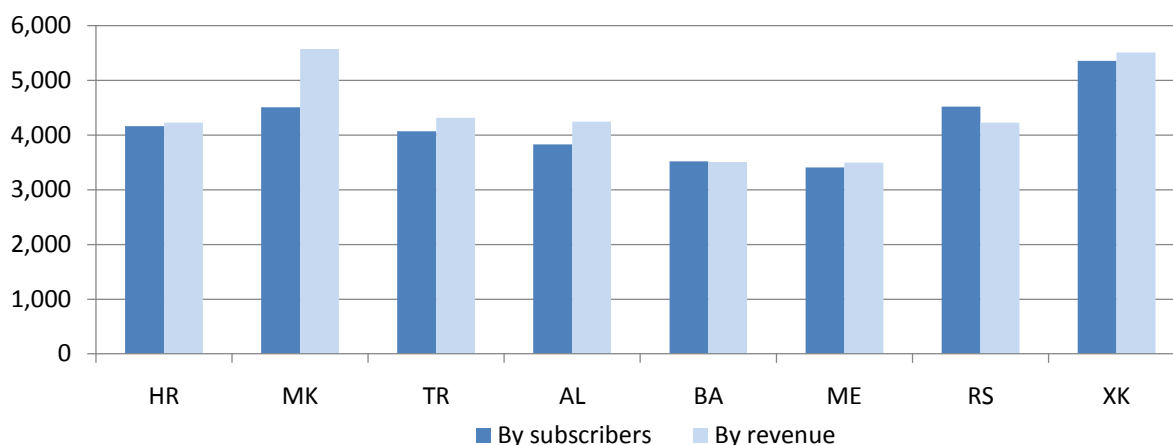


Figure 10 - Mobile market concentration levels, HHI

4. Internet and broadband

a) Fixed broadband access

Dial-up is still predominant in Croatia and Montenegro. Bosnia & Herzegovina and Serbia have a majority of broadband, but also retain significant numbers of dial-up lines. At the same time, dial-up has been nearly phased out by broadband in FYROM, Turkey and Albania, while in Kosovo all reported internet connections are broadband.

The division between broadband and narrowband connections is shown in Figure 11. In line with the EC practice, broadband capacity is defined as equal to, or higher than, 144 kbps.

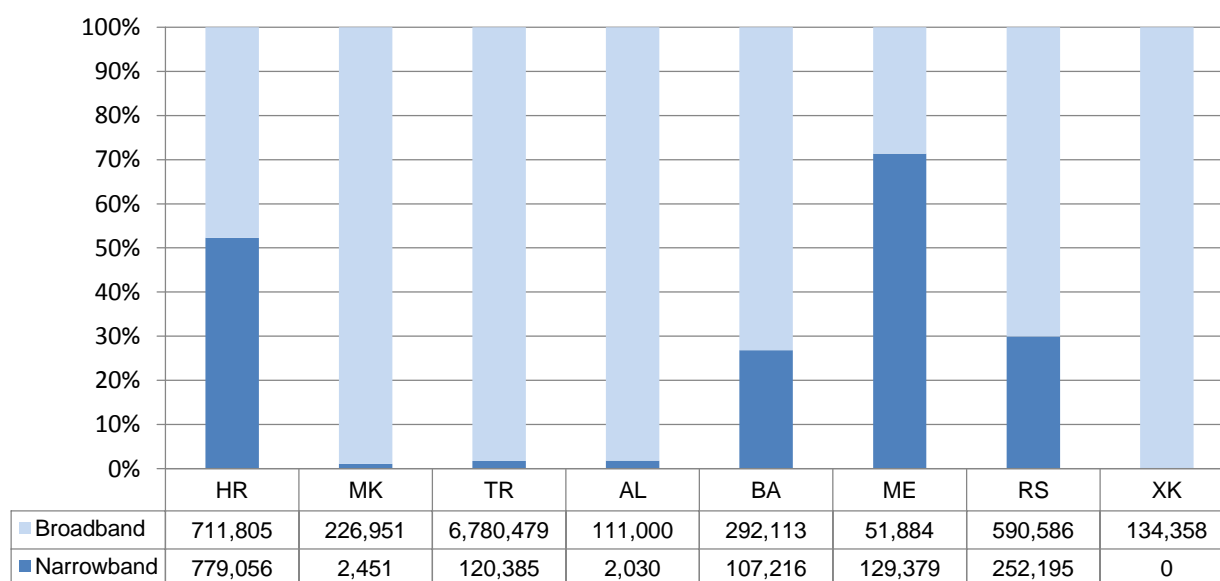


Figure 11 - Number of fixed internet connections – broadband and narrowband

The number of ISPs active on the market may appear impressive in most of the countries. However, the majority of the retail market is controlled by the incumbent operators, with the exception of Serbia and Kosovo where the incumbents' retail market shares are below 30%.

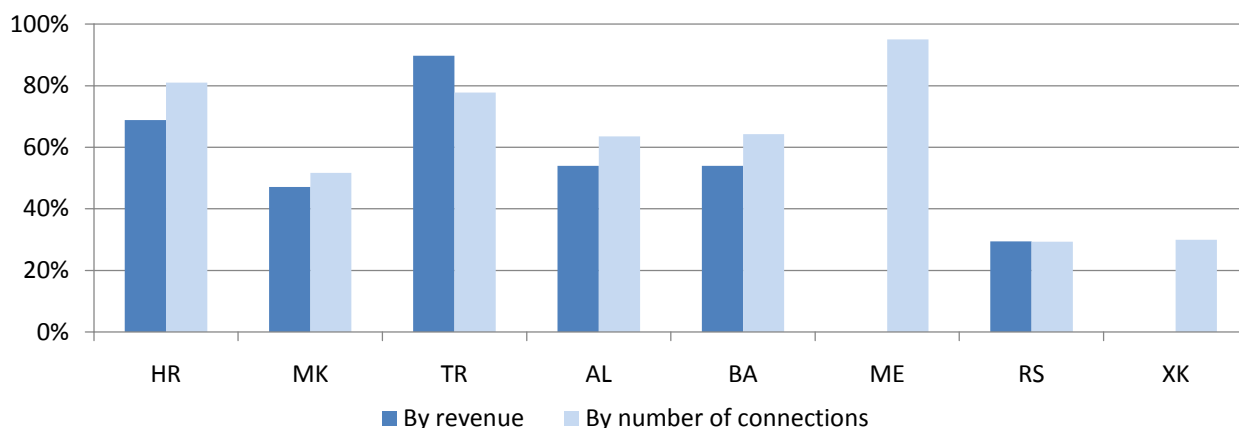


Figure 12 - Incumbent ISP's retail market share

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 2010 was 24.8%. The average broadband penetration rate for the eight countries was 9.4%. The highest broadband penetration level was observed in Croatia (16.1%), above the level of Romania and Bulgaria that joined the EU in 2007.

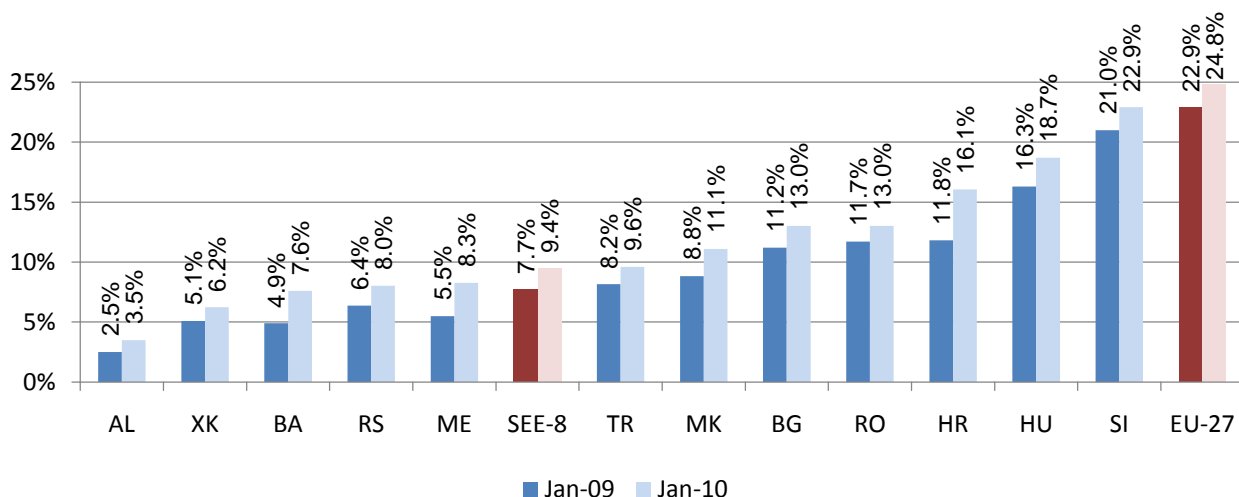


Figure 13 - Broadband penetration rate, 2009-2010

Broadband markets are dominated by fixed incumbent operators in the countries where xDSL is the main access technology: Croatia, Turkey and Montenegro. In FYROM, Albania, Bosnia & Herzegovina, the market shares of the incumbent operators are close to 50%, where competitors are using alternative infrastructures – primarily, cable and fixed wireless access networks. In Kosovo and in Serbia, the market shares of the incumbent operators are below 50%. At the same time, in Serbia a significant number of alternative operators rely on the wholesale offer from the incumbent.

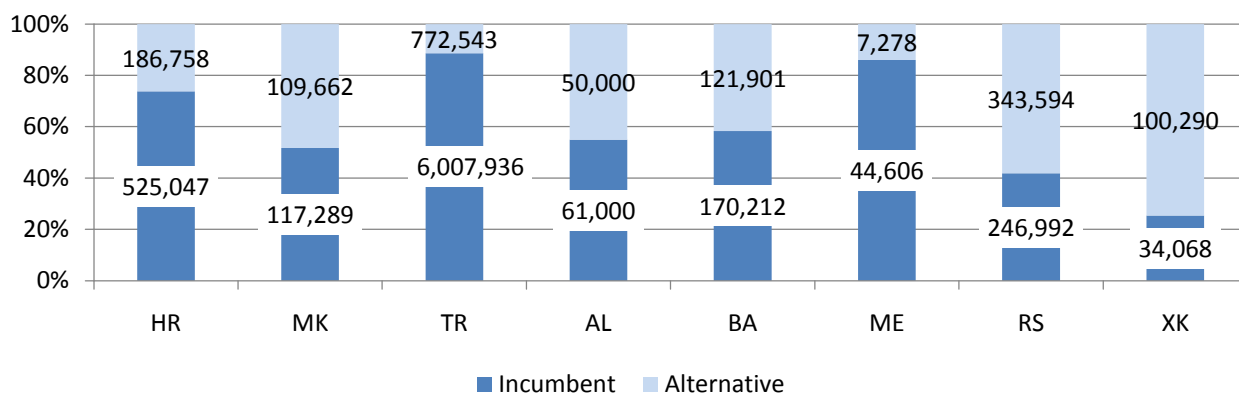


Figure 14 - Fixed retail broadband connections by incumbent and alternative operators

In terms of fixed broadband technologies, xDSL dominates most of the markets. At the same time, particularly strong cable presence is observed in FYROM, Bosnia & Herzegovina, Serbia and Kosovo. FWA networks are significant in Bosnia & Herzegovina, Montenegro and Serbia. FWA networks in Bosnia & Herzegovina, which are deployed in unlicensed 2.4 GHz and 5 GHz spectrum bands, grew by 52% in 2009 – 2010.

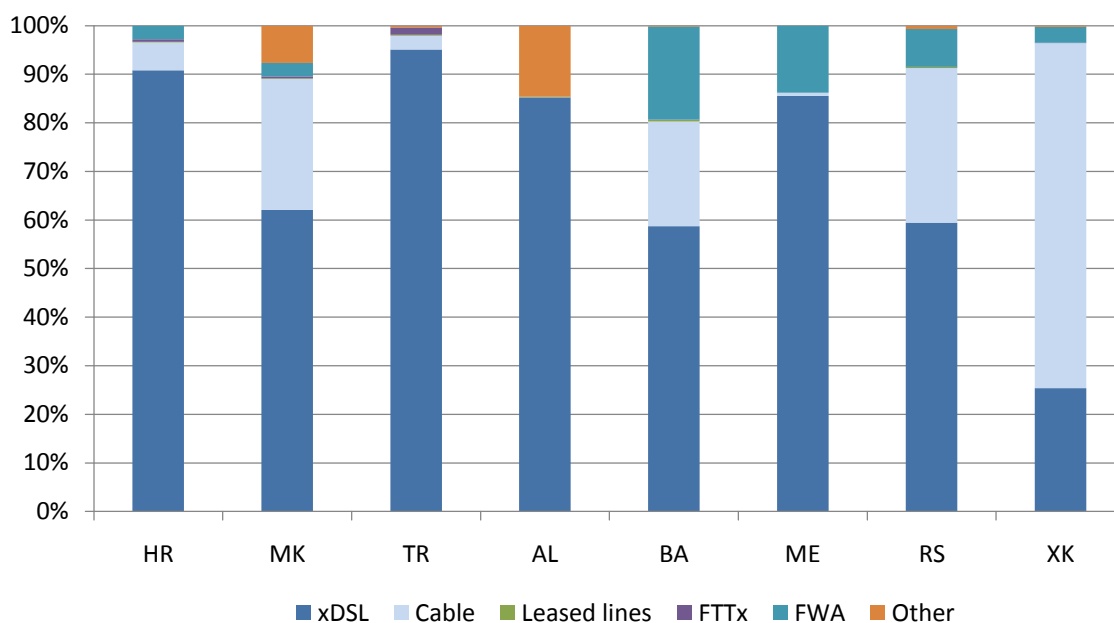


Figure 15 - Fixed retail broadband connections by technology

In most countries, the position of the incumbent operator in the retail xDSL broadband is extremely strong, with alternative operators having less than 20% of the market. The position in Serbia is more equitable, with the incumbent having 67% of the retail market, but even then it supplies 100% of the bitstream access connections to alternative operators in the wholesale market. An exception is Albania, with alternative operators controlling 37% of the retail xDSL broadband connections supplied over their own infrastructures.

Alternative xDSL-based broadband offers are available in all countries, except for Montenegro and Kosovo. In Albania and Bosnia & Herzegovina alternative xDSL operators provide broadband services based on own infrastructures, while in other countries they rely on different forms of wholesale access offered by the incumbent operators. In Croatia, competitors are mainly using full LLU, in Turkey and Serbia wholesale bitstream access. In FYROM, the services offered by competitors are mainly based on resale, although there are also emerging offers based on full LLU access.

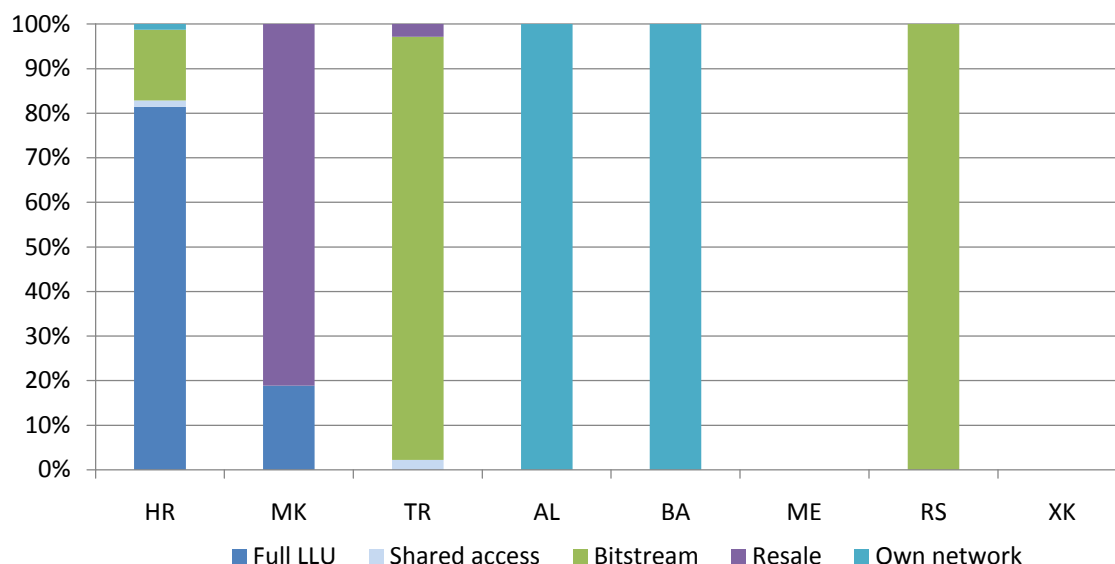


Figure 16 - Alternative operators' xDSL lines by type of access

b) Mobile broadband access

In almost all countries, with the exception of Kosovo, mobile operators have been licensed to offer 3G/UMTS services in the 2.1 GHz band and there are now mobile broadband offers available commercially. In Albania, a single 3G licence was issued to Vodafone on December 2, 2010 and the operator announced plans to launch 3G services already in December 2010.

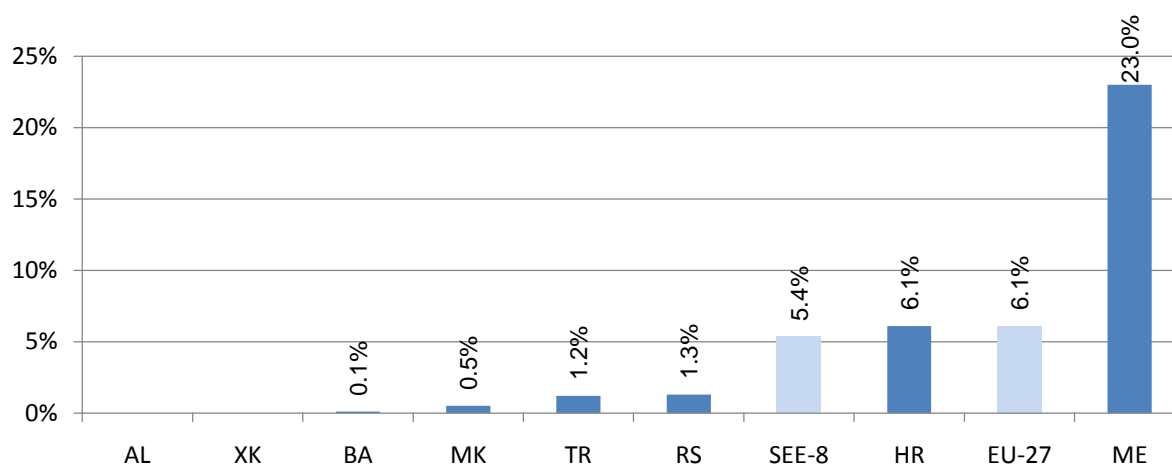


Figure 17- Mobile broadband penetration - dedicated data service cards/modems/keys only, July 2010

The penetration of mobile broadband as measured by dedicated data service cards was 5.4% in July 2010. Montenegro stands out with 23%. This high figure could be explained by a large number of prepaid cards issued during summer holiday season and by the fact that prepaid users are counted as active during a 12-months period. Therefore the data for Montenegro are difficult to compare with other countries. In the remaining five countries where commercial mobile broadband services are available, the highest mobile broadband penetration at 6.1% was observed in Croatia – same as the EU-27 average reported for the same period.⁶⁰

⁶⁰ Communications Committee Working Document: Broadband access in the EU: situation at July 1, 2010, [COCOM10-29](#)

5. Control of major operators by foreign investors

The German incumbent telecommunications operator, Deutsche Telekom is one of the major investors in the region. In Croatia, it directly controls 51% of T-Hrvatski Telekom that also owns 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-Hrvatski Telekom, 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 Srbija, the Serbian incumbent operator, and 97% of AMC, a major Albanian mobile network operator. After Deutsche Telekom had increased its stake in OTE to 25% plus one vote in 2008, all subsidiaries of OTE are indirectly controlled by Deutsche Telekom. Following this transaction, OTE was required by the Macedonian Commission for Protection of Competition to divest its Macedonian subsidiary, Cosmofon. In April 2009, Cosmofon was acquired by Telekom Slovenije, the Slovenian incumbent operator.

In addition to Cosmofon, Telekom Slovenije controls 83% of the largest alternative fixed network operator in FYROM, On.Net. From November 11, 2009 On.Net and Cosmofon operate under the new brand 'One' and in November 2010 Telekom Slovenije reached an agreement with minority shareholders to increase its stake to 100%. Telekom Slovenije also controls 93.11% of the major alternative provider of fixed and mobile services in Kosovo, IPKO and has invested in internet service providers in Albania, and Bosnia & Herzegovina.

The Austrian incumbent telecommunications operator, Telekom Austria controls 100% of three mobile operators: VIPNet in Croatia, VIP mobile in Serbia and VIP operator in FYROM.

Vodafone group has a 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.

In October 2010, the Serbian government announced a tender procedure for a further 51% stake in Telekom Srbija, inviting expressions of interest until November 26, 2010.

Also in October 2010, Kosovo parliament adopted a strategy for privatisation of up to 75% of the Post and Telecommunication of Kosovo (PTK). The timing for the launch of the process, however, is not known at this stage.

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. Independence from industry is generally less contentious and more straightforward to assess than 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. The decrease of the state shareholding, however, usually strengthens the independence of the NRA.

All monitored countries, except for Montenegro and Croatia, have a state shareholding in telecommunications operators, ranging from 24% up to 100%. 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 or the ministry responsible for telecommunications.

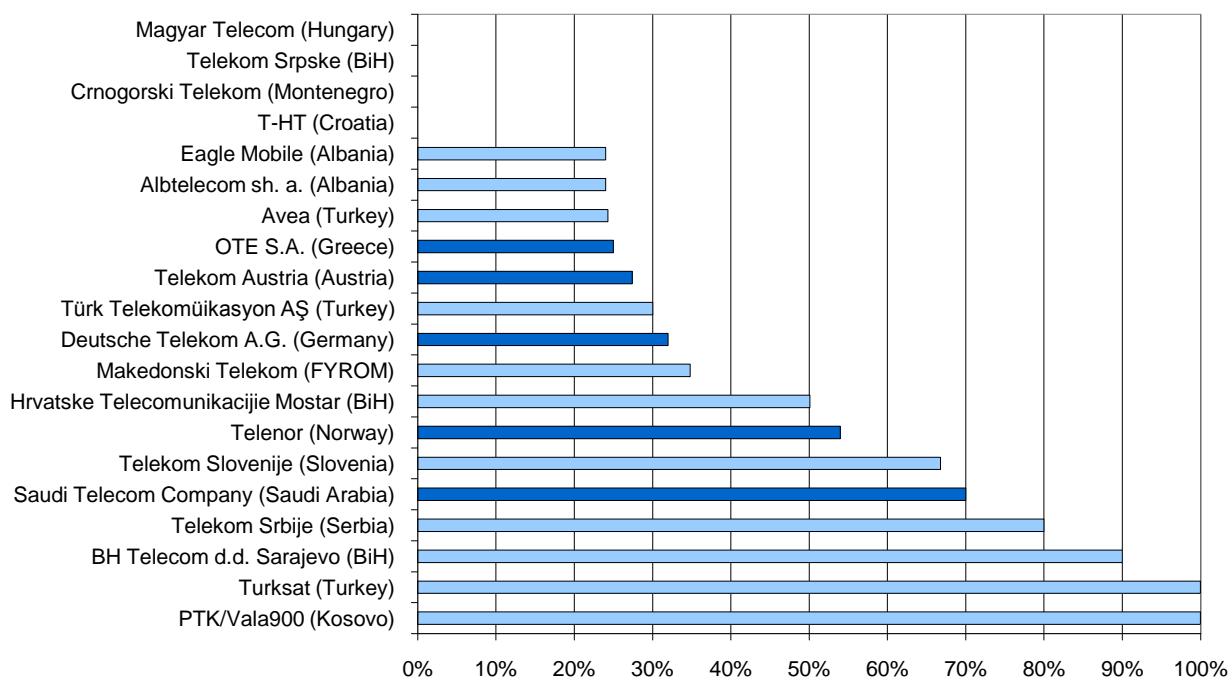


Figure 18 - State ownership of telecommunications operators

In many 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 was initiated over ten years 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. The amended EU 2009 regulatory framework reinforces national telecoms regulators' independence by eliminating political interference in their day-to-day duties and by adding protection against arbitrary dismissal for the heads of national regulators.

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. The key functions of the government and the regulator were redefined in the laws adopted in 2008 in four countries: Croatia, Turkey, Albania and Montenegro and the new Law on Electronic Communications adopted in Serbia in June 2010. The common objective was to make a more clear division between the legislative and policy-making tasks carried out by the government (or the relevant ministry) and the regulatory tasks performed by the NRA. In June 2010, the Macedonian Law on Electronic Communications was also amended to clarify the role of the NRA and the scope of its responsibilities.

The situation varies substantially from country to country. The institutional frameworks in FYROM, Turkey, Albania, Bosnia & Herzegovina, Montenegro and Serbia foresee involvement of the government or the specific ministry in spectrum management and implementation of universal service. Furthermore, in Montenegro, the Law on Electronic Communications gives the ministry the powers of administrative review of the NRA decisions as the first appeal instance, effectively undermining the NRA independence.

Relative effective independence of the NRA has been achieved in Croatia, where the ministry is no longer involved in adoption of regulatory decisions and is restricted from influencing the NRA decisions in individual cases. In Kosovo, the Law on Telecommunications was amended in 2008 to remove the provisions enabling the ministry to issue instructions to the NRA to amend a licence.

To conclude, the situation is far from being completely satisfactory but there has been a general positive trend with the adoption of a series of new laws aimed at increasing 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. The EU 2009 regulatory framework introduced an explicit requirement for clear and defined in advance provisions on the dismissal of the management of the NRAs and transparent procedures where the reasons for the dismissal are clearly stated.

This report monitors (i) the eligibility criteria, (ii) the procedures of appointment and the government bodies involved, (iii) term in office and (iv) the procedures for removal.

The situation varies across countries with different eligibility criteria reflecting a more or less detailed approach and 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 parliament only (FYROM), (ii) appointment by parliament following a government proposal (Albania, Croatia, Bosnia & Herzegovina, Serbia, Kosovo), (iii) by the government only (Montenegro). Consequently, 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 country.

The appointment of the executive director in charge of the NRA's day-to-day operations is usually done by the NRA board members with four 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.

However, even in the presence of clear and transparent rules for appointment of the NRA management, in some countries there have been undue delays in the appointment procedures. As a result, the management functions often are carried out without a formal mandate which undermines overall regulatory certainty for the sector. Particularly striking example is Bosnia & Herzegovina, where the office term of the executive director expired in 2007 and the mandate of the NRA council members ended in early 2009, while no new appointment has taken place so far. A similar situation is observed in Serbia, where the board members of the NRA remain to be appointed.

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 EU 2009 regulatory framework establishes a requirement that NRAs must have their own separate annual budgets and adequate financial and human resources.

The funds available for most NRAs are ranging from below €2 million in Kosovo and Albania to around €16 million in Croatia and Serbia. Turkey stands out with the highest budget – almost €28 million in 2010.

The sources of the NRA funding tend to become more diversified. Spectrum usage fees are the main source of financing of the NRAs in Albania (98%), Turkey (86%) and FYROM (73%). Annual revenue-based and numbering usage fees are the main funding source for the NRA in Bosnia & Herzegovina, while the funding sources for the NRAs in Croatia, Montenegro and Serbia are distributed between annual revenue-based and spectrum usage fees. The NRA in Kosovo, which previously relied almost exclusively on one-off authorisation fees, is now by 66% funded from revenue-based fees. In practice, the NRA in Kosovo, however, does not have an independent budget and is subject to the same financial constraints and procedural rules as any other administrative institution funded from the state budget.

4. NRA staffing

The average number of the NRA staff in 2010 has been between 60 and 169, with two exceptions: Kosovo, with a team of 33 and Turkey with a team of 654.

The distribution of the number of staff committed to the handling of electronic communications regulatory tasks and the handling of frequency monitoring tasks varies across countries. The lowest numbers of regulatory experts were reported by Kosovo (12) and Montenegro (20) that raise concerns about the lack of competent resources.

NRAs in most countries have to comply with certain restrictions when deciding on the salary level of their employees. Typically they either have to comply with the approved salary scheme for civil servants or are subject to the government approval. The NRA in Serbia has been able to decide on its salary levels independently, but in 2009 it had to comply with a temporary six-months salary limits imposed on all employees in the public sector.

Comparing the ratio of the NRA budget to the number of its staff presents yet another picture of the NRA resources. The Serbian NRA tops the list with €163 thousand budget per employee per year, while the NRA in Albania finds itself on the opposite end of the scale with €28 thousand per year per employee.

Country	NRA staff	Of which:		Salary restrictions?	Budget/staff (€, thousand)
		regulatory	frequency		
Croatia	169	54	18	Government approval	95.3
FYROM	113	28	20	No legal restrictions	78.7
Turkey	654	340	20	Yes	42.6
Albania	60	32	8	Yes	28.3
Bosnia & Herzegovina	113	32	26	Civil servant	38.4
Montenegro	61	20	15	Yes	84.9
Serbia	100	28	25	No legal restrictions	163.6
Kosovo (under UNSCR 1244)	33	12	2	Civil servant	46.8

Table 5 - Overview of NRA resources

5. NRA enforcement powers

In order to ensure effective compliance with SMP obligations, the NRAs' sanctioning powers 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 of Croatia, FYROM and Serbia where the NRAs are required to initiate a misdemeanour procedure before the relevant court.

When the amount is calculated as a percentage, the level of fines varies from 1% up to 10% of the total annual revenues with no maximum limit. Some countries impose a maximum fine: Montenegro (approximately €16,500), Bosnia & Herzegovina (€75,000 for the first violation and €150,000 for the repeated 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. However, only in Croatia, Turkey and Serbia, this enforcement power has been applied in practice. 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 two to four months. Some countries specify a minimum unsuccessful negotiation period from 45 days up to 90 days before the dispute is passed to the NRA. Two countries impose a short deadline: in Bosnia & Herzegovina, the NRA has to issue a binding decision within six weeks (in exceptional cases, ten weeks) from receiving the request, in Kosovo, the NRA issues a binding decision within six weeks.

Croatia, FYROM, Albania, Montenegro and Serbia have included a specific provision in the law that obliges the NRAs to publish their decisions on disputes.

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, Croatia, FYROM, Turkey, Albania, Montenegro and Serbia request the NRA to publish it on its website. The law in Montenegro requires 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 priorities and the long-term guidelines adopted by parliament following a government proposal. In Albania, 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 Parliament alone or jointly with the government. Bosnia & Herzegovina is an exception where the NRA only reports to the government on the tasks performed.

8. Appeal procedures

In order to counterbalance the independence of the NRA, it is critical to ensure effective mechanisms enabling any party affected by an NRA decision to appeal it to an independent and competent body.

All the countries have appeal procedures in place. However, being closely linked to the national judicial system, the appeal mechanisms are different. The appeal body is typically a court acting as first instance or as second instance after an appeal in first instance has been handled by the NRA managing board. The exception is Montenegro, where the NRA decisions are not final in the administrative procedure and the first appeal instance is the ministry responsible for telecom policies.

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. In Albania and Kosovo, the NRA decision is automatically suspended for 30 days while an administrative appeal is first considered by the NRA managing board (there is, however, no automatic suspension when the appealed decision is submitted to the court as the next instance). In other countries, there is no automatic suspension of the appealed decision, unless the appeal body or the NRA decides to grant a suspension upon the complainant's request.

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 where the court is limited to the correct application of the law. All countries allow a third party to appeal a decision if it has a legal interest in the case.

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 five years. The lack of reliable 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 three months in Montenegro and a minimum of 14 days in Bosnia & Herzegovina.

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 their reasoned opinion.

In all countries there is an obligation for the NRAs to publish their decisions on the website.

10. 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.

Bosnia & Herzegovina is the only country in the region that has established RAK as a converged regulator, responsible for broadcasting and telecommunications. In late 2008, the government discussed the possibility to split RAK into two authorities. The legislative process, however, was stopped following criticism by the European Commission.

In other countries, except for Turkey and Albania, even if there is a specific broadcasting authority responsible for content, it is the NRA that assigns frequencies for both electronic communications operators and for broadcasters. In most countries, there is a cooperation agreement between the NRA and the broadcasting authority. The exceptions are Croatia, Albania and Kosovo where the practical aspects of this coordination have not been defined yet.

11. Cooperation between the NRA and the national competition authority

Only in Croatia and FYROM, the NRA and the NCA have established a formal cooperation. In FYROM, however, concerns have been expressed over the lack of coordination between *ex ante* measures imposed by the NRA and *ex post* regulation of the same wholesale products by the NCA.

In Albania, a memorandum of understanding was signed between the NRA and the competition authority under the previous Telecommunications Law, but now has to be revised in accordance with the provisions of the Electronic Communications Law adopted in 2008.

In the other countries, such cooperation has not yet been established.

C. Market access conditions in electronic communications

1. Liberalisation of public fixed voice telephony networks and services

At least in theory, all the monitored entities 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, until April 2007 the high Montenegrin licensing fees, especially for international services, presented a barrier to entry.

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, while local fixed telephony networks and services were opened to competition only in May 2009 with the entry into force of the general authorisation regime under the new Electronic Communications Law.

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. The provision of urban local networks and services as well as international remained *de facto* closed to competition until the Law on Electronic Communications was adopted in 2008. The new law introduced a general authorisation regime for all types of electronic communications services allowing regional operators to extend the provision of their services on the entire national territory and to offer international interconnection. Furthermore, cable network operators in Albania are still restricted from offering voice or internet access services.

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

In Serbia, 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 open to competition. Telekom Srbija remained the only licensed public fixed telephony network operator

until February 2010, when a second licence for provision of public fixed telecommunications networks and services was issued to Telenor following a public tender procedure. It was also agreed not to allow similar new licences until the end of 2011, thereby keeping competition in the sector limited despite the adoption of the new primary law which envisages full liberalisation. Telekom Srbija also maintained a *de facto* monopoly over international interconnection until first licences for international network interconnection were issued to alternative operators in December 2008. Serbia still has a major tariff rebalancing problem, which makes the implementation of full liberalisation problematic.

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.

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.

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.

3. Authorisation regime for electronic communications services

The EU 2003 regulatory framework has established 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, five of the monitored countries have implemented 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. Albania, Croatia and Montenegro have moved to a general authorisation regime in 2008 following the adoption of new laws based on the EU 2003 regulatory framework.

In Turkey, under the new Electronic Communications Law adopted in November 2008 general authorisation regime was introduced from May 10, 2009.

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 €28,000 for public fixed telephony services, with even higher fees paid by the incumbent operators).

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.

The new Serbian Electronic Communications Law adopted in June 2010 foresees full liberalisation and introduction of general authorisation regime for all types of electronic communications services. The general authorisation regime for public fixed voice telephony services over public fixed networks, however, is only foreseen from January 2012. For other services, general authorisation regime will be introduced as soon as the implementing legislation has been adopted.

The annual fee paid by authorised undertakings in most countries varies from 0.1% to 0.5% of gross annual turnover. Montenegro has the highest fee at 1% of revenue.

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 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 in 2008 that in Croatia application procedures for building permits for mobile infrastructure could take up to 359 days and application procedures for location permits up to 559 days. In Serbia, the same procedures very often could 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. In Serbia, a law on spatial planning and construction was adopted on August 31, 2009. The law addresses the issue of rights of way for telecommunications infrastructure and simplifies the application procedures establishing a time limit of 60 days for granting rights of way by public institutions, on transparent and non-discriminatory terms. The Albanian law on urban planning sets out the deadline for approval or refusal of construction permit within 45 days from receiving the request, but according to some operators, the timing to obtain digging permits in practice may exceed 12 months.

D. Radio spectrum

1. 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 was introduced by the law adopted in 2008: 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 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 assignment for telecommunications, while frequency assignment for broadcasting is carried out by the broadcasting authority.

2. Spectrum licences issued to mobile operators

In most of the monitored countries, there are three mobile operators that have been issued spectrum licences in the 900 MHz and the 1800 MHz bands. The exceptions are Albania with four licensed mobile operators and Kosovo with two operators. All countries, except Kosovo, have issued 3G/UMTS spectrum licences in the 2100 MHz band. In Albania, a single 3G licence was issued to Vodafone on December 2, 2010.

The distribution of spectrum assignments demonstrates some asymmetries, typically between established operators and new entrants. In Croatia, the new entrant Tele2 was granted a smaller spectrum assignment in the 900 MHz band than T-Mobile and VIPnet. At the same time, VIPnet does not have any spectrum assignment in the 1800 MHz band.

In FYROM, One does not have any spectrum in the 1800 MHz band, while the late entrant VIP operator did not acquire any spectrum in the 2100 MHz band.

In Turkey, the smallest operator has a much smaller spectrum assignment in the 900 MHz band, but also holds the single licence in the 1800 MHz band.

Also in Serbia, the late entrant VIP mobile has less spectrum in the 900 MHz band, but more in the 1800 MHz as compared to the two other established operators.

Finally, in Kosovo, Vala has been assigned spectrum only in the 900 MHz band, while IPKO has both the 900 MHz and 1800 MHz spectrum assignments.

Country	900 MHz	1800 MHz	2100 MHz	2600 MHz
Croatia	3	2	3	-
FYROM	3	2	2	-
Turkey	3	1	3	-
Albania	4	4	1	-
Bosnia & Herzegovina	3	3	3	-
Montenegro	3	3	3	-
Serbia	3	3	3	-
Kosovo (under UNSCR 1244)	2	1	-	-

Table 6 - Overview of spectrum licences issued for mobile services

In practice, these asymmetries mean that new entrant mobile operators with spectrum assignments in the higher 1800 MHz band are often facing higher network deployment cost.

3. Broadband wireless access

Spectrum licences for broadband wireless access (BWA) in the 3.4–3.6 GHz band were issued in Croatia and FYROM and in the 3.4–3.8 GHz band in Montenegro.

In Croatia, as of November 2010, there are 30 valid licenses covering 20 Croatian counties and the district of Zagreb. Some of the initially issued 56 licences were returned to the regulator.

In FYROM, initially 20 frequency authorisations for BWA spectrum were issued: two national and 18 regional (three authorisations per each of six regions). Most of these licences have been revoked: either because of the failure to meet coverage obligations or on request of the licensees themselves. Currently, there are six valid regional authorisations covering the whole national territory issued to one licensee (Neotel).

In Montenegro, there are four valid national licences in the 3.4–3.6 GHz band and one national licence in the 3.6–3.8 GHz band.

In Serbia, in May 2009 two fixed wireless access licences were issued in the 410 – 430 MHz band to Telekom Srbija and Orion Telecom (Media Works) following a tender procedure.

In the remaining four countries no licences for provision of broadband wireless access services have been issued so far. In Bosnia & Herzegovina, however, alternative operators have been offering broadband services using unlicensed WiFi spectrum in the 2.4 GHz and the 5 GHz bands.

4. Refarming of GSM spectrum – 3G/4G services in 900 MHz and 1800 MHz bands

In October 2009, the Council Directive 87/372/EEC ('GSM Directive') was amended removing the restriction that reserved the 900 MHz spectrum exclusively for GSM services. At the same time, the Commission published a complementary decision setting out the technical parameters that enable the co-existence of GSM and UMTS systems in the 900 MHz and 1800 MHz bands. New technologies, such as LTE, will be allowed by the Commission via separate technical implementing measures as soon as these technologies have been proven compatible with GSM and UMTS.

Only two of the monitored countries, Croatia and FYROM, have so far allowed UMTS services in the 900 MHz and 1800 MHz bands. In Croatia, the regulator renewed the spectrum licences of the three mobile operators – VIPnet, T-Mobile and Tele2 – extending them until 2024 on technology neutral basis. The Croatian mobile operators are now able to deploy UMTS services in the 900 MHz and 1800 MHz bands. In FYROM, the National frequency plan was amended in December 2009.

The Bosnian regulator also announced plans to adopt shortly a decision allowing UMTS services in the GSM bands.

5. Digital dividend – 800 MHz band for mobile broadband

The 800 MHz (790-862 MHz) band is the upper part of the spectrum that will be freed up with the switchover from analogue to digital terrestrial television broadcasting. The European Commission wants all EU member states to have completed their analogue terrestrial broadcasting switch-off by January 1, 2012 (although this is not a binding deadline).

In September 2010, the European Commission presented a package of measures intended to facilitate investment in fast and ultra-fast broadband networks, including a legislative proposal for the EU's first five-year Radio Spectrum Policy Programme (RSPP). The main objective is to make more spectrum available for wireless broadband services. As part of the RSPP, the Commission has proposed that all member states should open up the 800 MHz band for wireless broadband services by January 2013, with derogations until 2015 in exceptional cases. If adopted, the RSPP targets would be binding on member states.

Only Croatia and Bosnia & Herzegovina would have completed their analogue terrestrial broadcasting switch-off by January 1, 2012. Croatia already completed the switch-off process on October 31, 2010. No formal decision on digital switchover has been adopted in Albania. At the same time, Albania is reported to operate already now well developed DVB-T and DVB-H networks with national coverage.⁶¹ The networks, however, operate outside of the current legal framework for broadcast services adopted by parliament in May 2007.

Country	Digital switchover date	Technical platform for digital TV
Croatia	October 31, 2010	DVB-T
FYROM	June 1, 2013	No decision
Turkey	2014	DVB-T
Albania	No decision	DVB-T2/MPEG-4
Bosnia & Herzegovina	December 1, 2011	DVB-T2/MPEG-4
Montenegro	December 31, 2012	DVB-T
Serbia	April 4, 2012	DVB-T2/MPEG-4
Kosovo (under UNSCR 1244)	2012	DVB-T/DVB-H

Table 7 - Digital switchover plans

E. Regulatory framework for market analyses

Six 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, Montenegro and Turkey introduced the principles of the EU 2003 regulatory framework in their national legislation in 2008 and Serbia in June 2010. The regulatory

⁶¹ <http://www.digitag.org/WebLetters/2008/External-Aug2008.html>

frameworks in Bosnia & Herzegovina and Kosovo 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 specific 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 (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: either it is left to the entire discretion of the NRAs (Bosnia & Herzegovina and Kosovo) or is left to the discretion of the NRAs but with requirement to apply the competition law principles and the Commission recommendation on relevant markets (Croatia, FYROM, Turkey, Albania, Montenegro and Serbia).

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, Turkey and more recently, Albania have relied on the European Commission recommendation on relevant markets of 2003 in defining relevant markets, while the NRAs in Croatia and Montenegro have applied the 2007 version of the recommendation.

NRAs in Bosnia & Herzegovina and Kosovo currently continue to rely on 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. Kosovo has 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. The regulator in Bosnia & Herzegovina has recently announced plans to start in 2011 its first analysis of the relevant markets which is more in line with the current EU regulatory framework.

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 laws adopted in 2008 in Croatia, Albania, Montenegro and Turkey 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. A similar framework is also envisaged by the new Serbian law adopted in June 2010.

The frequency of the market analysis varies considerably between the countries: (i) left to the discretion of the NRA (FYROM, Montenegro and Kosovo), (ii) once every year (Bosnia & Herzegovina), (iv) every two years (Albania) and (v) every three years (Croatia, Turkey and Serbia). In Montenegro, the NRA was required to complete its first market analysis within one year from the entry into force of the law (i.e. by August 27, 2009) which did not take place in practice. In FYROM, the requirement for the NRA to carry out market analyses once every year has not been met in practice and was removed by amendments to the Law on Electronic Communications that were adopted in June 2010. The new Serbian Law on Electronic Communications requires the NRA to complete its first market analysis of the seven relevant markets according to the 2007 EC recommendation within one year from the entry into force of the law (i.e. by July 2011).

2. Analysis of relevant markets by NRAs

Although there has been a general positive trend in the regulatory frameworks with a move towards competition law principles, there is still a long way to go between the amendment of the regulatory framework and its effective application. Several countries have achieved major progress with market analyses during 2010. New rounds of market analyses have been completed or are close to being completed in FYROM, Turkey, Albania and Montenegro. The regulators in FYROM, Turkey and Albania

have defined relevant markets based in the 2003 Commission recommendation on relevant markets, while the Montenegrin regulator applied market definitions based on the 2007 recommendation.

In FYROM, in 2010 the NRA has completed its first round analysis of the retail fixed markets for access and call services (M1-6/2003), retail and wholesale leased lines services (M7,13-14/2003, wholesale fixed call origination, termination and transit services (M8-10/2003), wholesale infrastructure and wholesale broadband access (M11-12/2003), and wholesale mobile access and call origination (M15/2003). At the same time, the Macedonian NRA has also carried out its second round analysis of the wholesale mobile call termination market for all three mobile operators (M16/2003) and approved asymmetric glide paths for MTRs reductions until August 2013.

In Turkey, the NRA has completed its second round of market analyses. In line with its first round, the analysed markets correspond to 16 relevant markets of the 2003 Commission recommendation on relevant markets (i.e. excluding the two wholesale markets for international roaming and broadcasting transmission services). Final decisions on all markets were adopted between December 2009 and February 2010. In all markets, similar to the first round analysis, ICTA imposed a full set of regulatory obligations, including the new remedy of wholesale line rental imposed on Türk Telekom in retail fixed markets for residential and business access (M1-2/2003).

In Albania, the NRA has also completed its second round market analysis. Similar to Turkey, the analysed markets correspond to 16 relevant markets of the 2003 Commission recommendation. The scope of regulatory obligations imposed on the fixed incumbent operator, Albtelecom, in the fixed retail and wholesale markets includes the obligations to provide CS/CPS and LLU access. However, the implementation of these obligations in practice would be linked to completing the tariff rebalancing process for Albtelecom. The new round analysis of wholesale call termination on individual mobile networks now covers three active mobile network operators that have been imposed a similar set of regulatory obligations, although the price control obligations allow asymmetric MTRs. The regulator has also removed the non-discrimination obligation that previously applied to termination of calls originating abroad.

In Montenegro, the regulator completed in November 2010 its first round of market analysis. In all seven markets, it imposed a full set of regulatory obligations including retail price controls, different forms of wholesale access obligations (interconnection, CS/CPS, WLR, LLU and WBA) and wholesale price controls based on benchmarking.

F. Competitive safeguards

1. Competitive safeguards overview

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 and introduced most of the key competitive safeguards.

	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)	✓	✓	✓	✗	✗	✗	✓*	✗

	HR	MK	TR	AL	BA	ME	RS	XK
Wholesale line rental (WLR)	X	✓	X	X	X	X	X	X
MVNO	X	X	X	X	X	X	X	✓*
National roaming	✓*	✓*	X	X	✓*	X	✓*	X
Regulatory cost accounting (LRIC) – fixed	X	✓	✓	✓	X	X	X	X
Regulatory cost accounting (LRIC) – mobile	X	✓	✓	✓	X	X	X	X
Legend: ✓ implemented - X not implemented - * commercial offer								

Table 8 - Implementation of competitive safeguards

2. 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, connected to the incumbent operator's network, to choose a competitive operator for making local calls, long-distance calls, calls to mobile networks, 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 provider for all calls or certain types of calls.

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

Country	Carrier selection/pre-selection			
	Local calls	National	International	Calls to mobile
Croatia	February 2005	February 2005	February 2005	February 2005
FYROM	May 2008	January 2007	January 2007	January 2007
Turkey	October 2009	April 2006 (CS) July 2006 (CPS)	April 2006 (CS) July 2006 (CPS)	April 2006 (CS) July 2006 (CPS)
Albania	Not available	Not available	Not available	Not available
Bosnia & Herzegovina	October 2006 (CS) July 2007 (CPS) – not yet available	October 2006 (CS) July 2007 (CPS) – not yet available	October 2006 (CS) July 2007 (CPS) - not yet available	October 2006 (CS) July 2007 (CPS) - not yet available
Montenegro	December 2007 (CS) CPS – not available	December 2007 (CS) CPS – not available	December 2007 (CS) CPS – not available	December 2007 (CS) CPS – not available
Serbia	Not available	Not available	Not available	Not available
Kosovo (under UNSCR 1244)	Not available	Not available	Not available	Not available

Table 9 - Availability of carrier selection and carrier pre-selection

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

In Turkey, CS has been available in the fixed network since April 2006 and CPS since July 2006 for long-distance and international calls, as well as for calls to mobile numbers. From October 2009, CS is also available for local calls. There are ten providers offering CPS and eight providers offering CS.

In Bosnia & Herzegovina, CS was introduced in October 2006 and CPS in July 2007. Six alternative operators offer CS services but none offers CPS.

In Montenegro, CS/CPS was introduced in December 2007 and applies to all fixed and mobile public network operators. However, only CS has been implemented in practice and included by the incumbent operator in its RIO. CS services are currently offered commercially by six providers.

In Albania, CS/CPS has been imposed as a regulatory obligation on Albtelecom, but the timing for its introduction has not been explicitly set pending the implementation of tariff rebalancing.

In Serbia, currently there is no legal obligation to offer CS/CPS and the timing of its introduction is not known.

In Kosovo, the obligation to provide CS/CPS for international calls was imposed on the incumbent operator in June 2010, but the service is not yet available in practice.

3. Number portability

Another important competitive safeguard is number portability, which enables subscribers to maintain their 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, FYROM and Turkey have implemented number portability for both fixed and mobile networks. In 2011, number portability for both fixed and mobile networks is expected to become available in Albania, Bosnia & Herzegovina and Montenegro, and for mobile networks in Serbia.

Croatia was the first country to successfully implement number portability for both fixed and mobile networks. Fixed number portability has been available since July 2005. Mobile number portability was delayed until October 2006. At the end of the first half of 2010, the Croatian NRA reported over 417,000 ported fixed numbers and around 125,000 mobile numbers.

In FYROM, number portability in fixed and mobile network was implemented in September 2008. The initial take-up, in particular for mobile networks, has been limited due to the one-off porting fee of around €10.00 that mobile operators charged to end-users. Following NRA decision of June 2009, maximum one-off porting fee for both fixed and mobile numbers has been brought to €3.23 (excluding VAT). As a result, statistics have more than doubled within a year. At the end of the first half of 2010, the NRA reported circa 25,000 ported fixed numbers and over 10,000 ported mobile numbers.

Turkey implemented mobile number portability in November 2008. It appears to have been a particular success with about 17.5 million mobile numbers ported as of July 1, 2010 and 22 million numbers as of October 1, 2010, equivalent to 35% of total mobile numbers. Fixed number portability was implemented in September 2009 with 17,452 numbers ported within one year.

In Albania, the Electronic Communications Law stipulates that number portability should have been implemented for both fixed and mobile numbers within one year from the enactment of the law, i.e., by June 26, 2009. However, in practice, it is expected to become available in early 2011.

In Bosnia & Herzegovina, fixed and mobile number portability was due to be implemented by December 2009. However, the implementation process has been delayed and now it is expected to become available in January 2011.

Montenegro has set the deadline of August 27, 2011 for the implementation of number portability in fixed and mobile networks.

In Serbia, the implementing regulations on number portability were adopted in February 2010. Currently they only apply to mobile networks and envisage the implementation deadline of January 1, 2011.

No clear deadline has been established for the implementation of number portability in Kosovo.

Article 30(4) of the Universal Service Directive amended in November 2009 introduces a new requirement for the porting of number and subsequent activation to be carried out within one working day.

The shortest timeframe for completing porting process is envisaged for mobile numbers in Serbia – 2 working days that could be extended in specific circumstances to 4 days. Albania set a timeframe of 3 working days for both, fixed and mobile numbers. The longest timeframe – 10 days – is envisaged in Bosnia & Herzegovina.

Country	Fixed number portability	Mobile number portability
Croatia	5 days	5 days
FYROM	7 days	7 days
Turkey	7 days	6 days
Albania	3 days	3 days
Bosnia & Herzegovina	10 days	10 days
Montenegro	5 days	5 days
Serbia	Not decided	2 – 4 days
Kosovo (under UNSCR 1244)	Not decided	Not decided

Table 10 - Number portability timeframe (working days)

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-in such numbers from another operator, usually the incumbent. 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 VoIP, respectively 075 and 078.⁶² In Turkey portability of nomadic VoIP for non-geographic numbers is available.

4. 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.

RIOs have been established and published by the fixed incumbent operators in all countries. 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 current versions of the RIOs were approved by the NRA in October 2009.

In FYROM, the fixed incumbent operator's RIO has been available since February 2006. The current version was approved by the NRA and is valid from May 2010. In July 2010, the NRA approved, the current RIOs for the three MNOs with SMP. The RIOs are valid from August 2010.

In Turkey, RIOs are published by fixed and mobile operators with SMP. The last amendments to the current RIOs were published in December 2009.

In Albania, Albtelecom's new RIO was approved by the NRA and is valid from February 2009. The RIOs of the two larger mobile operators were also approved by the NRA and are valid from February 2009. New RIOs based on the market analysis decisions of 2010 have been submitted by Albtelecom, Vodafone, AMC and Eagle Mobile to AKEP for approval and are currently reviewed by the regulator.

In Bosnia & Herzegovina, RIOs for the three fixed incumbent operators have been available since November 2006, and were last revised in November 2009 for Telekom Srpske and HT Mostar, and in April 2010 for BH Telecom. No mobile RIOs are currently available.

In Montenegro, the first RIO of Crnogorski 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. New RIOs of Crnogorski Telekom and the three mobile operators based on the recent market analysis decisions are not yet implemented.

In Serbia, the first RIO of the fixed incumbent operator was published in August 2008. A separate RIO for interconnection with VoIP providers was published in March 2009. Mobile RIOs have not been implemented as no mobile operator has been designated as having SMP.

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

⁶² The term 'nomadic services' refers to services where the user can connect to their VoIP service from 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.

5. 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 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 frequency band.

Only four countries have implemented LLU and have RUOs in place: Croatia since October 2005, FYROM since May 2006, Turkey since November 2006, and Bosnia & Herzegovina since January 2010. Following recent market analysis, the regulatory obligation to provide LLU access was imposed on the incumbent operators in Albania and Montenegro. However, the timing of introducing LLU in Albania would be linked to completing the tariff rebalancing process.

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 almost 130,000 unbundled loops as of Q1 2010, representing 7.6% of fixed lines. In Croatia there are six LLU agreements in place. Although Turkey has had a RUO since November 2006 and there are nine LLU agreements, only about 10,000 loops have been unbundled as of August 2010 on a network of around 18 million lines. In FYROM, there is only one agreement on LLU between Makedonski Telekom and the major alternative operator One, owned by Telekom Slovenije, with around 4,300 unbundled loops as of Q1 2010.

No clear deadlines have been established for the implementation of local loop unbundling in Serbia and in Kosovo.

6. 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. According to a common definition, there are four possible 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, FYROM and Turkey different options for bitstream access are available on the basis of regulated reference offers.

In Croatia, reference offer for bitstream access with handover at IP level has been available since December 2007. The latest version of the reference offer was approved by the NRA in October 2010. Before the introduction of the regulated offers, T-HT had been providing ADSL Transport service since 2006, covering the transmission capacity from DSLAM to BRAS with handover in the incumbent's IP network, and where the retail customer was still charged by T-HT for the ADSL line. There are five wholesale agreements in place covering over 19,000 lines.

In FYROM, Makedonski Telekom initially offered wholesale ADSL on commercial basis, providing a bitstream access product with IP level handover and a resale product. A bylaw on wholesale bitstream access and resale was adopted in December 2008 requiring Makedonski Telekom to submit a reference offer to the NRA. The first reference offer was approved by the NRA in July 2009 enabling handover at DSLAM, ATM and IP levels. So far, there is only one resale agreement in place covering nearly 20,000 broadband lines.

An obligation to provide bitstream access with IP handover and resale was imposed on Turk Telekom as early as 2004, but the first reference offer approved by the NRA became available only in August 2007. From 2008 there has been a massive migration by alternative operators from the resale product to bitstream access with IP handover, plus a significant number of new bitstream access connections, a process still ongoing. At the end of the first half of 2010 there were 13 agreements covering almost 470,000 bitstream access lines with IP handover and 25 resale agreements covering 13,590 lines. For comparison, at the start of 2008, there were only 1,200 bitstream access lines and 200,000 resale lines.

In other countries, this competitive safeguard is not yet a regulatory priority. In Serbia, Telekom Srbija, however, offers wholesale ADSL with IP handover on a commercial basis. Currently there are 27 agreements in place covering over 117,000 lines.

In Albania, Bosnia & Herzegovina, Montenegro and Kosovo, no form of bitstream access is currently available.

7. 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 take control over the billing relationship with the end user.

WLR is currently only available in FYROM, where a bylaw was adopted in December 2008, and the incumbent reference offer was approved by the NRA in March 2009. There are currently two WLR agreements in place. As of Q1 2010, the take-up of WLR was 12,075 lines, showing a considerable growth since January 2009 when only 1,233 lines had been reported. In Turkey, the obligation to provide WLR was imposed on Türk Telekom in December 2009, following the analysis of fixed retail access markets, but not yet implemented in practice. The first reference offer has been prepared by Turk Telekom and is currently being reviewed by the regulator.

8. National roaming, mobile access and call origination

When additional frequency licences are issued to new mobile operators, the regulator may also decide to require established operators to provide national roaming on their networks. National roaming obligations 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 had a temporary national roaming requirement to facilitate the entry of the new mobile operator. Bosnia & Herzegovina had national roaming requirements in order to ensure full national coverage for the three MNOs operating in three different entities. Now in both countries, national roaming agreements continue to exist, but on commercial basis. In FYROM and Serbia, the new entrant mobile operators (both are subsidiaries of Telekom 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, such as an obligation for MNOs to provide network access for mobile virtual network operators (MVNO) and service providers, in addition to the general obligation to negotiate interconnection.

Based on the market analyses of the wholesale mobile access and call origination, regulatory obligations to provide different forms of network access were imposed on mobile operators designated as having SMP in FYROM, Turkey and Albania. In FYROM, T-Mobile is required to provide MVNO access and must submit a reference offer for the NRA approval. In Turkey, Turkcell has to provide national roaming and MVNO access. In Albania, AMC and Vodafone Albania are required to offer access and call origination on cost-oriented terms to calling cards operators and providers of 0800 services. They also must offer national roaming and MVNO access on commercial terms.

In Kosovo in May 2008, the NRA adopted a policy framework for MVNOs 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 the monitored countries.

In Bosnia & Herzegovina, the NRA has developed guidelines for introducing MVNO and SP operations and relevant access provisions are expected to be introduced in the first RIOs of mobile operators that are expected to be implemented in 2011.

9. 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. The Directive does not mandate any specific price control methodology. The European Commission recommendation on the regulatory treatment of fixed and mobile termination rates adopted on May 7, 2009, envisages that by 2012 NRAs should set both FTRs and MTRs using a bottom-up forward-looking long-run incremental costs (BU-LRIC) model.

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 have not yet implemented cost-based pricing of regulated wholesale services but opted for the use of some form of benchmarking-based price controls.

So far only regulators in FYROM, Turkey and Albania have made progress in implementing cost accounting methodologies. In July 2010 the Macedonian NRA completed a BU-LRIC cost model for mobile networks and set individual glide paths for MTRs of T-Mobile, One and VIP until August 2013. In October 2010 it also completed a BU-LRIC model for fixed networks that will replace the currently used top-down LRIC methodology. The Albanian NRA completed its work on BU-LRAIC models for fixed and mobile networks in July 2010 and intends to set cost-oriented prices for fixed and mobile operators with SMP before the end of 2010.

G. Universal service

Most of the monitored countries have some form of universal service being delivered by one or more operators, 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 (US) 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), including functional internet access;
- provision of directories and directory enquiry services;
- public payphones; and
- special measures for disabled users.

The review of the scope of the universal service obligation (USO) was not included in the review of the EU 2003 regulatory framework for electronic communications completed in November 2009. Article 4(2) of the amended Universal Service Directive still mentions that a connection to a public communications network provided under the USO should provide *"data rates that are sufficient to permit functional internet access, taking into account prevailing technologies used by the majority of subscribers and technological feasibility."* However, the recital 5 in the revised Universal Service Directive on functional internet access has been amended to allow member states to define the minimum data rates beyond narrowband internet access.

The Commission is currently assessing whether the concept of universal service as it is designed today is still in line with the evolution of the electronic communications market. It intends to publish a

communication on the outcome of the review, which will also address the need for a possible legislative initiative.

Most of the monitored countries, with the exception of Bosnia & Herzegovina and Kosovo, have defined the scope of universal service in their legislation as broadly corresponding to the requirements of the Universal Service Directive. A draft regulation on the scope of US, the funding mechanism and the quality of service requirements was prepared by the Bosnian NRA but its adoption has been delayed pending approval by the Council of Ministers.

In the countries that have defined the scope of the US, only Montenegro has included broadband internet access with minimum transmission speed of 144 kbps. In all other countries, the definition of functional internet access covers only narrowband connections.

The Universal Service Directive requires any designation of US providers 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 or several 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 of the Universal Service Directive, mobile networks may be used for the provision of universal service. This could reduce the cost of universal service provision.

Croatia, FYROM, Albania, Montenegro and Serbia have defined US provisions in a technology neutral way, which would allow the participation in the provision of universal service by mobile operators. In practice, however, only the Serbian regulator have imposed US obligations in March 2010 in a technology-neutral way on all licensed fixed and mobile public network operators: i.e. Telekom Srbija, Telenor, VIP mobile and Orion Telecom.

Besides Serbia, US providers have been designated in Croatia that was the first country in the region to put a comprehensive universal service regime in place. The first designation of the incumbent operator T-HT as USO provider for a 5-year period took place in November 2005. In October 2010, following a tender procedure, the Croatian NRA designated two providers for different US components: Imenik – for provision of directory services and T-HT – for all other US elements, for another 5-year period.

In FYROM, the NRA launched a tender procedure to designate US providers in January 2008. The designation procedure, however, was not completed because certain issues that were not clearly defined in the law, in particular the designation of several providers covering only specific universal service components or specific geographic areas. Following the amendments to the Law for Electronic Communications adopted in June 2010, the NRA adopted a new bylaw on US provision and plans to resume shortly the US provider designation procedure.

In Montenegro, the Law on Electronic Communications adopted in July 2008 provides legal basis for the universal service. In October 2010, following the adoption of the secondary regulations complementing the universal service framework, the Montenegrin NRA launched a public tender procedure for the designation of the universal service provider, inviting offers until December 20, 2010.

In all the remaining countries, no decisions on the designation of the US providers have been taken yet.

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

In Albania, under the 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 and no provider has been designated.

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.

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, which has not been achieved so far.

2. Universal service funding

Article 12 of the Universal Service Directive 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 Montenegro have adopted legislation that allows introducing compensation schemes based on a cost sharing mechanism. Albania, Bosnia & Herzegovina and Serbia envisage adoption of similar regulations providing for the sharing of universal service cost between operators. In Kosovo, no decision has been taken yet on the universal service compensation mechanism.

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. Subscriber directories

a) 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 also have the right not to be included in the directory free of charge in all countries. The respective legislation typically applies to all subscribers, including subscribers of mobile services and subscribers with pre-paid contracts. Serbia does not have primary legislation on these topics; the rules only apply to fixed subscribers.

b) 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. This mechanism is foreseen in the laws of Croatia, FYROM, Albania and Montenegro.
- 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.

In all countries, providers of publicly available telecommunications services are obliged to grant access to their subscriber database. In Croatia, Turkey, Bosnia & Herzegovina, Serbia and Kosovo all undertakings that wish to publish directories or provide directory enquiry services are entitled to ask for access to subscriber data. In FYROM, Albania and Montenegro only designated universal service provider can enforce access to subscriber data.

With the exception of Croatia, none of the monitored countries has enabled provision of comprehensive directory services in practice. In Croatia, the incumbent operator T-Hrvatski Telekom was designated as universal service provider by the NRA in 2005 until November 2010, including the provision of the comprehensive directory and directory enquiry service. On October 1, 2010 HAKOM designated an alternative provider, Imenik, as US provider of directory services for a 5 years term.

In FYROM the recently adopted bylaw on Universal Services provision sets out the specific obligations related to the comprehensive directory and directory enquiry service. The tender procedure for the designation of the US providers is expected to be launched shortly. In Montenegro, the procedure to designate the US providers covering also the provision of the directory services is expected to be completed by end 2010.

4. 112 emergency number

Article 12 of the Universal Service Directive requires that all end-users of the electronic communications service for originating national calls to a number or numbers in a national telephone numbering plan, including users of public pay telephones, are able to call the emergency services free of charge and without having to use any means of payment, by using the single European emergency call number "112". Furthermore, caller location information must be made available free of charge to the authority handling emergency calls as soon as the call reaches that authority.

The new EU 2009 regulatory framework ensures that European citizens gain better access to emergency services by extending the 112 access requirements from traditional telephony to new technologies (such as VoIP), strengthening operators' obligation to provide information about caller location to emergency authorities and improving access to 112 for people with disabilities.

Only Croatia and Montenegro have so far fully implemented access to 112 emergency number. In Turkey, 112 is implemented only for access to medical emergency services, while access to other emergency services is currently being implemented. In all remaining countries, other numbers are being used for access to emergency services that are free of charge for callers.

In Montenegro the obligation on fixed operators only applies to the incumbent.

Caller location information for emergency services is provided in all countries, except for Albania and Kosovo. In Serbia caller location is available for over 96% of fixed network subscribers.

5. Itemised billing

Article 10 and Annex I of the Universal Service Directive give subscribers the right 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 e-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 on request.

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

The provisions in the e-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. No country obliges operators to disguise the last digits in the numbers. Croatia, FYROM,

Albania, Montenegro and Serbia 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. In Bosnia & Herzegovina, this obligation only applies to fixed network operators.

The following table provides an overview of the provisions on itemised billing.

	HR	MK	TR	AL	BA	ME	RS	XK
Right to receive itemised bills	✓	*	✓	✓	✓	✓	✓	✓
Right to receive non-itemised bills	✓	✗	✓	✓	✓	✓	✓	✓
Methods for protection of privacy, such as excluding calls to toll-free numbers	✓	✓	✗	✓	*	✓	✓	✗
✓ = implemented, * = partly implemented, ✗ = not implemented								

Table 11 - Itemised billing

6. 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 of 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. Only Croatia has so far published the actual performance against the targets set out in the QoS requirements for the universal service provider. The Macedonian NRA is currently validating the reported data and intends to publish them shortly on its website.

	HR	MK	TR	AL	BA	ME	RS	XK
QoS targets imposed by NRA?	✓	✓	✓	✓	✓	✗	✓	✓
Actual performance published?	✓	✗	✗	✗	✗	✗	✗	✗
QoS: penalties for non compliance?	✗	✗	✓	✗	✗	✗	✗	✗
✓ = implemented, ✗ = not implemented								

Table 12 - Quality of service requirements

H. Fixed retail telephony tariffs

1. Retail tariff rebalancing

Assessment of fixed retail telephony tariffs shows one trend common for most of the monitored countries: the overall progress with tariff rebalancing remains slow.

The ending of monopolies in all countries has meant that the incumbent fixed line operators are bringing their tariffs more into balance with the underlying costs of providing their services. Where monopoly providers keep monthly rental and local call charges low in order to make basic service more affordable, this move is traditionally subsidised by excessive prices on national and international calls.

NRAs have typically enforced a tariff rebalancing process, where retail tariffs are allowed to adjust within a defined basket of services with the overall changes in the customers' bills being kept within an applied "price cap". After a period of adjustment the dual process of competition and tariff rebalancing should bring benefits to consumers in the form of lower overall bills. Those customers that stay with the incumbent may

have to pay more in line rental than before, but any increases are generally offset by reduced call charges in a more competitive market.

With retail tariff rebalancing, the market should benefit significantly because, when relative tariffs more in balance with the underlying relative costs, the investment decisions for the incumbent and new operators are not distorted by loss-making services and the need for cross-subsidy.

For comparison, the EU experience on fixed retail tariffs according to the 15th Implementation Report shows the following trends⁶³:

- Rentals and local tariffs rise:*
 In the EU member states, over the period from 2000 to 2009, the EU-27 weighted average residential monthly rental per month has risen by 36%, from €11.00 per month (including VAT) to €15.00 per month. At the same time, the EU-27 weighted average charges for a 3 minutes local call have risen by almost 21%.
- While national and international call tariffs fall:*
 Over the same period, from 2000 to 2009, international call baskets for residential customers have fallen in price by almost 58%, and the EU-27 weighted average charges for a 3 minutes national call have fallen by 41%.

The graph below shows that only Croatia and Turkey have approached the cost oriented charges for monthly line rentals, coming close to the EU-27 average of €15.00 per month. Other countries, including FYROM, Turkey, Bosnia & Herzegovina, Montenegro and Kosovo, have made some progress to increase monthly rentals over the last five years. In Serbia, the monthly rental increased by 80% between October 2009 and July 2010, although the overall level still remains very low. In Turkey monthly rentals increased by 50% during the last monitoring period, but price changes only affect new subscribers.

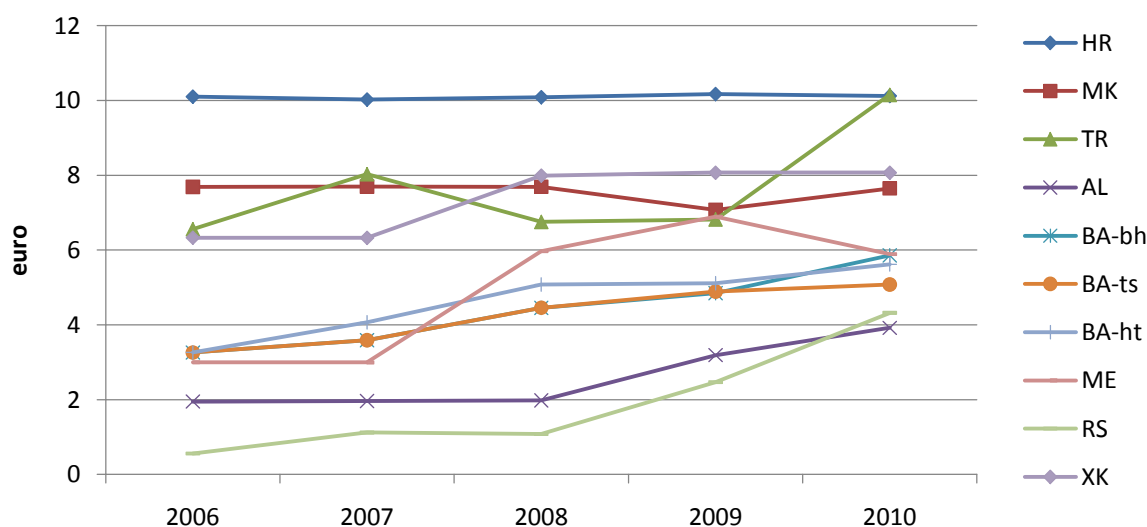


Figure 19 - Residential line rentals by incumbent, including VAT, 2006-2010

Local call tariffs in most SEE countries have been quite stable since October 2009 for most countries. The only exceptions were Montenegro where the price of local on-net calls increased by 120%, Bosnia & Herzegovina, with a 50% increase for Telekom Srpske, and Albania with a further increase by 39% (in addition to the 113% increase reported in October 2009). In Serbia, local call tariffs remain the lowest in the region. The EU average of 14 eurocents for a 3-minute call has only been approached by Croatia, closely followed by Turkey. The other countries appear to charge for local calls significantly below cost.

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http://ec.europa.eu/information_society/policy/ecomm/doc/implementation_enforcement/annualreports/15threport/15report_part2.pdf

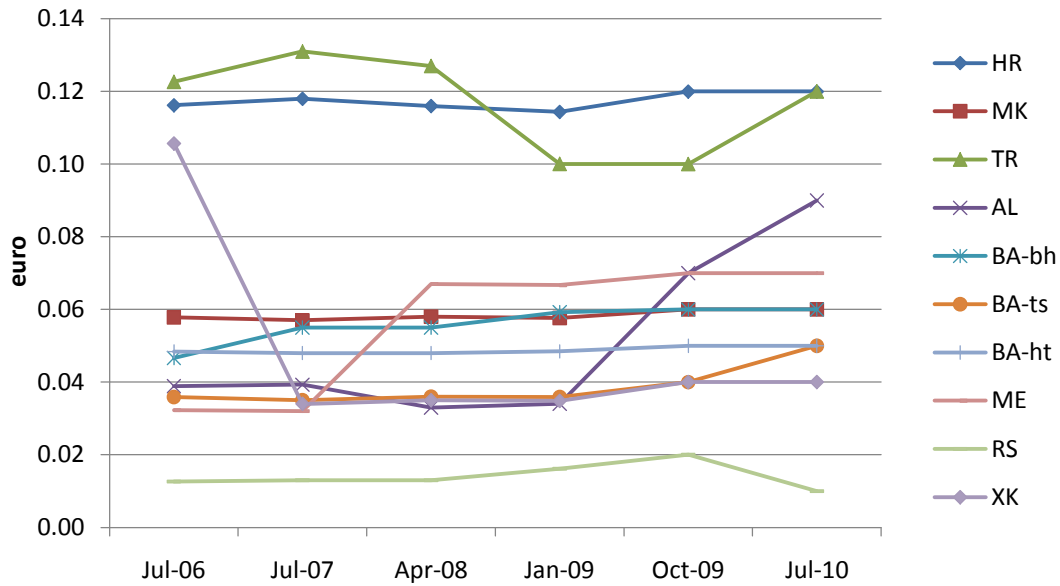


Figure 20 - Residential charges for a 3-minute local call by incumbent, including VAT, 2006-2010

Meanwhile, as the figure below shows, the cost of making a 3-minute national long distance call has decreased significantly only in Bosnia & Herzegovina: 20% decrease reported between October 2009 and July 2010. In Turkey, on the contrary, prices increased by 25%. In Albania prices continue to decrease but are still among the highest in the region. Consumers in Serbia and Kosovo appear still to enjoy national call tariffs which are significantly below costs.

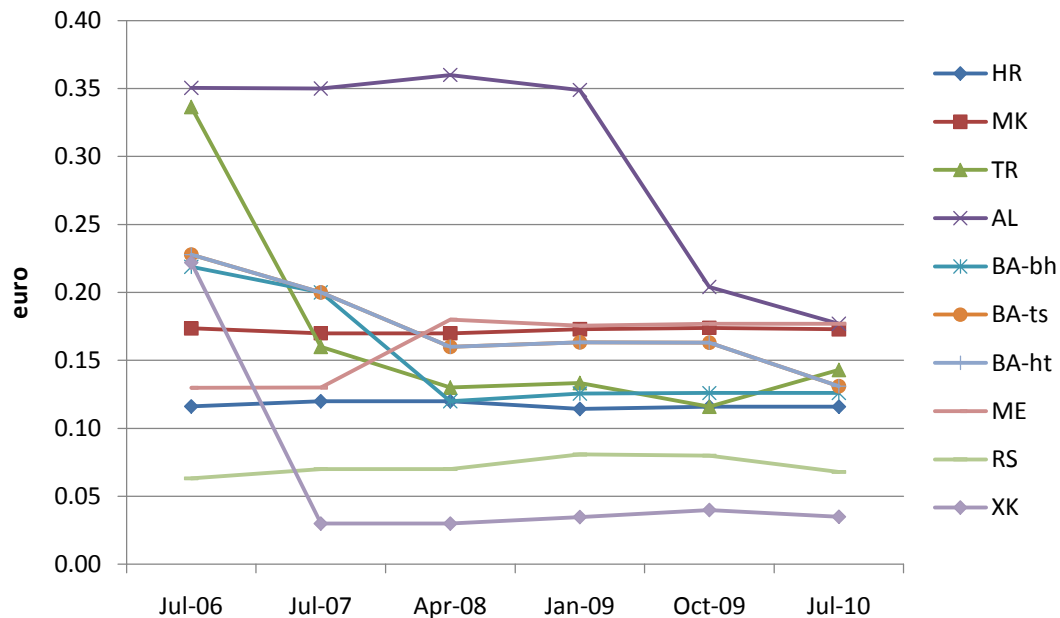


Figure 21 - Residential charges for a 3-minute long distance call by incumbent, including VAT, 2006-2010

The level of charges for fixed to mobile calls remained relatively stable in most of the monitored countries, with the exception of Albania and Kosovo. In Albania, fixed to mobile charges have been considerably decreasing since 2006, and reached a further 15% decrease between October 2009 and July 2010.

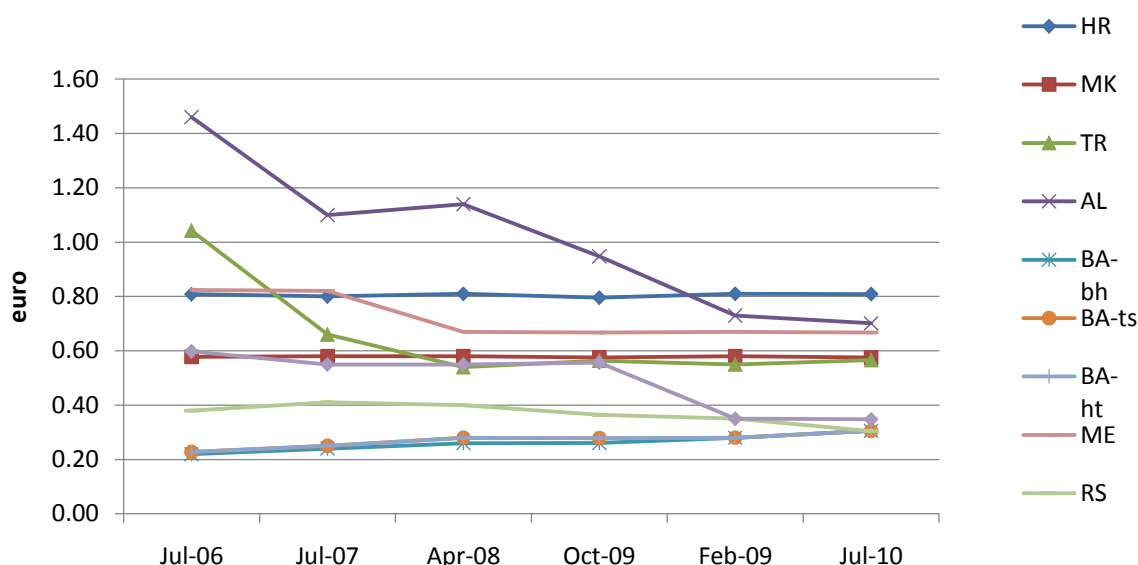


Figure 22 - Residential charges for a 3-minute fixed to mobile call by incumbent, including VAT, 2006-2010

For international calls, all incumbents appear to be responding to more competitive conditions. Tariffs have shown a reducing trend since 2006, as illustrated by the call charges to the UK. The most significant decreases from October 2009 to July 2010 were observed in Bosnia & Herzegovina: 23% by Telekom Srpske and 10% by Hrvatske Telekomunikacije Mostar.

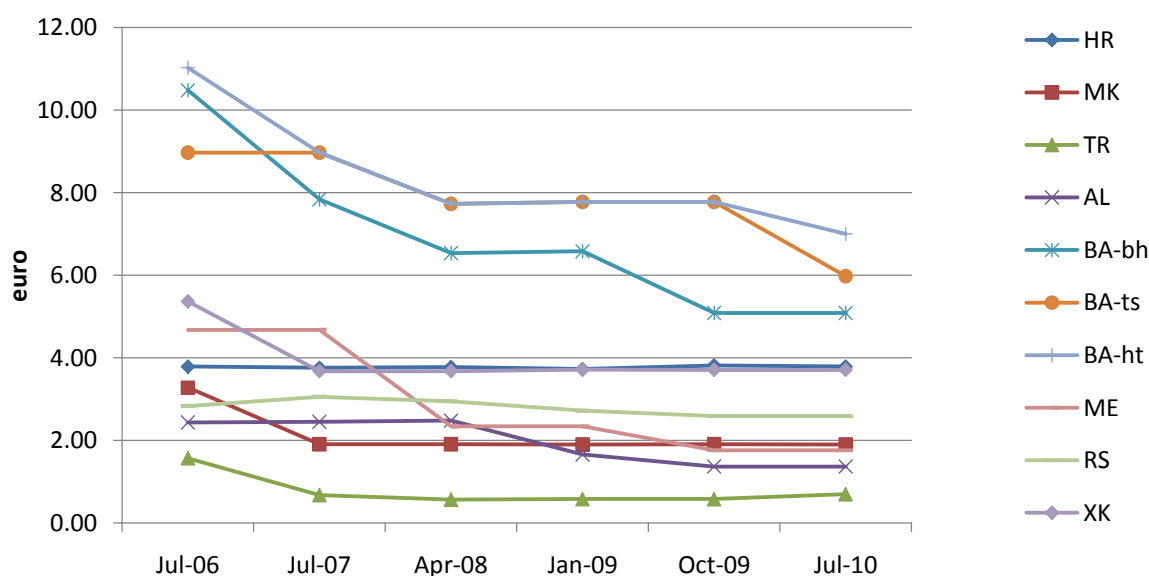


Figure 23 - Residential charges for a 10-minute international call to UK by incumbent, including VAT, 2006-2010

Rebalancing of the incumbent operator’s retail tariffs is ongoing in all countries of the region.

Three countries, Croatia, FYROM and Turkey appear to have made significant progress in terms of implementing tariff rebalancing.

Albania has approved a two-year rebalancing scheme for the fixed incumbent, which commenced in September 2008 and continued during 2009 and 2010 with significant increases in monthly line rentals and local call charges in parallel with reductions in fixed to mobile and international call tariffs.

In Bosnia & Herzegovina the rebalancing process is carried out in several phases with the second phase scheduled during 2009-2011.

Serbia is at a very early stage of tariff rebalancing. In October 2008 the NRA approved an increase by up to 100% in monthly rentals and impulse charges, as well as uniform call prices for residential and business customers. In February 2010, a further increase of the monthly rental was approved, starting from April 1, 2010.

2. Regulation of retail tariffs

A cost-based approach is theoretically closer to the philosophy of the EU regulatory framework while a price cap approach has the advantage of being easier to use. Although price cap methodologies still predominate in the SEE region, other tariff regulatory methodologies are now beginning to appear and replace price caps.

Croatia has a price squeeze test based on the SMP operator's own costs, where retail prices have to cover the SMP operator's own network and commercial costs. Serbia and Kosovo are using a cost-based assessment, the details have not been made available but it is understood that neither of them has implemented a comprehensive costing model.

Three of the eight countries have used a price cap approach – FYROM, Turkey and Albania – applying "CPI±X" methodologies. In FYROM, under the concession agreement of the incumbent operator the overall price cap CPI+6% applied to the basket of residential fixed tariffs, with two sub-caps – CPI+35% for local and long-distance calls and CPI+25% for residential monthly line rental charges. Following the termination of concession agreements in September 2008, no regulation currently applies to the incumbent's retail prices.

In Turkey, CPI-3.3% has been applied to the fixed voice telephony basket until December 31, 2009. A by-law on tariffs that came into force on November 12, 2009 introduced an advance retail tariff notification requirement for the incumbent Türk Telekom and a lower limit applicable to all fixed operators.

In Albania, there is a rate of RPI-RPI (i.e. a zero increase price cap) applied to a whole basket of residential and business services including connection fees, monthly subscriptions, local, national and international calls and leased lines. There are also sub-caps applied to individual fixed services: RPI+15% for residential monthly rentals, RPI+4.25% for local calls, RPI-15% for national calls, and RPI-20% for calls to mobile numbers. The Albanian NRA also applies a requirement for prices to be no higher than the EU averages.

Bosnia-Herzegovina considers combining the use of benchmarks with a price cap.

No retail price regulation is currently applied in Montenegro. Following a consultation on a draft rulebook for tariffs in public telecommunication service, a price cap method was defined but not applied yet.

All countries have included a provision for formal advance notification of any new retail prices to the NRA. Where a prior period is specified, it ranges from 8 to 30 days.

3. Monthly subscription fees for residential and business users

This section reviews the monthly rental prices for PSTN fixed lines for residential subscribers in nominal euro with value added tax included and for business subscribers, without VAT. The figure below provides a ranking of standard residential monthly rental, starting from the cheapest to the most expensive standard residential monthly rental. Two separate columns show low usage residential monthly rental and business monthly rental.

Country	Standard residential monthly rental	Low usage residential monthly rental	Business monthly rental
Albania	€3.92	-	€11.08
Serbia	€4.32	€2.16	€3.66
Bosnia & Herzegovina	€5.08-€5.86 (including €1.60-€3.20 of calls)	€2.50 (including €1.60-€3.20 of calls)	€8.39 (including €1.60-€3.20 of calls)
Montenegro	€5.89 (including €1.30 of calls)	€3.04	€5.10
FYROM	€7.65	€4.22	€11.38
Kosovo (UNSCR 1244)	€8.07 (including €10.00 of calls)	€4.03	€21.74 (including €100.00 of calls)
Croatia	€10.12 (including €1.67 of calls)	€5.06 (including €3.39 of calls)	€9.67

Country	Standard residential monthly rental	Low usage residential monthly rental	Business monthly rental
Turkey	€10.15	-	€8.78

Table 13 - Monthly subscription fees

Residential subscribers pay less than business subscribers in most of the countries, particularly in Albania, Bosnia & Herzegovina, FYROM and Kosovo. Turkey, Montenegro and Serbia have the same charges for both subscriber categories after eliminating the difference caused by VAT. During 2010, the only significant changes took place in Serbia, with increases by 80% in both residential and business monthly rental charges, and in Turkey, where charges for new subscribers increased by 50%. In Albania the monthly charges increased by 31% and 20% since October 2009, respectively, for residential and business tariffs.

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 that take into consideration differences in relative price levels. The graph below shows the differences in standard monthly rentals when presented in nominal euro and in PPP values. Taking relative price levels into account means that the prices for consumers in the region appear higher than those expressed using the nominal exchange rate.

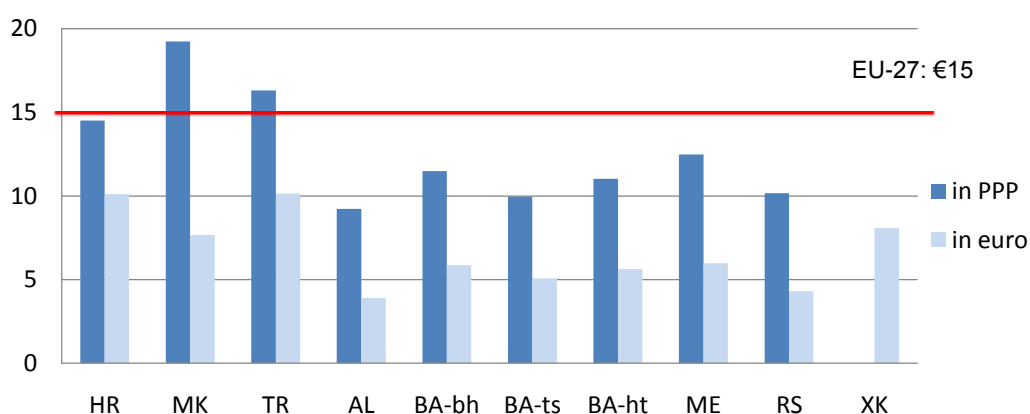


Figure 24 - Standard residential monthly rental in €/PPP and nominal euro, including VAT, July 2010

Further increases in line rentals should be expected before the monitored countries approach closer to the EU-27 average level. This has been achieved in Croatia and Turkey. In FYROM, the PPP value is considerably above the EU-27 average. This raises the critical issue of affordability of a basic fixed telephony subscription, which should be addressed through the implementation of universal service. Countries where residential monthly rentals appear to be below cost-oriented levels on a PPP basis are Albania, Bosnia & Herzegovina and Serbia. It is more difficult to make an assessment for Kosovo, as no PPP calculations are available.

4. One-off connection charges

This section analyses the initial charges for the new line connection and reconnection for residential and business subscriptions. The new line connection charge is the price of a new installation in a location that has not been connected before. The reconnection charge is the price 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 table below shows the applicable charges ranking 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
Kosovo (UNSCR 1244)	€10.00	€2.02	Same as residential	Same as residential
Turkey	€3.40	€3.40	Same as residential	Same as residential
Serbia	€55.70	€4.15	€94.30	Same as residential

Country	Residential (including VAT)		Business (excluding VAT)	
	New line connection charge	Reconnection charge	New line connection charge	Reconnection charge
FYROM	€23.78	€7.65 (monthly rental)	Same as residential	€11.38 (monthly rental)
Croatia	84.29	10.12	Same as residential	Same as residential
Montenegro	€65.00	€12.50	Same as residential	Same as residential
Albania	€35.47	€35.47	Same as residential	Same as residential
Bosnia & Herzegovina	€36 to €48	€36 to €48	Same as residential	Same as residential

Table 14 - Connection charges

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

In general, a reconnection charge is significantly cheaper than a new installation (as would be expected by the lower costs involved). The exceptions are Albania, Bosnia & Herzegovina and Turkey where the prices are the same. Albanian charges are no longer the highest among the monitored countries. In 2010, the charges decreased by 42.7% from € 62 to € 35.50. This follows a 42% reduction introduced in 2009. Now the highest charges are applied in Bosnia & Herzegovina.

Initial connection charges are higher than monthly rental charges, ranging from 25% difference in Kosovo to being almost 10 times greater in Albania. The exception is Turkey, where monthly rental charges are three times higher than the initial connection charge.

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

There is very little real competition in the local calls market, possibly reflecting that incumbent operators in the monitored countries traditionally under-priced local calls, making it difficult for alternative operators to compete. In Croatia, FYROM, Turkey and Bosnia & Herzegovina alternative service providers are quoting cheaper local call prices. In Albania Montenegro and Kosovo, the local call tariffs of alternative operators by far exceed the incumbents' prices.

The description of alternative operators chosen for comparisons in this report is available in Table H.4 of the annex.

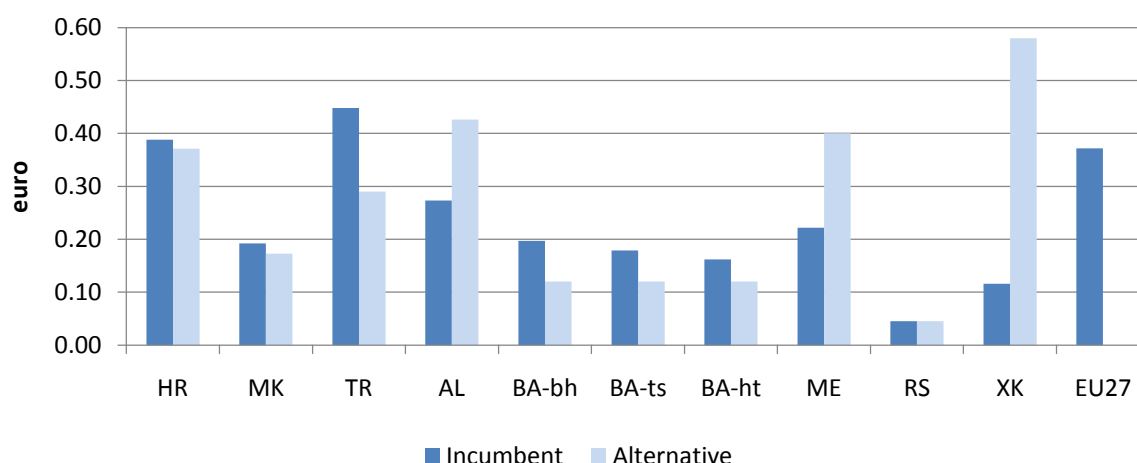


Figure 25 - 10-minute local call charges in euro for residential users, including VAT, July 2010

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

In FYROM, Turkey, and Montenegro, it is considerably cheaper to use an alternative operator for a 3-minute long distance national call. In Albania and Kosovo the competitors are significantly more expensive than the incumbent. Competition to incumbents' long-distance call services is primarily coming from VoIP services.

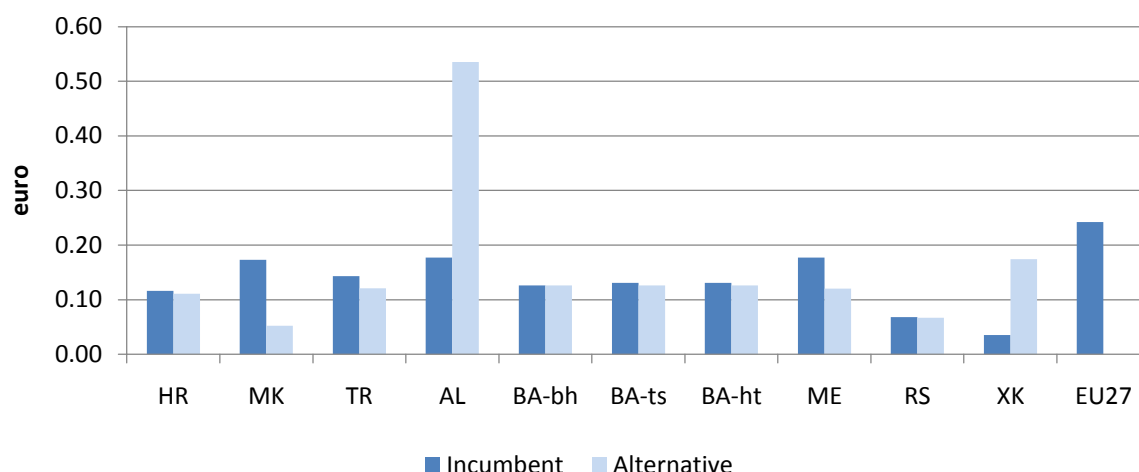


Figure 26 - 3-minute national call charges in euro for residential users, including VAT, July 2010

7. Fixed to mobile tariffs

In general, fixed to mobile prices are much more expensive than national long distance calls. Based on the level of charges for a 3-minute long call, the prices for fixed to mobile calls in the monitored countries are ranging from €0.28 in Bosnia & Herzegovina to €0.81 in Croatia.

In Bosnia & Herzegovina, where the differences are the smallest, a 3-minute call from a residential fixed line to a mobile number is 1.7 times more expensive than national calls to fixed lines. In Croatia, fixed to mobile calls are 7 times more expensive, but the difference is the largest in Kosovo, where fixed to mobile calls are almost 10 times more expensive.

Country	3 minute fixed to mobile call	3-minute fixed national call	Price Ratio
Bosnia & Herzegovina	€0.305	€0.126-0.131	2.3
FYROM	€0.575	€0.173	3.3
Montenegro	€0.667	€0.177	3.8
Albania	€0.701	€0.177	4.0
Turkey	€0.566	€0.143	4.0
Serbia	€0.304	€0.068	4.5
Croatia	€0.809	€0.116	7.0
Kosovo (UNSCR 1244)	€0.348	€0.035	9.9
Weighted SEE Average	€0.51	€0.13	3.9

Table 15 - Comparison of incumbents' charges for residential fixed to mobile charges and charges for national fixed calls

The weighted average for the SEE region is €0.51 for a 3-minute fixed to mobile call, which is 4.5 times the regional average for a fixed national call. For comparison, this is slightly lower than 4.5 times reported in 2009.

In Croatia, FYROM, Turkey, Bosnia & Herzegovina and Montenegro, alternative operators offer calls to mobile networks at the tariffs that are 8-24% lower than the incumbent's prices. In Serbia, where competition was introduced only recently, the competitor's price is only 1% cheaper than the incumbent's. In Kosovo prices are the same.

Albania clearly stands out among the monitored countries, as alternative operators' charges are considerably higher than the incumbent's, as shown in the next graph.

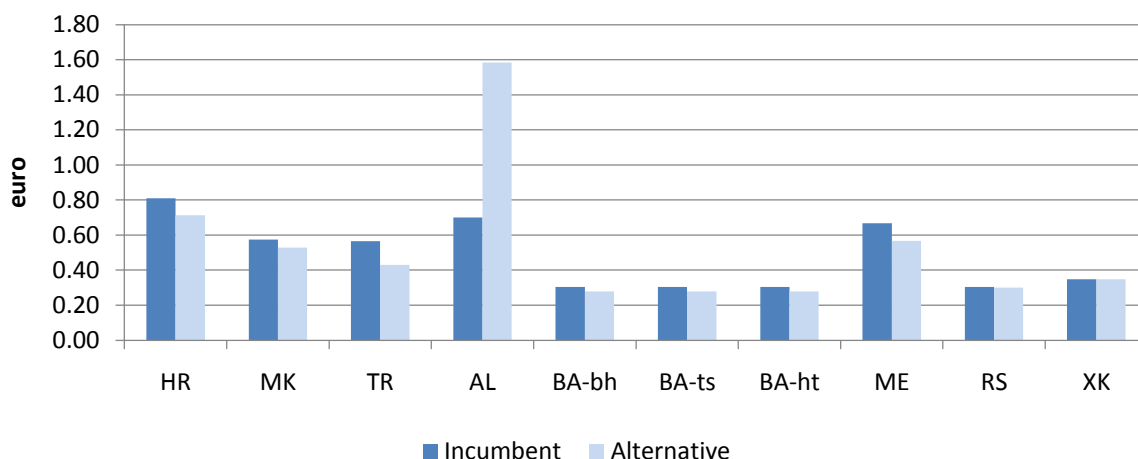


Figure 27 - 3-minute fixed to mobile call charges in euro for residential users, including VAT, July 2010

8. International tariffs

The report compares the cost of a 10-minute call to the UK and to the USA for each monitored country. There is considerable variation in the prices, as the graphs below illustrate, with Bosnia & Herzegovina being the most expensive while Turkey the cheapest.

Alternative operators are offering significantly lower prices than the incumbents for calls to the UK, with average discounts of 47% for residential customers and 42% for businesses, and to the USA with average discounts of 45% both for residential and business customers. The largest discounts of over 60% are offered by alternative fixed operators in Bosnia Herzegovina, Serbia and Kosovo, while the smallest discounts of less than 20% are to be found in FYROM, Montenegro and Croatia.

The only exception is Albania, where unfavourable conditions imposed by the incumbent still controlling international interconnection, have resulted in alternative operators charging significantly higher prices to customers for international calls.

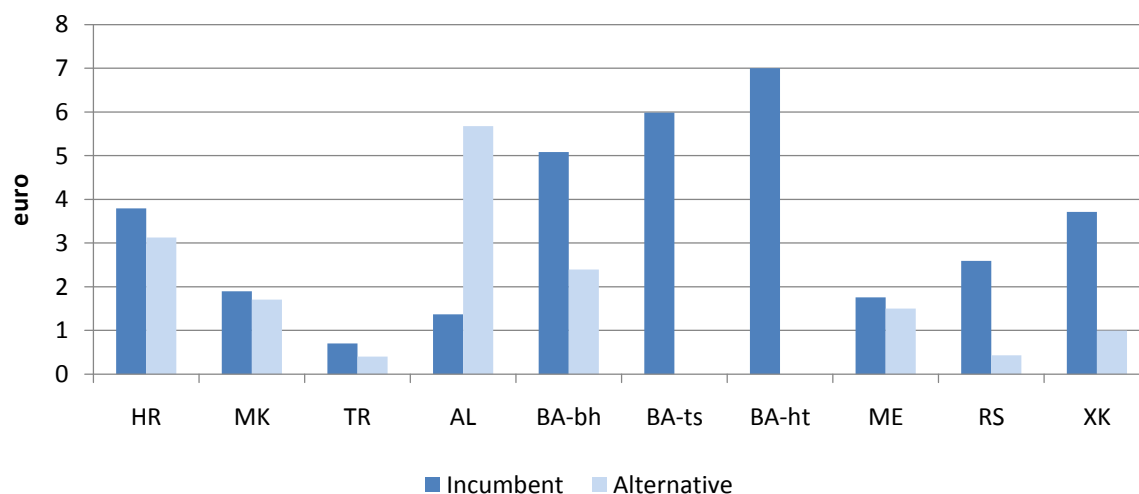


Figure 28 - Residential charges for a 10-minute call to the UK in euro, including VAT, July 2010

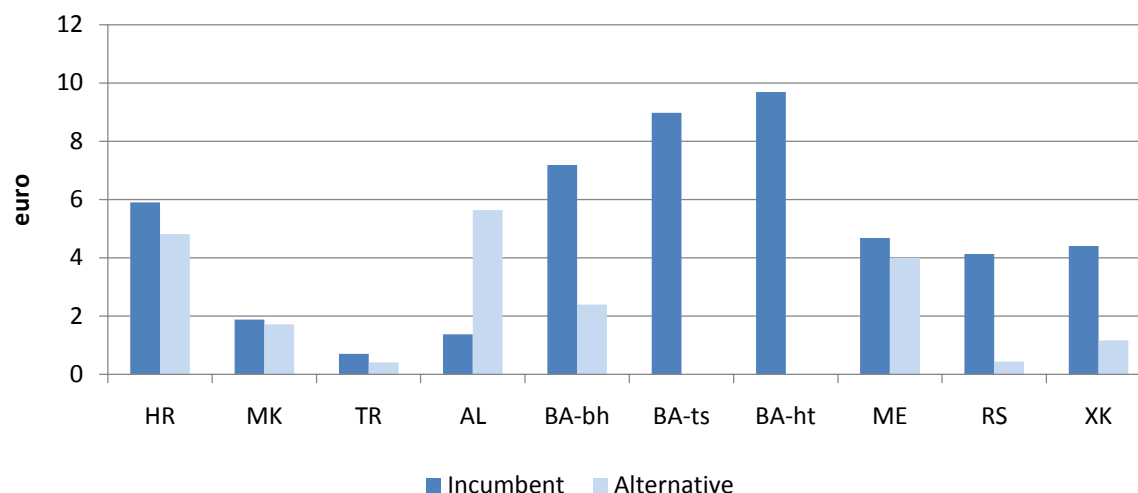


Figure 29 - Residential charges for a 10-minute call to the USA in euro, including VAT, July 2010

I. Mobile retail tariffs

Mobile network operators provide a range of tariff options that are rather 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 member countries, the OECD constructed a set of mobile tariff “baskets” building on its work in fixed telephony baskets.⁶⁴ These baskets are updated to 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. This report uses the 2006 baskets that can be directly compared with the EU results which also use the same methodology.

The results for low usage mobile basket in the monitored countries show that most countries have offerings that are cheaper than the simple average of EU mobile operators €11.41 per month, according to the 15th Implementation report. The exceptions are the two largest mobile operators in Turkey, Vodafone Albania, Vipnet in Croatia, and HT Mostar in Bosnia & Herzegovina.

In this monitoring report, Turkey provided two values: one is calculated in accordance with the earlier reports (packages with the highest number of subscribers). The tariffs applied for those packages are subject to change in relevance with the refilling amount. The other amount refers to alternative packages whose tariffs are valid if there is a refill within 30 days.

⁶⁴ <http://www.oecd.org/dataoecd/56/23/41049579.pdf>

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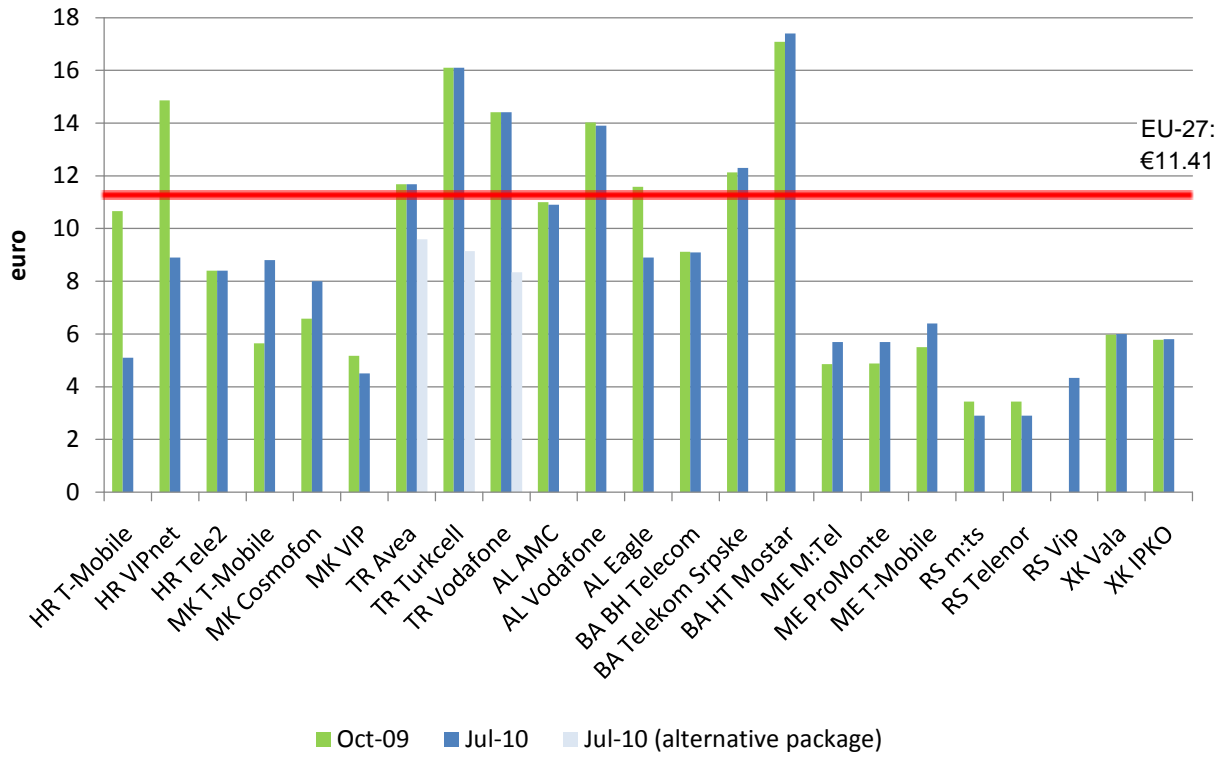


Figure 30 - Low usage basket in euro per month, including VAT

For medium usage baskets, where the EU average price is €19.25, offerings in Turkey, Albania and Bosnia & Herzegovina all remain significantly higher, while Croatia, FYROM, Montenegro and Serbia have at least one offering below than the average EU charges.

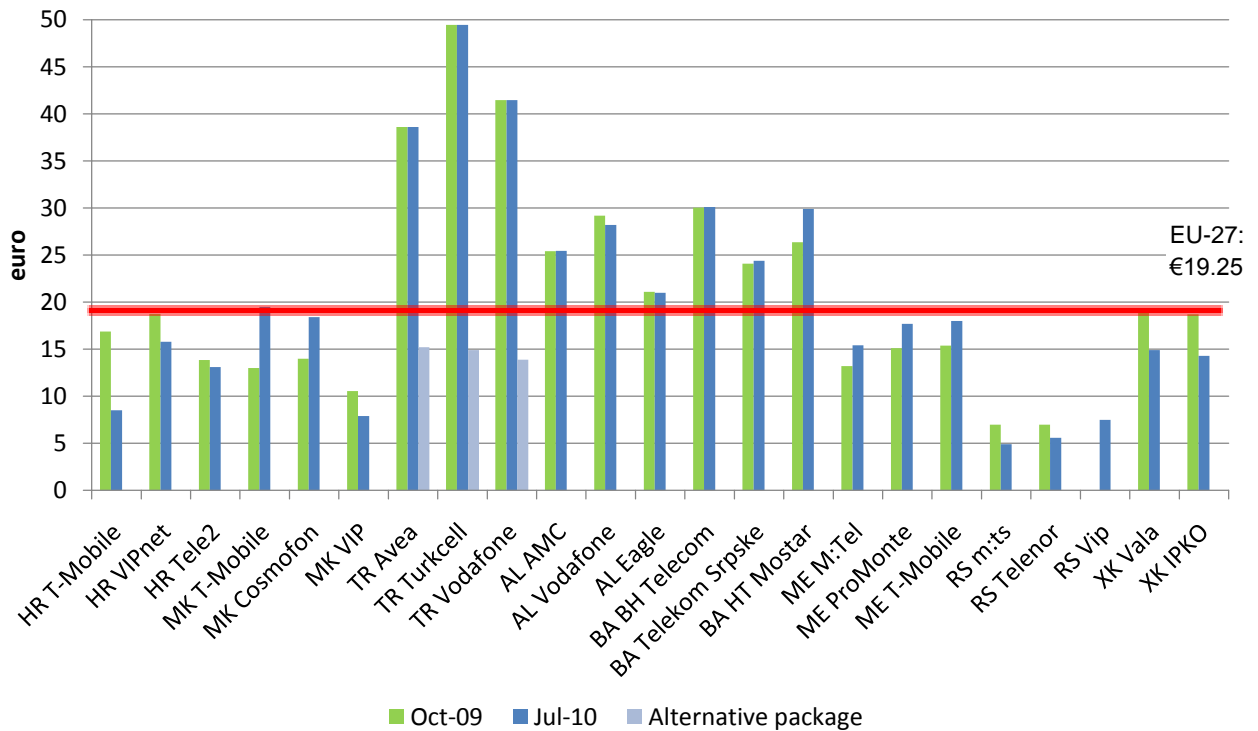


Figure 31 - Medium usage basket in euro per month, including VAT

For high usage baskets Turkey and Bosnia & Herzegovina are significantly above the EU average of €30.19, while offers in other countries, notably Croatia, FYROM, Montenegro and Kosovo are aligned with EU average prices or, as in the case of Serbia, offer better deals.

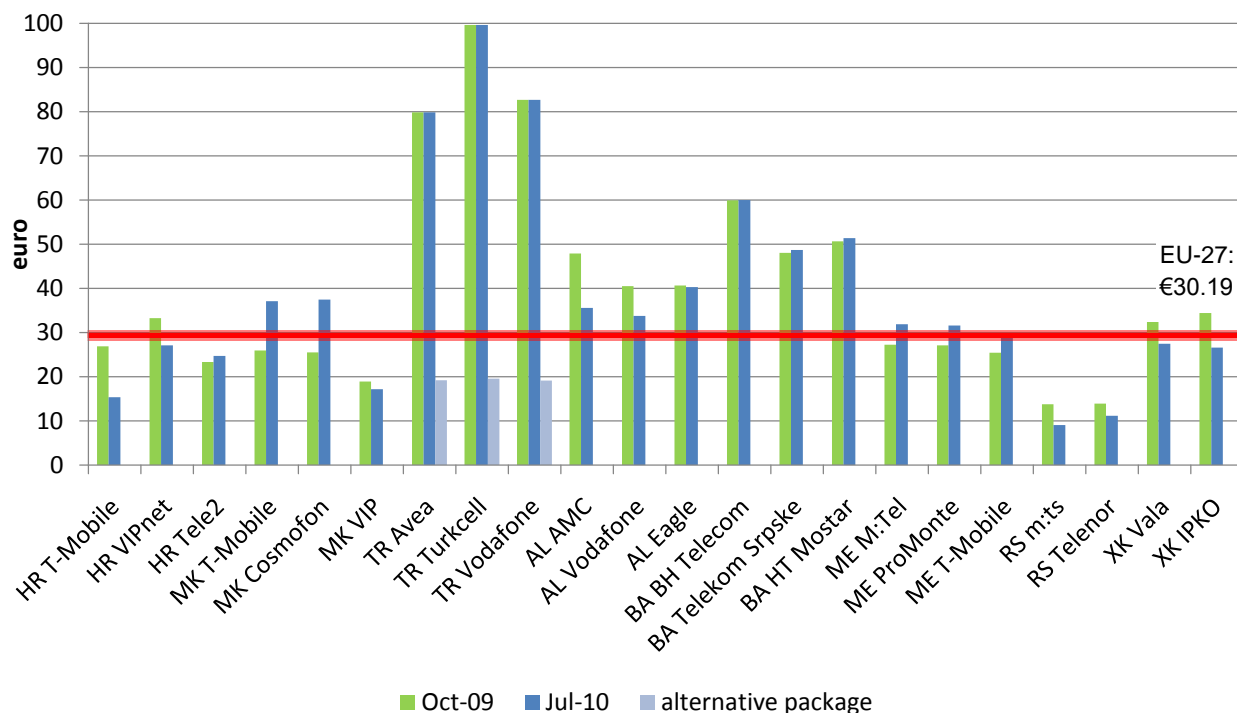


Figure 32 - High usage basket in euro per month, including VAT

J. Leased lines retail prices

1. National leased lines

Assessment of leased lines retail prices in the monitored countries shows that regulation has not yet made a significant effect on leased lines pricing.

Leased lines are important telecommunications services for business customers. They are used to link their premises together nationally and internationally with dedicated private lines of fixed capacity.

Analysed in this report are retail prices for 2 km leased lines of 64 kbps, 2 Mbps and 34 Mbps transmission capacity. All prices are annual, excluding VAT and without any one-off or connection charges.

The 15th Implementation report shows that the EU average prices for 2 km leased lines have fallen by 28% for 2 Mbps and 19% for 34 Mbps over the last 12 years and now stand at €5,952 per year (excluding VAT) for 2 Mbps and €33,756 per year for 34 Mbps⁶⁵: However, there still remain large variations in leased lines pricing for offerings with the same functional characteristics in terms of capacity and distance across the EU member states.

In each of the monitored countries, leased line prices have remained substantially unchanged over the last four years, and the only slight differences shown in the chart below are mostly due to exchange rates variations. The range of charges for the same functional offering is very wide across the region.

For example, the annual prices for 2 km 64 kbps leased lines vary from €516 in Turkey to €2,128 in Albania.

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http://ec.europa.eu/information_society/policy/ecomm/doc/implementation_enforcement/annualreports/15threport/15report_part2.pdf

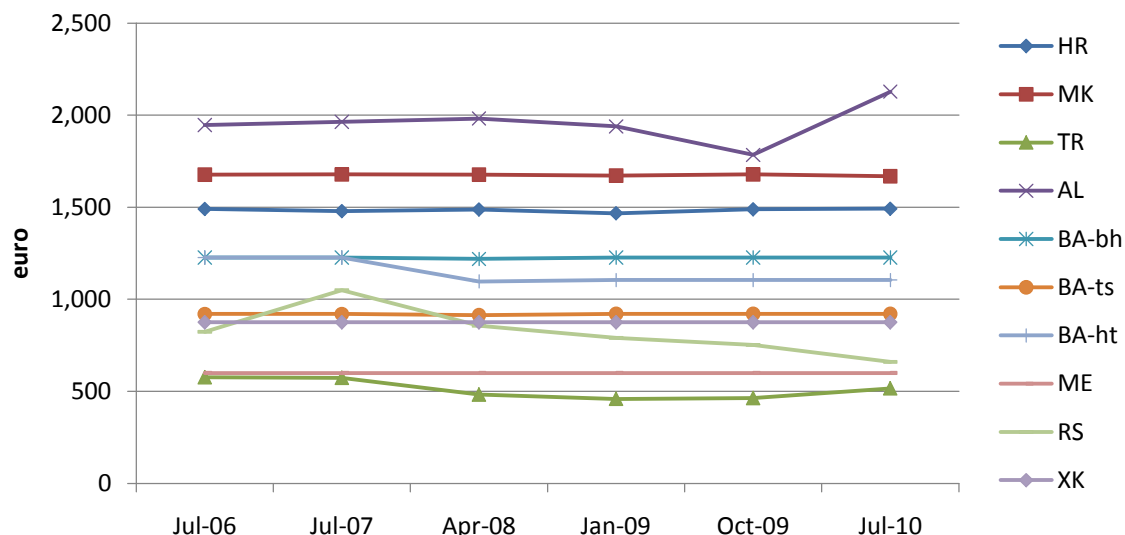


Figure 33 - Annual retail prices for 2 km 64 kbps leased lines

Turkey and Albania have the lowest annual charges among the monitored countries for 2 km 2 Mbps leased lines, respectively at €2,619 and €2,980. The highest annual prices for these offerings are in FYROM of €12,122. The EU average in 2009 was €5,952 per year.

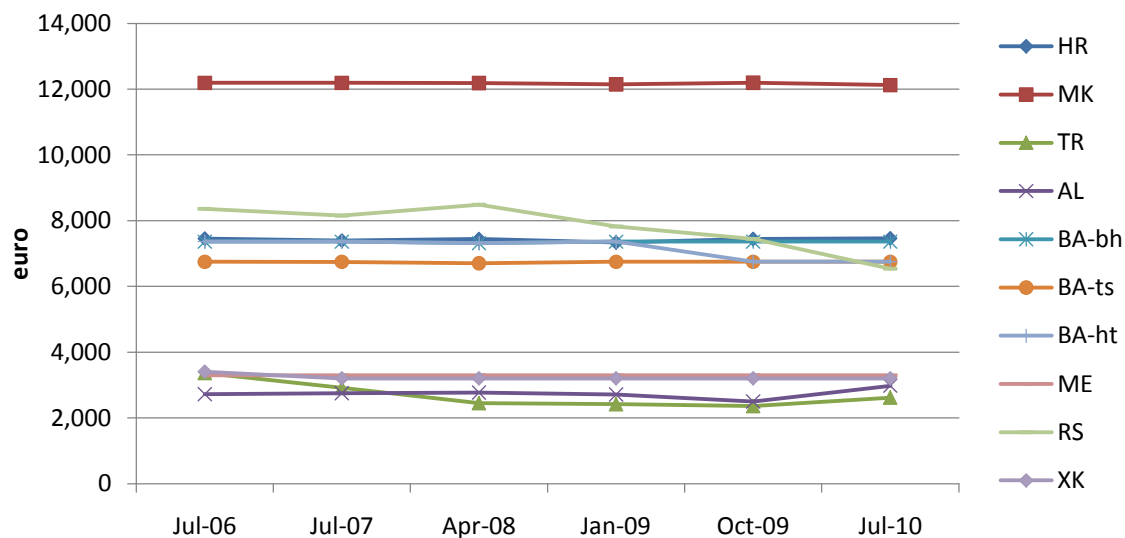


Figure 34 - Annual retail prices for 2 km 2 Mbps leased lines

For 34 Mbps, the lowest retail prices are in Turkey at 14,399 per year, followed by Kosovo at €15,048 per year. The most expensive prices are in Serbia at € 57,663 per year, but prices have been decreasing steadily since 2006. The EU-27 average in 2009 was €33,756 per year. In Albania, the prices for leased lines of 34 Mbps are not quoted, and in FYROM, since 2009, 34 Mbps leased lines are only available through radio links.

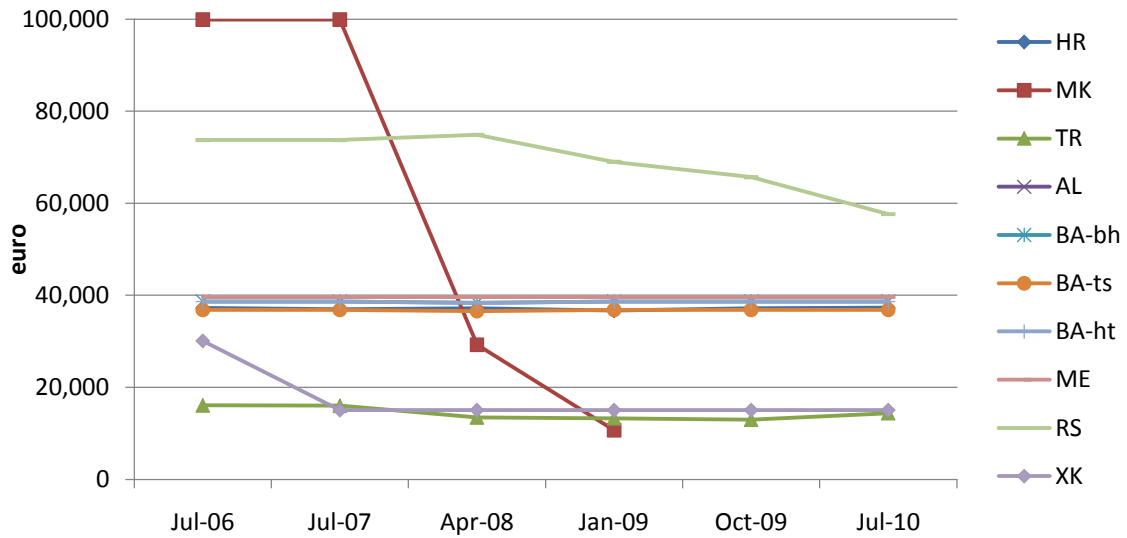


Figure 35 - Annual retail prices for 2 km 34 Mbps leased lines

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. This report analyses half circuit tariffs to a near country and also to a distant country which, for this report, has been taken to be the UK.

Prices have been generally reducing over the last four years, except in Albania, where the incumbent operator kept its tariffs for leased line offerings largely unchanged since mid-2007.

For 64 kbps international half circuits to a near country, since October 2009 tariffs have fallen to below €10,000 in all countries except Albania, where prices even increased by 30%, net of exchange rate variation. In FYROM, major price reductions took place in 2008, following a regulatory intervention.

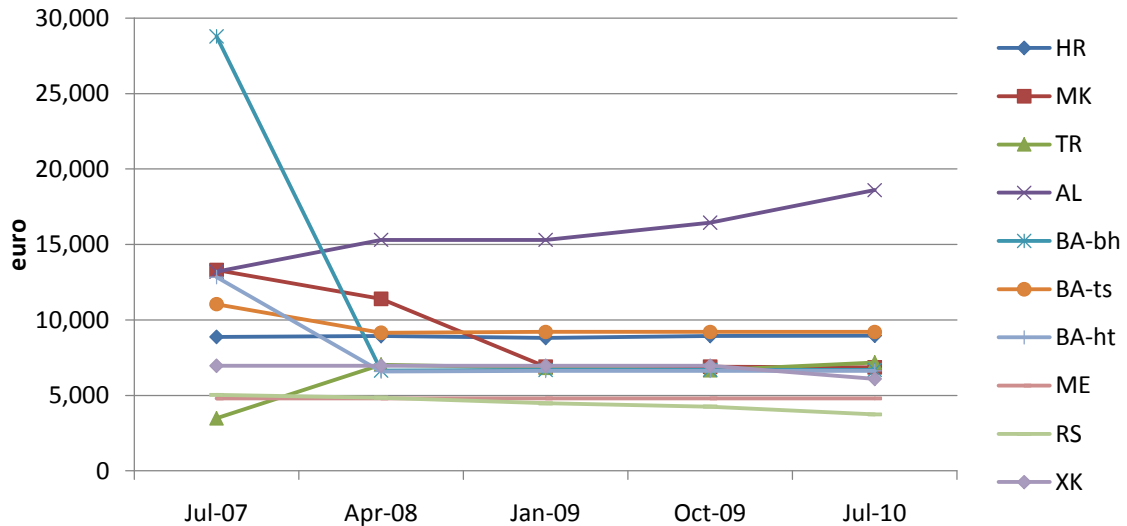


Figure 36 - Annual prices for international half circuits 64 kbps to near country

For 64 kbps half circuits to the UK, retail prices have not fallen so significantly. Charges in Albania and FYROM remain the highest in the region, with all other incumbent operators now charging below €13,000 per year.

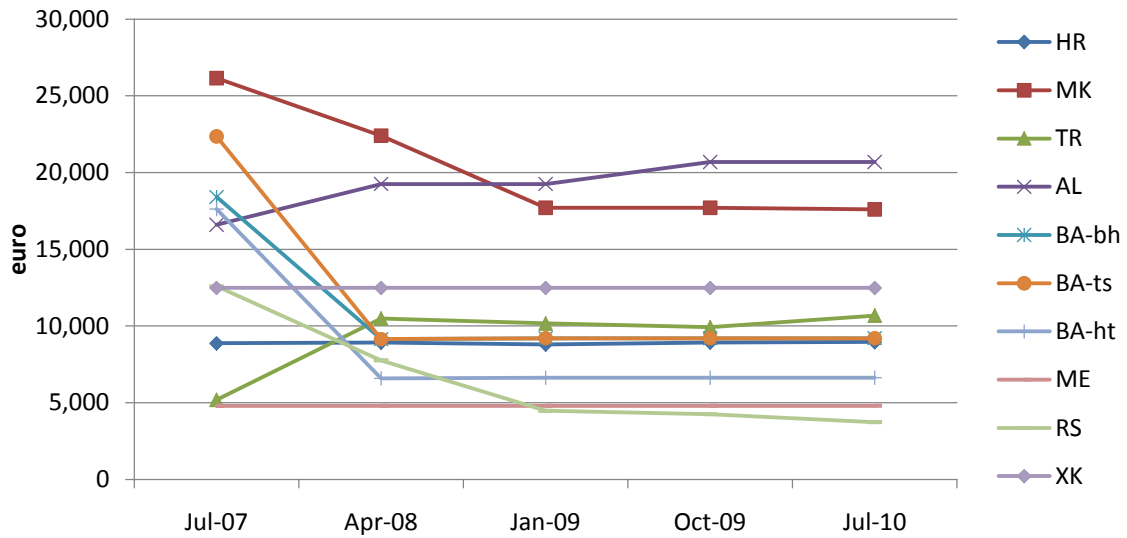


Figure 37 - Annual prices for international half circuits 64 kbps to the UK

For 2 Mbps half circuits to a near country, retail prices were reduced significantly, except in Albania, where they remain the highest among the monitored countries, by a significant margin. All other incumbents have reduced charges to below €100,000 per year. In FYROM, prices were significantly reduced based on the bylaw adopted by the NRA in September 2008.

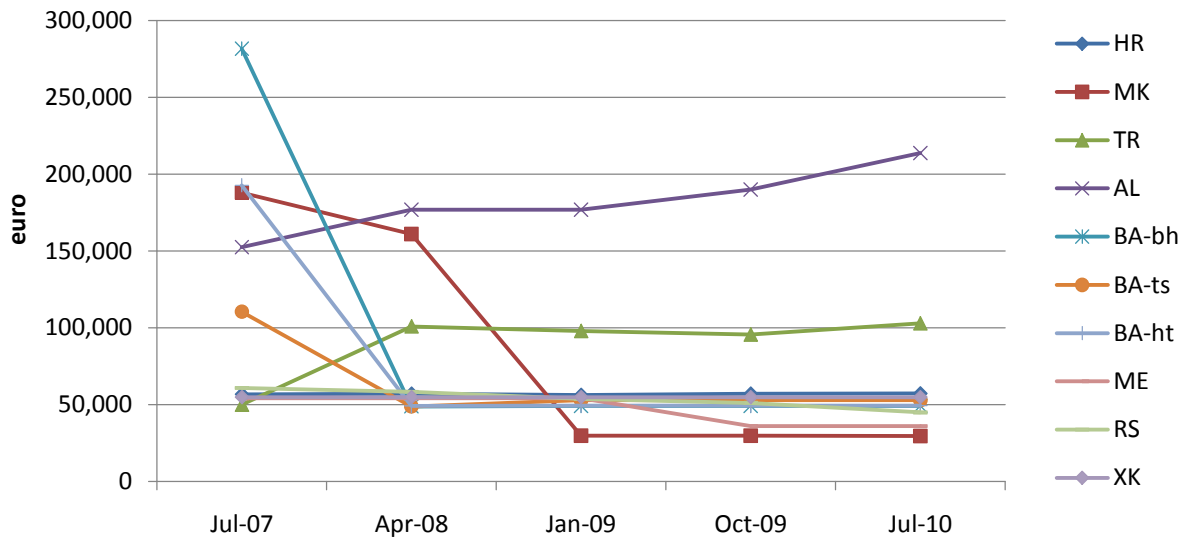


Figure 38 - Annual prices for international half circuits 2 Mbps to near country

In the case of 2 Mbps half circuits to the UK, charges have not fallen significantly, except in FYROM, Serbia and Bosnia & Herzegovina. Again, the Albanian incumbent's charges are significantly higher than in the rest of the region at €240,000 per year. Turkey also remains expensive at € 160,000 per year. Montenegro has the lowest prices, currently at € 36,000 per year, following a 33% reduction since January 2009. All other incumbents are keeping charges at below €100,000 per year.

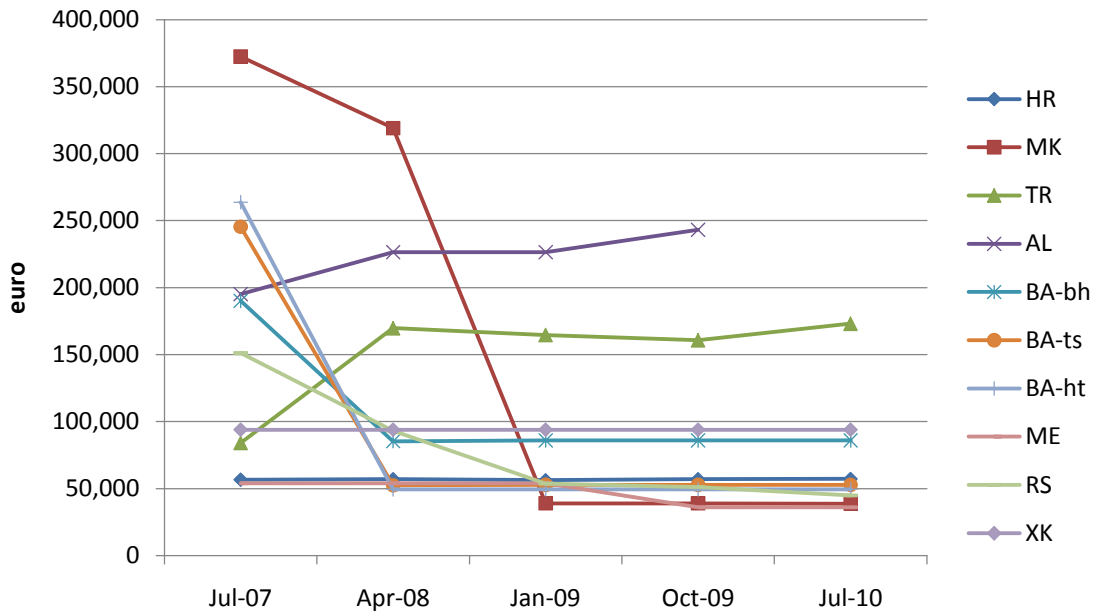


Figure 39 - Annual prices for international half circuits 2 Mbps to the UK

K. Internet and broadband retail prices

1. Dial-up internet access cost

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

This report analyses the cost of 40 hours dial-up access to the internet in peak time, including network usage and ISP charges. Prices are now reducing, reflecting growing competition from broadband. However, prices still vary considerably among countries and even within Bosnia & Herzegovina. The most expensive is FYROM at over €70 including VAT, followed by Croatia at €61. The remaining countries have reduced charges to between €20 and €40. Within Bosnia & Herzegovina, there is a range between BH Telecom at €21.72 and HT Mostar at €37.57.

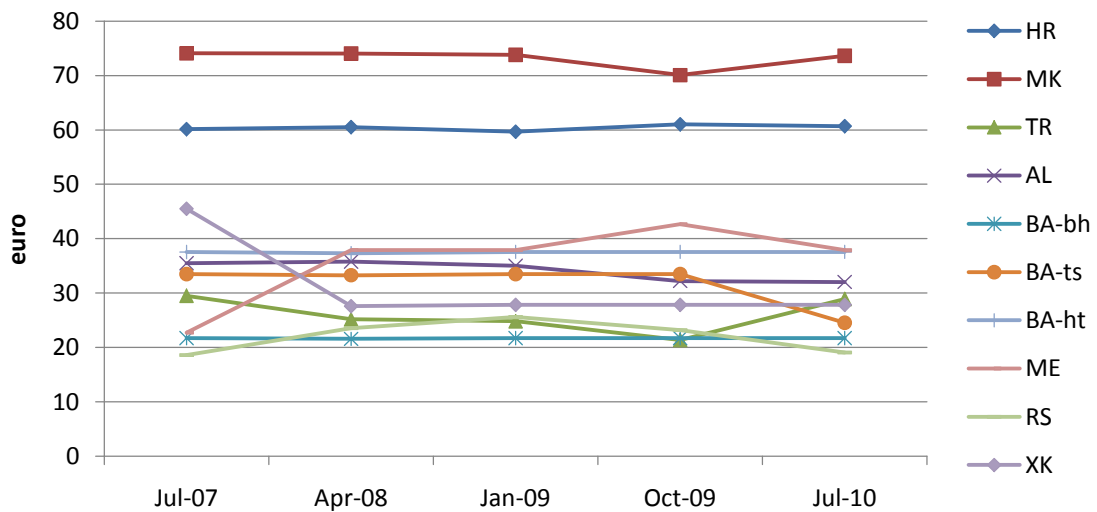


Figure 40 - Dial up internet charges for 40 hours peak time, including VAT

2. Fixed broadband internet access retail prices

This report analyses broadband offerings of the incumbent and the major alternative operator in each of the monitored countries with the following download speeds: 512 kbps, 1 Mbps and 2 Mbps.

An assessment of the offerings available in the eight countries shows a situation similar to the one observed in the EU member states: the lower speed offerings are phased out by higher speeds. In light of the above, there is limited availability of offers at relatively low speed rates from both incumbents and alternative operators. Comparability is affected by this situation, as is shown in the figures below.

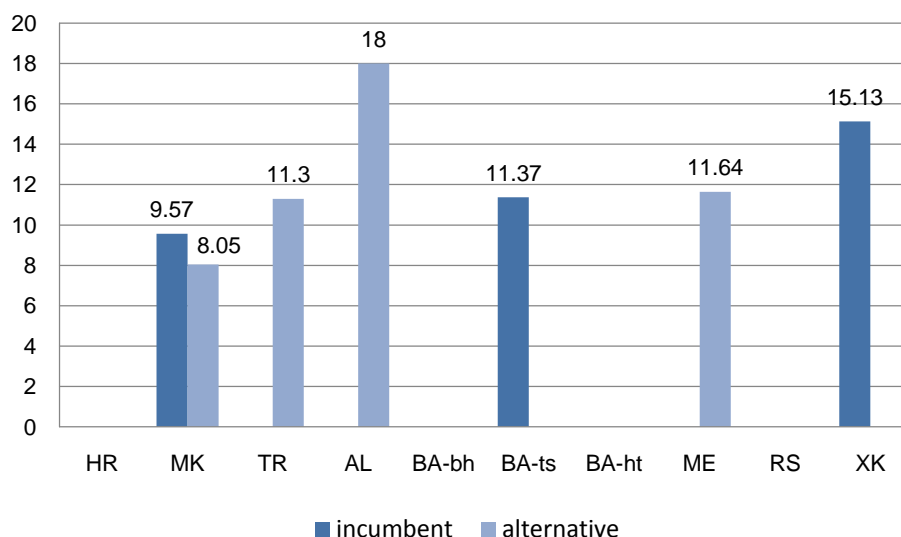


Figure 41 - Broadband 512 kbps monthly subscription charges in euro, including VAT, July 2010

Broadband offerings with the speed limit of 512 kbps are available in most of the countries, with the exception of Croatia and Serbia. However, they are not offered commercially by alternative operators in Croatia, Serbia, and Kosovo. In Croatia, all alternative operators offer broadband connections with minimum download speed of 2 Mbps.

The lowest monthly charges for a 512 kbps connection are offered in FYROM – below €10. The Macedonian incumbent offers with 512 kbps speed with a wide range of data limits from 15 GB up to 120 GB at a maximum charge of €26.83 a month. Albania has the highest monthly charges.

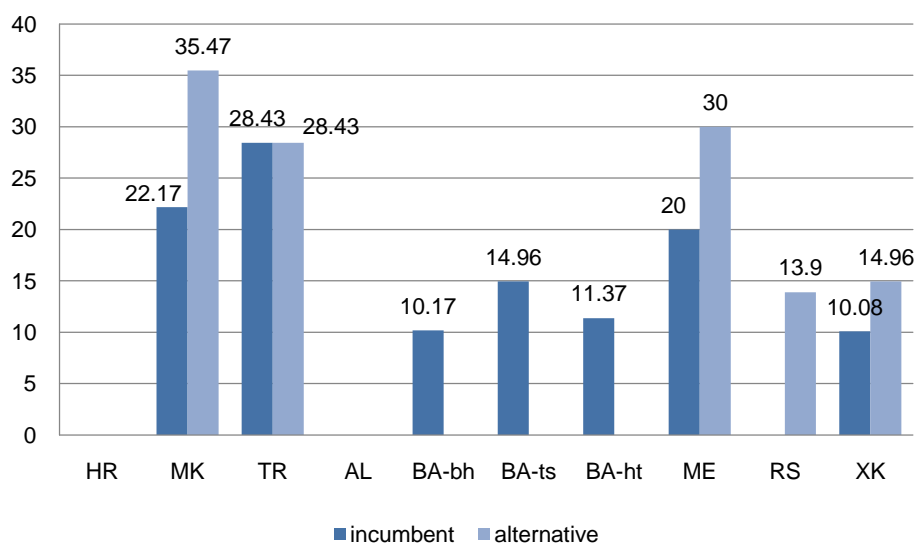


Figure 42 - Broadband 1 Mbps monthly subscription charges in euro, including VAT

The monthly charges for 1 Mbps tend to vary across the monitored countries, from approximately €10 to €15 in Bosnia & Herzegovina and Kosovo up to over €20 in FYROM and Montenegro for incumbent

operators. Alternative operators are more expensive than the incumbents in FYROM, Montenegro and Kosovo. In Serbia, the incumbent does not offer 1 Mbps broadband. No 1 Mbps offer is available in Croatia.

The offerings with 2 Mbps are not available in FYROM, while in Montenegro they are only offered by the alternative operators. The Montenegrin incumbent, however, offers broadband packages with higher download speeds of 3 Mbps and 6 Mbps.

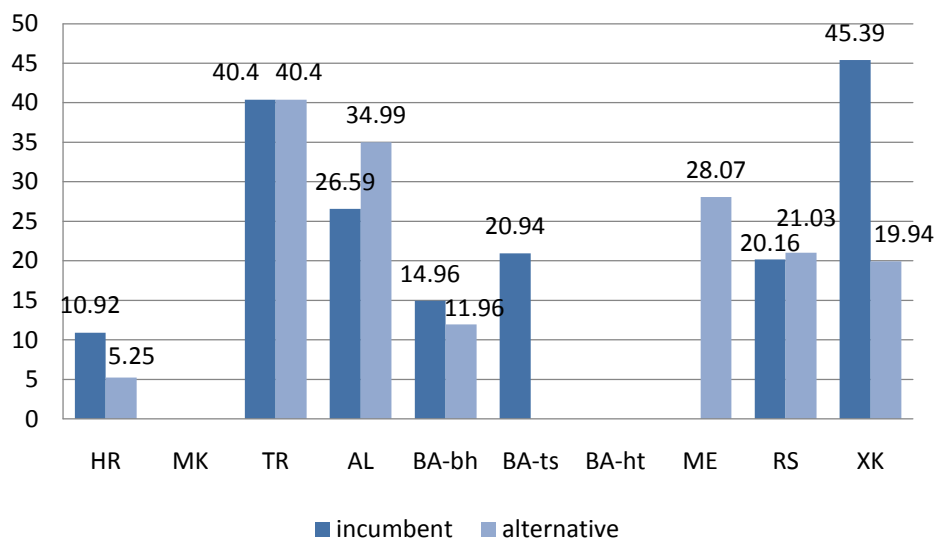


Figure 43 - Broadband 2 Mbps monthly subscription charges in euro, including VAT, July 2010

The monthly charges for a 2 Mbps connection show a lot more significant variations between the countries. The lowest prices are offered in Croatia, with €10.92 for the incumbent and even lower price of €5.25 for the alternative operator. At the other end of the scale, Turkey has the most expensive with prices above €40 for both incumbent and alternative operator. Albania is also expensive with prices offered by alternative operators higher than the incumbent.

The figure below compares broadband monthly subscription charges for 512 kbps, 1 Mbps, and 2 Mbps offerings of the incumbents in the monitored countries expressed in €/PPP, including VAT, with the EU-27 median offerings according to a 2008 European Commission study.⁶⁶ It does not include Kosovo, as no €/PPP exchange rates are available for Kosovo yet.

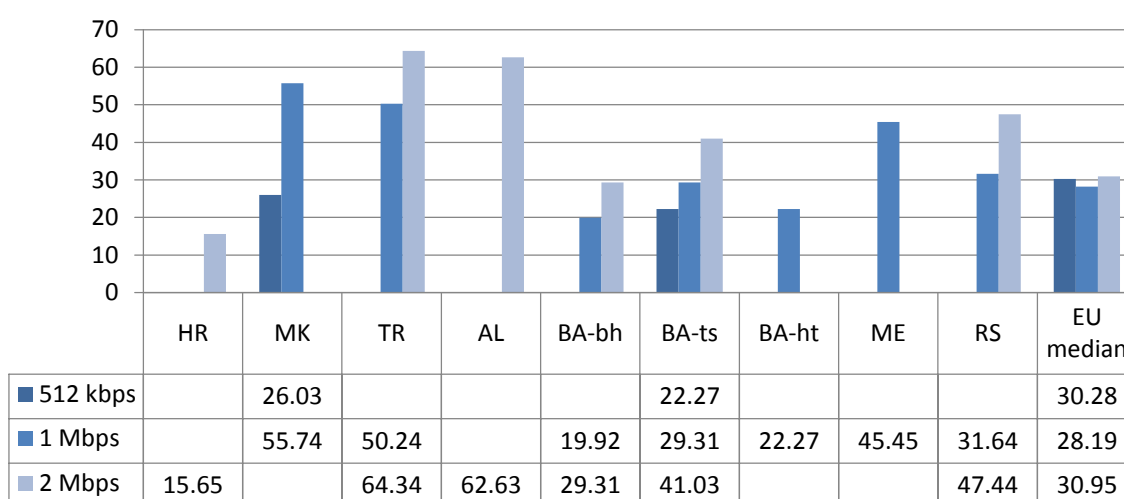


Figure 44 - Comparison of broadband monthly charges by incumbents with the EU median offerings in €/PPP, including VAT

⁶⁶ BIAC - First half of 2008, Final report, December 2008, Van Dijk Management Consultants

While 512 kbps offerings appear to be priced below the EU median values, 1 Mbps and 2 Mbps offerings are in general more expensive, with the only exception of Bosnia & Herzegovina and, for 2 Mbps offers, Croatia.

L. Wholesale tariffs

1. Call termination on fixed networks

Assessment of call termination on fixed networks in the monitored countries shows that call termination charges are gradually converging towards the EU average level. In some countries this has been the result of regulatory intervention and price controls that in the absence of more complex regulatory mechanisms such as cost accounting models typically apply benchmarking against the level of charges in the EU member states.

According to the 14th Implementation report, the weighted average EU-27 call termination charges on the incumbent's fixed network between 2005 and 2008 fell by 6.6% at the local level, 8.5% at the single transit level and 16.6% at the double transit level⁶⁷. According to the 15th implementation report, rates further decreased in 2009. As of October 2009, the weighted average EU-27 call termination charges were the following⁶⁸:

- Local level 0.52 eurocents per minute (8.7% decrease from 2008)
- Single transit level 0.79 eurocents per minute (8.1% decrease from 2008)
- Double transit level 1.09 eurocents per minute (6% decrease from 2008)

The figures below show call termination rates on the incumbent's fixed network as of July 2010 (except for Albanian rates that reflect the situation as of September 2010).

In most of the monitored countries, the fixed incumbent operators apply the same termination charges regardless of whether the call originates on national fixed or mobile networks. The exceptions are Turkey, Serbia and Kosovo where the termination of calls originating on mobile networks is higher than fixed to fixed call termination.

In five countries, call termination charges on the incumbent's fixed network at the local level are set close to the EU average level: Croatia, FYROM, Albania, as well as in Turkey (since 2009) and Serbia (since 2010). In Montenegro and Kosovo, prices are four and six times higher, respectively, than in the EU-27. Since October 2009, tariffs considerably decreased in Serbia (peak time termination charges decreased respectively by 84% at local level, by 67% at single transit and by 75% at double transit level). The decrease, however, only applies to calls originating on fixed networks. For calls originating on mobile networks, termination charges remained unchanged.

In Albania, following the implementation on new BU-LRAIC cost model, from September 1, 2010 Altelecom's fixed termination rates have nearly doubled at all levels of interconnection. In Turkey, both local and single transit termination charges remain the same but double transit charges decreased by almost 17%.

⁶⁷ http://ec.europa.eu/information_society/policy/ecomm/doc/implementation_enforcement/annualreports/14threport/annex2.pdf

⁶⁸

http://ec.europa.eu/information_society/policy/ecomm/doc/implementation_enforcement/annualreports/15threport/15report_part2.pdf

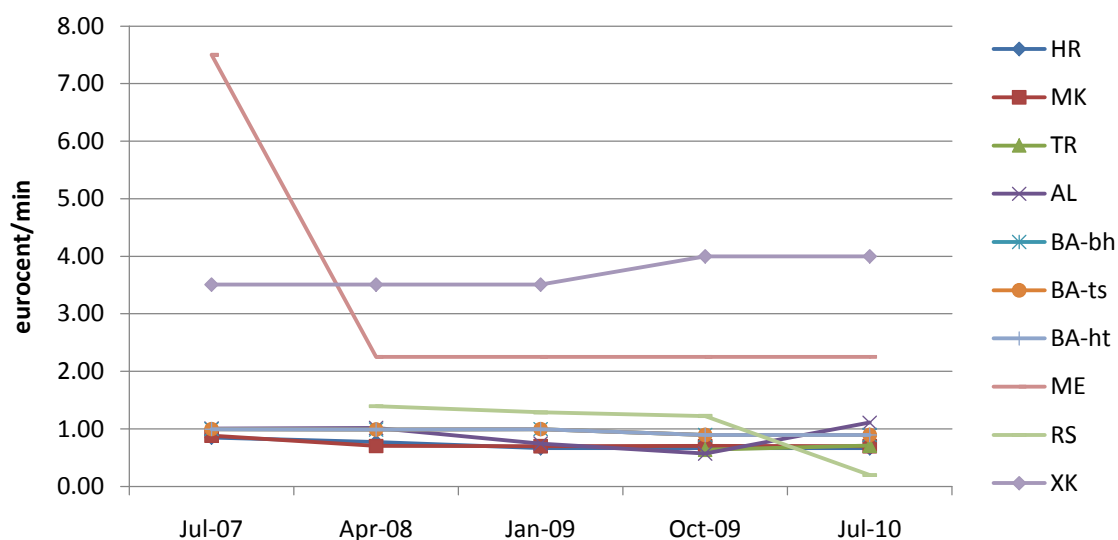


Figure 45 - Local call termination charges on the incumbent's fixed network, peak time

At the single transit level, call termination charges on the incumbent's fixed network are close to the EU average in FYROM, in Turkey and, from 2010, in Serbia. In Albania, the charges decreased by 23.5% during 2009 but increased by 104% in 2010. Single transit termination decreased from October 2009 in Serbia by 62% and in Croatia by 11%. Call termination charges are still higher than the EU average in Bosnia & Herzegovina, in spite of the 12.5% decrease in 2009. In Kosovo, call termination is only offered at the local level.

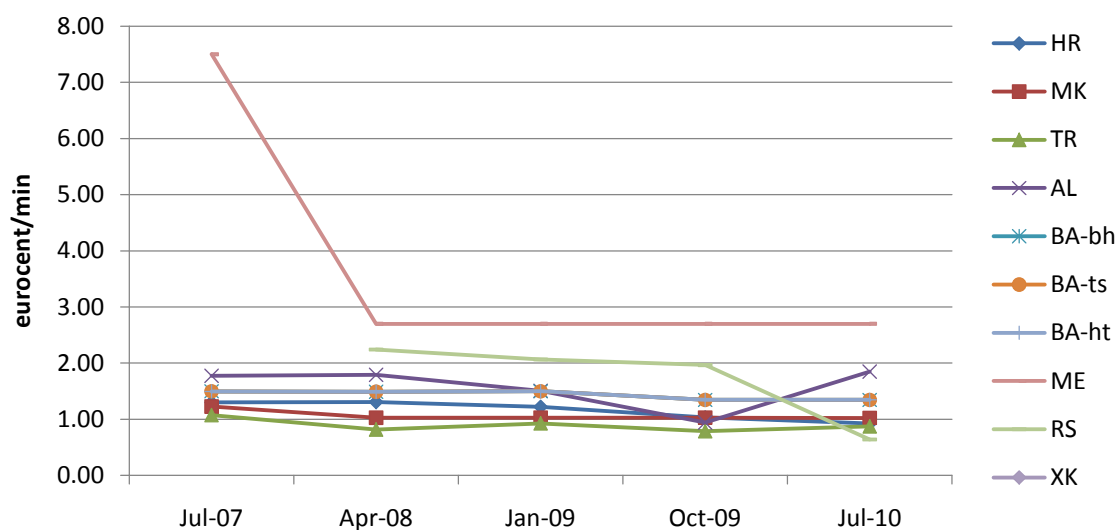


Figure 46 - Single transit call termination charges on the incumbent's fixed network, peak time

At the double transit level, rates remain considerably higher than EU-27 average in Albania, Bosnia & Herzegovina and in Croatia. Incumbents' double transit termination charges decreased from October 2009 in Serbia by 70%, in Turkey by 5.5% and in FYROM by 1%. A sharp increase was observed in Albania – by 106% and to a far lesser degree, in Croatia – by 3.7%.

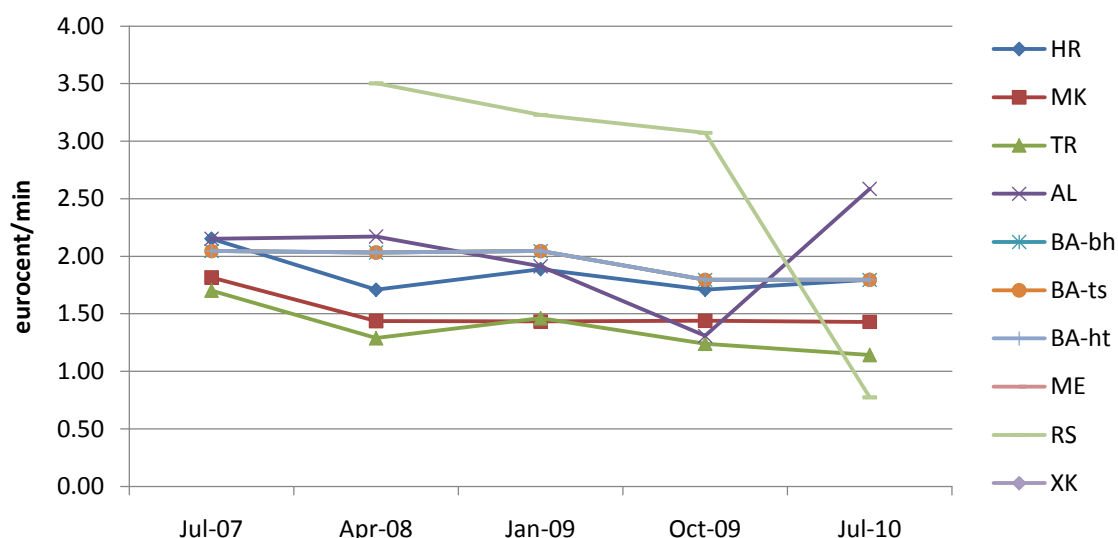


Figure 47 - Double transit call termination charges on the incumbent's fixed network, peak time

In general, fixed call termination charges in most of the monitored countries have remained relatively stable between 2006 and 2010. The major reductions, however, took place in FYROM, Bosnia & Herzegovina, Montenegro, and more recently in Serbia. Certain fluctuations in other countries can be explained to some extent by the exchange rate changes. The highest level of fixed call termination charges have been reported in Montenegro, and Kosovo.

Figure 48, Figure 49 and Figure 50 show call termination charges on the fixed networks of the incumbent and the major alternative operator in the monitored countries, in comparison with the EU-27 average values according to the 15th Implementation Report⁶⁹.

In Croatia, Albania and Bosnia & Herzegovina the alternative operators' fixed termination rates are set at the level slightly above the incumbent's single transit call termination. In Turkey and Montenegro asymmetries are more significant. Fixed to fixed call termination charges are reciprocal in Serbia and in Kosovo, where call termination is only offered at the local level. In FYROM, interconnection charges of alternative fixed network operators are confidential.

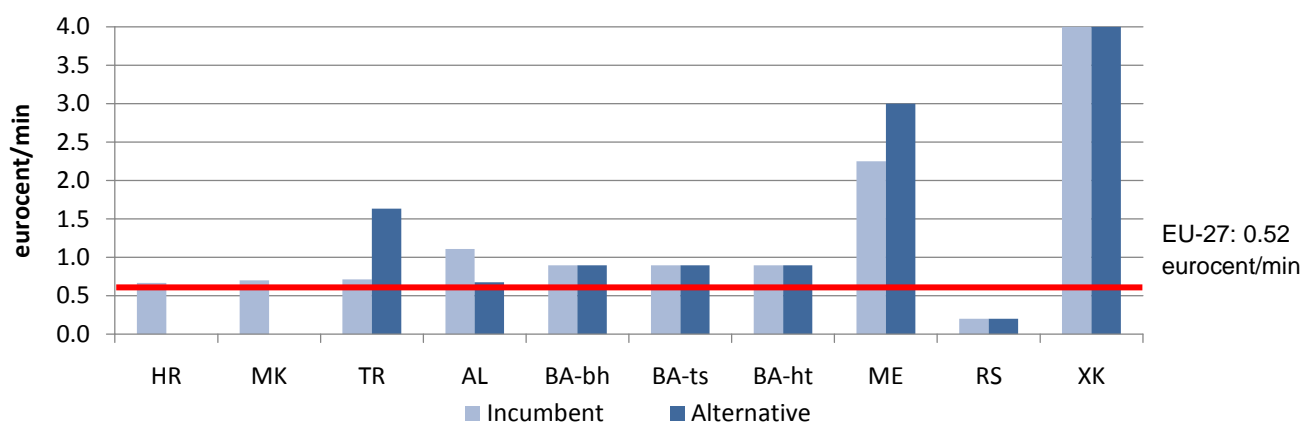


Figure 48 - Local call termination on the fixed incumbent and alternative network

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http://ec.europa.eu/information_society/policy/ecomm/doc/implementation_enforcement/annualreports/15threport/15report_part2.pdf

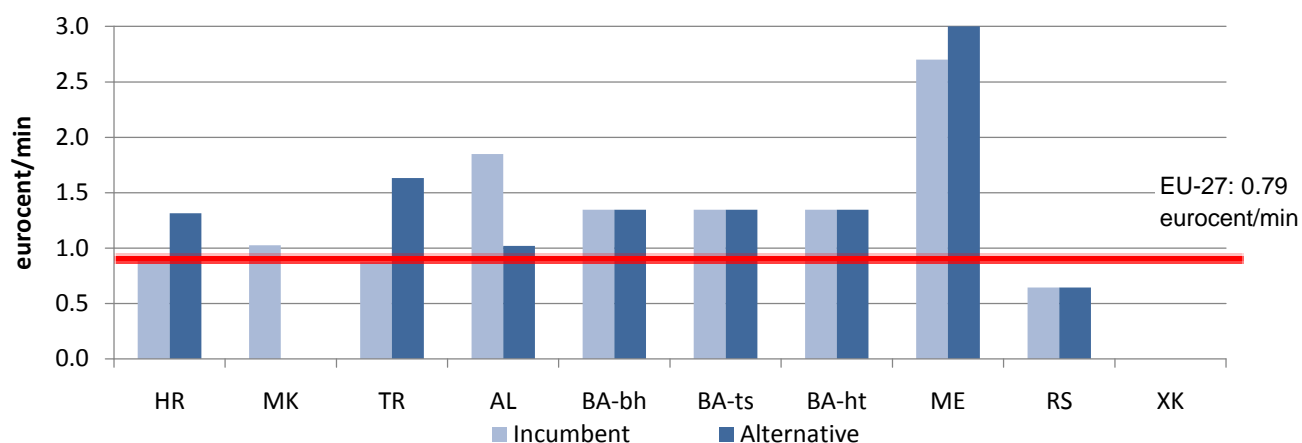


Figure 49 - Single transit call termination on the fixed incumbent and alternative network

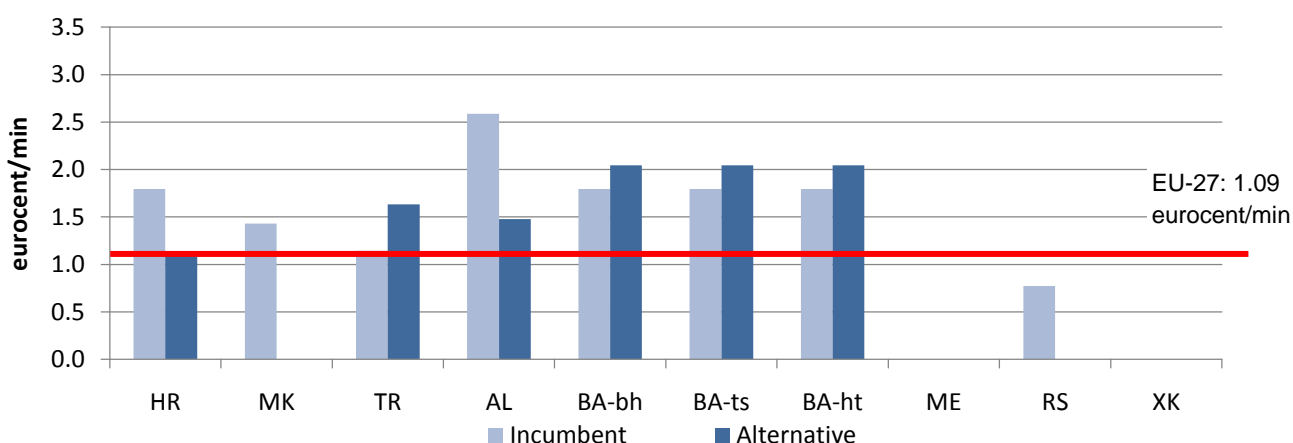


Figure 50 - Double transit call termination on the fixed incumbent and alternative network, July 2010

2. Call termination on mobile networks

Call termination charges on mobile networks in the monitored countries remain significantly higher than fixed network termination charges. At the same time, similar to the EU, mobile termination rates in these countries have been subject to substantial reductions over the last few years.

According to the 15th Implementation report, the weighted average EU-27 termination charges on mobile networks between 2005 and 2008 fell by 47%⁷⁰.

As of October 2009, the weighted average EU-27 mobile call termination charge was 6.71 eurocents per minute, which was a 18.4% decrease from October 2008.

Figure 51 illustrates the developments in mobile termination rates in the monitored countries between 2006 and 2010. Where there are several mobile operators in a country with different termination rates, the lowest rate is presented that usually corresponds to the largest mobile operator. In most of the countries, mobile operators apply the same termination charges regardless of whether the terminated call originates on a national fixed or mobile network. The exception is Kosovo where fixed to mobile termination rates are set at the level symmetrical with the fixed termination rates of the incumbent operator, while more than two times higher rates are applied to the termination of mobile to mobile calls. In Bosnia & Herzegovina, it appears that there is no direct interconnection between the mobile networks and all calls are terminated

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http://ec.europa.eu/information_society/policy/ecomm/doc/implementation_enforcement/annualreports/15threport/15report_part1.pdf

through the fixed networks. The differences between fixed to mobile and mobile to fixed termination rates are further addressed in Figure 52.

In most of the countries, mobile operators do not differentiate between peak and off-peak termination rates, with the exception of Kosovo where off-peak call termination rates are slightly lower. Albania is the only country where mobile operators apply call set up charges in addition to per minute conveyance charges.

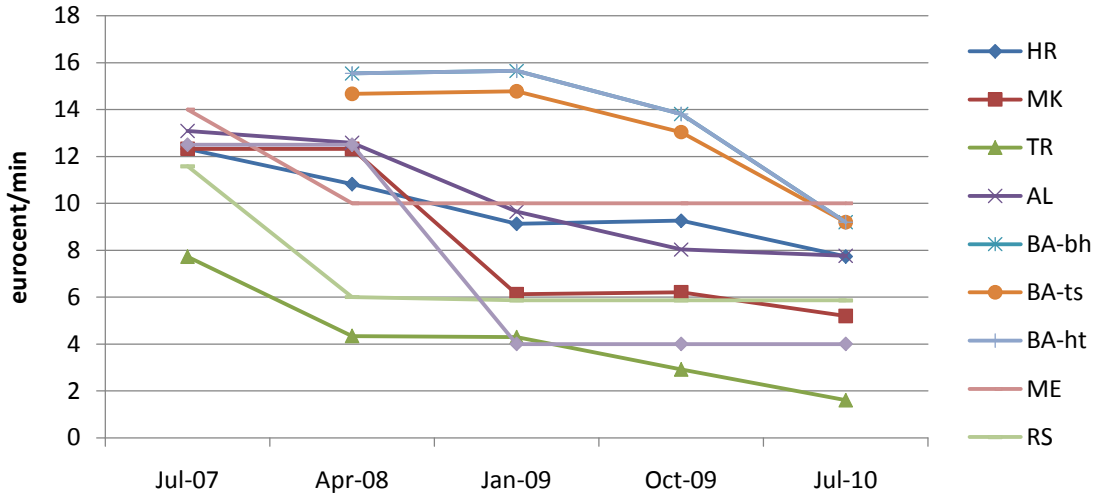


Figure 51 - Fixed to mobile termination rates, peak time

Since 2007, mobile termination rates decreased considerably in all countries, notably in Turkey (80%), Kosovo (68%) and FYROM (almost 60%). In January 2010, mobile operators in Croatia were required to cut their MTRs by over 15%. In Turkey a major cut in MTRs (by over 50%) was imposed by the regulator in April 2010, this followed another major 30% decrease already implemented in March 2009. Also in FYROM, a reduction in MTRs was implemented in July 2010.

The figure below shows the mobile termination rates of all mobile operators in the monitored countries as of July 2010. Mobile termination rates of all operators in Turkey and Serbia, as well as the two biggest operators in FYROM are set at the level below the EU average. In Croatia and Albania the rates of the biggest operators are only slightly above the EU average. At the same time, in Montenegro and Bosnia & Herzegovina fixed to mobile termination rates are significantly above the EU average level.

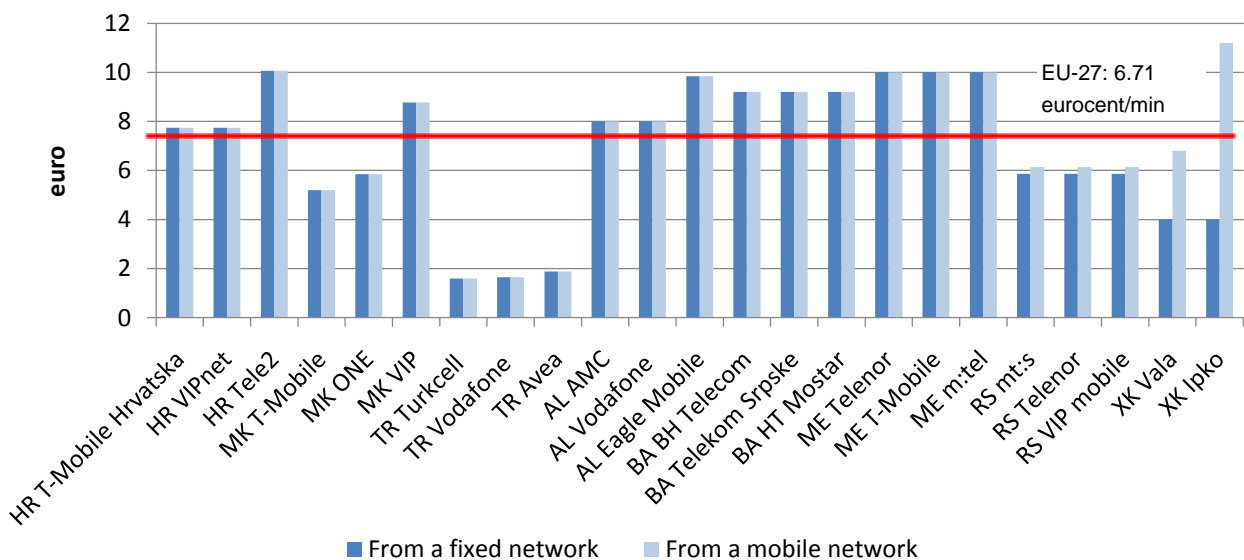


Figure 52 - Mobile termination rates, peak time, July 2010

3. Local loop unbundling charges

Local loop unbundling so far has been implemented only in four countries: Croatia, FYROM, Turkey, and, from January 2010, also in Bosnia & Herzegovina. In June 2010 the Serbian NRA issued a ruling on interconnection, LLU and infrastructure access conditions in a dispute between Telenor and Telekom Srbija, covering LLU charges. LLU access, however, is not yet operational pending the final agreement between the two operators. In Montenegro, the regulator imposed LLU access on the incumbent operator as part of remedies on the wholesale infrastructure access market, following the market analysis procedure completed in November 2010. In its decision, the regulator also set out the LLU monthly rental charges based on a benchmarking methodology.

Figure 53 and Figure 54 below compare the one-off connection charges and monthly rental prices for full and shared LLU access in the monitored countries and the EU-27 averages according to the 15th Implementation report.⁷¹ The connection charges in Croatia and Bosnia & Herzegovina are comparable to the EU average, while in Turkey and Serbia they have been set below the EU level. In July 2010, the LLU connection charges in Turkey were further reduced almost by half: from €34.70 to €17.98 for full access and from €37.76 to €19.56 for shared access.

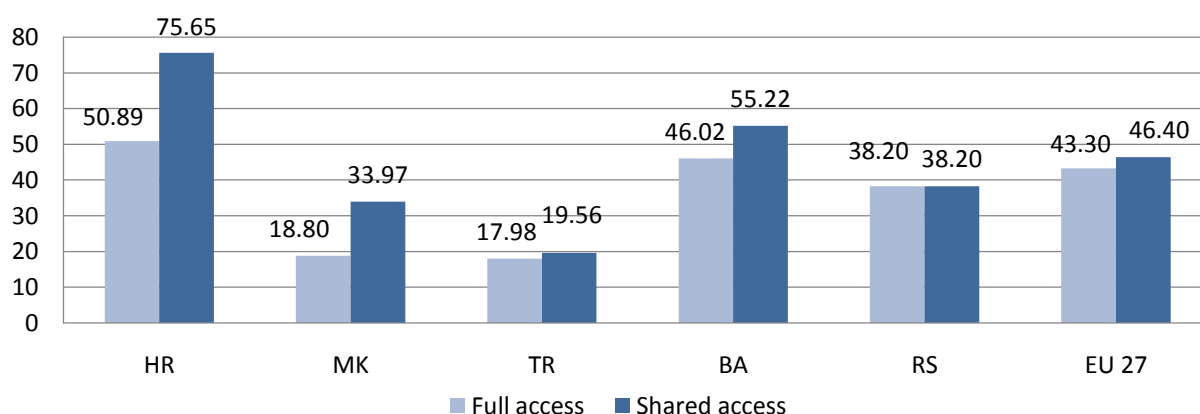


Figure 53 - Connection prices for fully unbundled loop and shared access, July 2010

Monthly rental charges in all four monitored countries, for both full and shared LLU access are set at the levels close to the EU average.

It should however be noted that, except for Croatia and Montenegro (and to a lesser extent FYROM), LLU monthly prices tend to be higher than line rental charges, a situation inevitably bound to affect competition and take up of LLU. In October 2010, shared access rental was further decreased in Croatia, to €2.47. A small reduction of LLU monthly rental charges, for both full and shared access, also took place in Turkey in July 2010.

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http://ec.europa.eu/information_society/policy/ecomms/doc/implementation_enforcement/annualreports/15threport/15report_part2.pdf

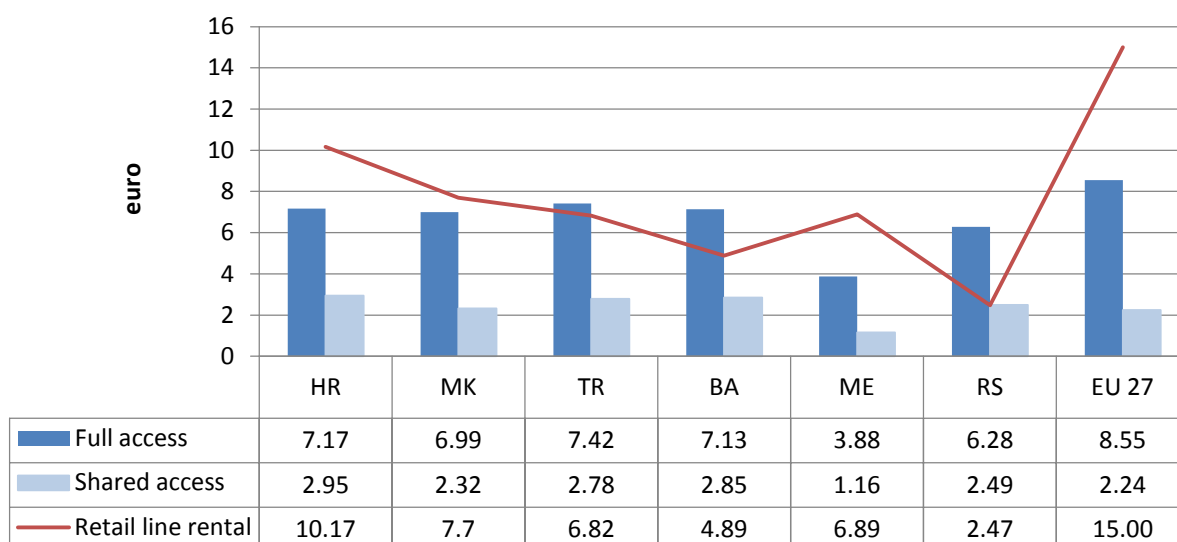


Figure 54 - Monthly rental prices for fully unbundled loop and shared access, July 2010

M. Information society legislation and policy

1. Information society legislation

All participating entities have been actively adopting information society legislation and most of the laws adopted during the last years are based on the relevant EU Directives.

The following table provides an overview on the relevant legislation. It shows only the year of the original version of the law, not the later amendments. Detailed information, links and official gazette numbers can be found in the annex. The table in the annex also contains references to laws not covered in this study, such as the competition law, audio-visual media legislation and the data protection law.

	HR	MK	TR	AL	BA	ME	RS	XK
Electronic communications law	2008	2005	2008	2008	2003	2008	2010	2002
Based on EU 2003 regulatory framework?	✓	✓	✓	✓	✗	✓	✓	✗
Plans to implement EU 2009 regulatory framework?	✓	✗	✗	✓	✗	✓	✗	✓
Electronic commerce law	2003	2007	✗	2009	2007	2004	2009	2002
Electronic signature law	2002	2001	2004	2008	2006	2003	2004	2002
Cybercrime legislation	✓	✓	✓	✓	✗	✓	✓	✓
Electronic document law or E-government law	2005	2001, 2009	second. legis-lation	2010	–	2008	2009	2002

Table 16 - Information society legislation

The most important part of the *acquis* is the regulatory framework for electronic communications. Six countries have adopted laws which are based on the EU 2003 regulatory framework. In Serbia the new Law on electronic communications came into force in August 2010. Kosovo is drafting a law that will

introduce provisions of the EU 2003 and 2009 regulatory frameworks. Government approval is expected before the end of 2010 and adoption by parliament expected in 2011.

Bosnia & Herzegovina has not made progress in drafting an electronic communications law. The existing Law on communications is still based on the EU 1998 regulatory framework. Bosnia & Herzegovina now plans for 2011 to start working on a law implementing the EU 2003 and 2009 regulatory frameworks.

Audio-visual media regulation is not included in the scope of this study, but references to the relevant legislation can be found in the annex. Montenegro adopted a new Law on electronic media in July 2010, which is largely aligned with the Audiovisual Media Services Directive. The other countries have not yet transposed the directive.

All countries except Turkey implemented the Electronic Commerce Directive 2000/31/EC. Turkey is preparing a draft transposing the Directive. The Turkish Law no. 5651 addresses some of the topics regulated in the Directive, but is not aligned with it. Montenegro adopted amendments to its electronic commerce law.

All countries have adopted an electronic signature law based on Directive 1999/93/EC. Montenegro also adopted amendments to its electronic signature law.

Cybercrime legislation is usually not covered by a separate law, but by provisions in the Criminal Code. The table above therefore does not show the date of the law, but whether the national legislation is more or less aligned with the Convention on Cybercrime (for details see Table 19 below). Kosovo adopted a Law on prevention and fight of the cyber crime in order to align its legislation with the Convention.

There is no requirement from the *acquis* to adopt laws on electronic documents or electronic government, but most countries adopted such laws. Turkey has secondary legislation on electronic documents standards. Albania adopted a law on electronic documents in April 2010.

In most of the monitored countries the legislation is structured in similar way: The country has an electronic communications law, an electronic commerce law, an electronic signature law, and various laws on broadcasting/media/electronic media (usually separate for the public service broadcaster and other media). Some noteworthy exceptions:

- In Turkey both primary and secondary legislation is complex. Electronic communications regulation has been addressed by various laws and the new Law no. 5809 on electronic communications has not entirely replaced those previous laws. In particular Law no. 406 on telegrams and telephones (enacted in 1924) and the Wireless Law no. 2813 (enacted in 1983) are still in force, although most of their articles have been either repealed or replaced by new text during the last years. Law no. 406 is now mostly about the incumbent's legal status, but also the legal basis of a telecommunications tax. The Wireless Law no. 2813 received a new title and is now called Law no. 2813 on the Establishment of the Information Technologies and Communications Authority.
- Croatia has abundant secondary legislation and uses to replace the full set of secondary legislation when a new primary law comes into force. In particular, Croatia reported 23 ordinances on electronic communications regulation, 21 of which were adopted after the new law came into force in 2008.
- In Kosovo most of the information society legislation was adopted in 2002 as a single law, the Law on the information society services. This law includes laws on electronic commerce, distance contracts, electronic invoicing, electronic payment, data protection, electronic signatures and protection of information systems. Telecommunications and broadcasting regulation are addressed by two separate laws, adopted in 2002 and 2003, respectively.
- Bosnia & Herzegovina has laws both at state level and at entity level, in particular both the state and the Republika Srpska have laws on electronic commerce and electronic signature.

2. Ongoing legislative work

Transposing the EU *acquis* into national legislation is not a one-time effort, but also requires continuous monitoring of new legislation at the EU level and assessing what needs to be changed in the national legislation.

The participating countries show significant differences with respect to the question whether their responsible ministries are actively pursuing this task.

The questionnaire for this report included for the first time a table asking for ongoing legislative work. Although the EU 2009 regulatory framework was adopted almost a year ago and is certainly the most important piece of EU legislation for the ministries responsible for information society issues, several countries have not developed a plan on how to transpose the new framework.

In some countries legislative work depends on support by international experts, for example in projects funded by the EU or the EBRD.

The differences between participating countries can be summarised as follows:

- Croatia is the most advanced among the monitored countries. It has not only brought its legislation in line with the information society *acquis*, but also actively working on implementing the EU 2009 regulatory framework. The ministry established a working group to draft the necessary amendments and expects adoption before the deadline for the EU member states in May 2011.
- Kosovo lagged behind and still has a law on telecommunications that is not based on the EU 2003 regulatory framework. However, Kosovo is now drafting a new law that will implement both the EU 2003 and 2009 regulatory frameworks and could also be adopted in the first half of 2011. Kosovo has also shown legislative activity by adopting new laws on data protection and cyber crime.
- Although Turkey is actively adopting new laws, the legislation is complex and difficult to read (see above). Newly adopted legislation is not always based on the EU *acquis*. For example, the issue of internet service providers' liability for transmitted content is regulated at the EU level in the e-Commerce Directive since the year 2000.⁷² Turkey's law no. 5651, adopted in 2007, also addresses ISP liability, but followed a different systematic approach. Works on adopting a Turkish law on e-commerce developed slowly and the Turkish authorities now expect adoption by parliament in spring 2011. Turkey does not yet have specific plans for transposing the EU 2009 regulatory framework.
- Montenegro has adopted several new laws in mid-2010 and started preparations for transposing the EU 2009 regulatory framework, albeit without having a concrete time schedule yet.
- Serbia has recently adopted its new law on electronic communications, which transposes the EU 2003 legislative framework. Serbia has not yet started to work on transposing the EU 2009 regulatory framework, although a few bits (like porting numbers within one day) have already been included in the new law.
- The FYROM has recently adopted data retention legislation and is preparing legislation to amend the law on electronic commerce. However, FYROM does not have specific plans yet for transposing the EU 2009 regulatory framework.
- In Albania, competencies for information society legislation at ministry level have changed in late 2009. The Minister for Innovation and ICT (MITIK) is now responsible for electronic communications legislation, whereas audio-visual media legislation is drafted by the parliament. The legislative work largely depends on external experts. Amendments to transpose the bigger part of the EU 2009 regulatory framework have been prepared with the support of an EBRD/EU funded project and were published for consultation in May 2010. Albania is also working on laws on audio-visual media, data retention and rights of way.
- Bosnia & Herzegovina is lagging behind. It is now, besides Kosovo, the only country in the region with a law not based on the EU 2003 regulatory framework. There is no concrete project or time schedule for transposing the EU 2003 and 2009 regulatory frameworks, but work will start in 2011. Bosnia & Herzegovina also does not have legislation on cyber crime, electronic documents or e-government at state level. A law on creating an agency for the information society at state level has been blocked in parliament. At entity level, the Republika Srpska has laws on electronic documents, electronic commerce, electronic signature and some cyber crime provisions in its criminal code. The legislative process is certainly hampered by the constitutional difficulties and the unclear distribution of legislative competencies between the state and the entities. However, it also does not seem that the ministry is taking a sufficiently active role in preparing new legislation at state level.

⁷² See articles 12 to 15 of 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').

3. Information society policy

Each of the participating countries has a high-level responsible body for information society policy. This is usually a ministry. In Croatia policy-making is the responsibility of the Central State Administrative Office for e-Croatia (which is lead by a State Secretary), the Ministry of Sea, Transport and Infrastructure (broadband, digital switchover) and the Ministry of Economy, Labour and Entrepreneurship (electronic business strategy). In Turkey, the State Planning Organization in the Prime Ministry is responsible for policy-making across all sectors.

The questionnaire for this report asked whether countries have an information society policy or strategy document in general, as well as policies for specific topics. The full title and links to the respective documents can be found in Table O.3 of the annex.

As the following table shows, each country has a strategy document for information society in general, and also separate documents for most or all topics covered by this report:

	HR	MK	TR	AL	BA	ME	RS	XK
Information society in general	✓	✓	✓	✓	✓	✓	✓	✓
Electronic communications	✓	✓	✓	✓	✗	✓	✓	(✓)
Broadband	✓	✓	✓	✓	✗	✗	✓	(✓)
Digital TV	✓	✓	(✓)	(✓)	✓	✗	✓	✗
eSEE Initiative (eg government adoption of the eSEE Agenda+)	✓	✗	✗	✓	✓	✓	✓	✓
E-Government	✓	✓	✓	✓	✗	✓	✓	✓
E-Business	✓	✗	✓	✓	✗	✓	✓	✗
✓ is covered by a policy document, (✓) policy being drafted, ✗ is not explicitly covered by a policy document								

Table 17 - Information society policy documents

During this reporting period, the Albanian Council of Ministers has adopted the new policy paper on electronic communications in May 2010. Under the Albanian law this document is part of the secondary legislation and therefore binding. The Serbian government adopted in July 2010 a new strategy for the development of the information society, and in September 2010 a new strategy on electronic communications. Both documents cover the time until 2020.

In Kosovo, a sector strategy covering electronic communications and broadband has been prepared for government approval. Albania expects adoption of a strategy for digital switchover.

The Croatian ministry is currently consulting on a new version of its broadband strategy of 2006 and Turkey is preparing a new version of its comprehensive information society strategy and action plan (the current version covers the years 2006 to 2010).

N. Fundamental rights and freedoms

The review of the EU 2003 regulatory framework raised a new discussion on fundamental rights and freedoms in the information society.

Issues which have been controversial in several EU member states include the following:

- Laws or proposed bills that would restrict certain end-users right to access the internet, in particular end-users who repeatedly infringed copyright laws (three strikes laws).

An example for this discussion is the French Hadopi law.⁷³

According to the new article 1 para. 3a of the Framework Directive, the procedure before blocking a person is not necessarily to be taken by a judge, but it must be fair and impartial and must include the right to be heard of the persons concerned (except in urgent cases). After the decision, the right to effective and timely judicial review shall be guaranteed.

- Laws or proposed bills that would restrict end-users right to access certain websites, in particular if these websites contain illegal content.

Examples for this discussion are the German law⁷⁴ on combating child porn in communications networks and laws on blacklisting paedophile content or unauthorised gambling websites in Italy⁷⁵. On March 29, 2010 the European Commission proposed introducing at EU level a provision on blocking access to child porn.⁷⁶

None of the monitored countries has implemented a law or mechanism to block certain end-users' access to the internet. Turkey is the only country of the region which has a law on blocking access to certain websites (see below).

1. Constitutional rights

All monitored countries have constitutional guarantees for the freedom of expression and the right to respect for private and family life.

However, there is not much case law of the constitutional courts. In FYROM and Serbia, constitutional complaints against newly introduced data retention provisions are pending. A judgment of the Serbian Constitutional Court also repealed a provision in the former Law on telecommunications, which allowed interception not only under court orders but also under other (unspecified) laws (case IUz 149/2008).

2. Mechanisms to restrict the freedom of expression and information

Turkish Law no. 5651⁷⁷, which was enacted on May 4, 2007, is the only law in the monitored countries, which foresees a mechanism to block access to certain websites.

The law contains a catalogue of eight different crimes: provocation for committing suicide, sexual exploitation of children, facilitating the use of narcotics or psychotropic substances, procurement of hazardous material for health, prostitution, pornography, providing a place and possibilities for gambling and crimes against the Atatürk-Law no. 5816.

If there is reasonable suspicion of content which constitutes one of the crimes listed in this catalogue, a decision to block access can be adopted by a judge during the prosecution or by a court during the trial. In urgent cases, a public prosecutor can also decide to block access for 24 hours, pending approval by a judge.

Separately, the Telecommunication Communication Presidency, which is part of the regulator ICTA, can ex officio block the access to a certain web site as an administrative precaution.

The law does not contain a mechanism that would ensure proportionality of the blocking orders. In particular, popular video portals such as YouTube⁷⁸, Geocities, DailyMotion and Google have been blocked in Turkey, because singular videos were found as infringing the law. The law does not require the

⁷³ Loi n° 2009-669 du 12 juin 2009 favorisant la diffusion et la protection de la création sur internet – Law no. 2009-669 on the protection of creation on the internet, <http://www.assemblee-nationale.fr/13/dossiers/internet.asp>. The law established a new authority, called Hadopi, which may suspend users' internet connections after sending two warnings.

⁷⁴ Gesetz zur Bekämpfung der Kinderpornographie in Kommunikationsnetzen, BGBl 2010 I S. 78, <http://www.bgbl.de/>. The law was adopted by parliament before the 2009 general elections and came into force in February 2010, but the new government does not intend to implement it. The law would have obliged access providers to block access to certain websites based on a list managed by the police

⁷⁵ Law 38/2006, <http://www.camera.it/parlam/leggi/06038l.htm> and Legge Finanziaria 2007, <http://www.parlamento.it/parlam/leggi/06296l.htm>

⁷⁶ Art. 21 of the Proposal for a Directive of the European Parliament and of the Council on combating the sexual abuse, sexual exploitation of children and child pornography, repealing Framework Decision 2004/68/JHA, COM(2010) 94 final

⁷⁷ Law no. 5651, dated May 4, 2007, on regulation of publications on the internet and combating crimes committed by means of such publications

⁷⁸ With regard to YouTube, a court in Ankara [decided](#) on October 30, 2010 to stop blocking the site, after YouTube removed some contested videos. However, only a few days later a court ordered a new ban, based on other videos considered as infringing the law.

decision-making bodies to weigh the interest in blocking a certain video against the interest of innocent users to upload or download the vast number of legal videos on such websites.

According to the OSCE⁷⁹, access to approximately 5,000 websites has been blocked until June 2010. In January 2010, OSCE criticised that at least 197 court blocking orders were issued outside the scope of the law and that the Telecommunication Communication Presidency stopped publishing details about its administrative blocking decisions in May 2009.

According to the European Commission's last progress report, the *"frequent website bans ... are disproportionate in scope and duration"*. Mainstream web portals have been banned for several years. *"Law n°5651 on the internet limits freedom of expression and restricts citizens' right to access information."*⁸⁰

Turkey is preparing a law to transpose the E-Commerce Directive and expects adoption of this law in March or April 2011. There are significant differences between the provisions on internet service providers' liability in Law no. 5651 and in the E-Commerce Directive. It is not known yet, whether or to what extent Law no. 5651 would be amended or replaced in the course of transposing the directive.

O. Information society statistics

A Council Resolution⁸¹ of 2003 and a Regulation⁸² 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 later in the eEurope action plan of 2002. The collected data are published regularly by Eurostat.⁸³ The eEurope benchmarking is being further developed under the i2010 benchmarking framework⁸⁴, currently as adopted by the i2010 High Level Group in April 2006, and in future following the i2010 benchmarking framework for 2011 to 2015. Commission Regulations adjust the legal framework annually.⁸⁵

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 collect data in information society surveys and their statistics are also integrated with Eurostat⁸⁶ data and publications. There is significant progress in these four countries, as the surveys are on annual basis and comprehensive.

The national statistics institutes in Albania and Montenegro have started to collect information society statistics in 2010, but have not published results yet. Montenegro considers the current survey as a pilot and will start regular research based on Eurostat methodology in 2011.

In Kosovo, the Statistical Office and the Telecommunications Regulatory Authority would be responsible for information society statistics, but there are no concrete plans yet to integrate statistics with Eurostat methodology.

Bosnia & Herzegovina is the only monitored country where the responsible body for information society statistics has not been defined yet. It has been planned for years to establish an Agency for Development of the Information Society (ARID), but the relevant law has not yet been adopted and a new draft is under preparation. According to the current plans, ARID would be responsible for information society statistics, although the statistical institutes would be in charge for data collection.

⁷⁹ Organization for Security and Co-operation in Europe, Report of the OSCE Representative on Freedom of the Media on Turkey and Internet Censorship, January 2010, http://www.osce.org/documents/rfm/2010/01/42294_en.pdf, see also the press release of June 22, 2010, http://www.osce.org/fom/item_1_44754.html.

⁸⁰ Turkey 2010 Progress Report, SEC(2010)1327, page 18. See also the answer given by the European Commission to written questions E-6023/08 and E-6068/08 of members of the European Parliament, <http://www.europarl.europa.eu/sides/getAllAnswers.do?reference=E-2008-6023&language=EN>

⁸¹ Council Resolution of February 18, 2003 on the implementation of the eEurope 2005 Action Plan, 2003/C 48/02

⁸² Regulation (EC) No 808/2004 of the European Parliament and the Council of April 21, 2004 concerning Community statistics on the information society; amended by Regulation (EC) No 1006/2009

⁸³ See the Information society statistics, a sub-category of the theme Industry, Trade and Services: http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/introduction

⁸⁴ http://ec.europa.eu/information_society/eeurope/i2010/benchmarking/index_en.htm

⁸⁵ See Commission Regulations (EC) No 1099/2005, 1031/2006, 847/2007, 960/2008, 1023/2009 and 821/2010.

⁸⁶ <http://epp.eurostat.ec.europa.eu/>

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.

The scope and quality of available data has significantly increased during the last years. In four countries the statistical institutes publish regularly comprehensive surveys:

- The Croatian Central Bureau of Statistics conducts annual surveys on usage of ICT in households, by individuals and in enterprises. A pilot survey on ICT expenditures and investments in enterprises has been initiated and will deliver first results in 2011.
- In FYROM, the State Statistical Office collects data on the usage of ICT in households and by individuals, in enterprises, in the financial sector and in the public sector.
- The Turkish Statistical Institute (TURKSTAT) publishes statistics on computer and internet usage in households, by gender and age group, by education level and by labour force status, also separately for rural and urban areas. TURKSTAT's statistics on computer usage and internet access in enterprises are grouped by economic activity and size of the company, data on the type of internet connection, on the purpose of internet usage and the proportion of enterprises which have a website. With regard to the indicators covered by this study, Turkey could deliver data from 2007, 2008, 2009 and 2010⁸⁷.
- The Statistical Office of Serbia publishes an annual report on ICT usage by households and individuals and by enterprises, with a similar level of detail as provided by TURKSTAT. In addition, the regulator RATEL produces annual statistics on telecommunications markets and broadband.

The quality of data delivered by the other four participating entities remains unsatisfactory. Albania, Bosnia & Herzegovina and Kosovo delivered estimates based on various sources, which are obviously difficult to compare with the data of the statistical institutes of the above mentioned countries. In Montenegro only surveys of private institutes from 2007 (ICT usage by enterprises, ISSP ICT Survey) and 2008 (ICT usage by individuals, CEMI) are available. These surveys can to some extent be compared with the data collected by statistical institutes, but are out of date.

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.

The eSEEurope Initiative collected data on broadband penetration, e-government services, and computers and internet access in schools.⁸⁸

3. Computer and internet usage by individuals

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

⁸⁷ For 2010 only data on computer and internet usage was published before the cut-off date of this report. Computer and internet usage of enterprises was announced to be [published](#) on November 24, 2010.

⁸⁸ <http://www.eseeinitiative.org/>

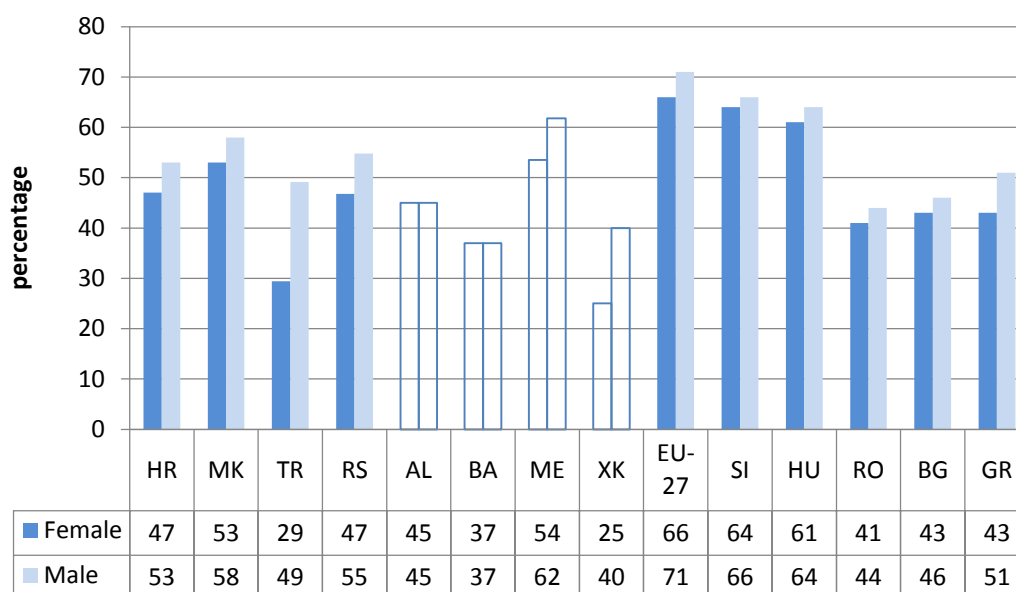


Figure 55 - Percentage of individuals regularly using computers

Turkey and Serbia reported new data from surveys conducted by the respective statistics institutes in early 2010. Data for Albania, Bosnia & Herzegovina, Montenegro and Kosovo is shown in a different colour, as the methodology is not comparable with other countries. The data shown for Montenegro is based on research of the Centre for Monitoring (CEMI) in 2008, which cannot be directly compared to the data from other countries. Albania delivered new estimates for 2010, based on different sources.

Similarly as in the three previous reports the data shows that computer usage in Croatia, FYROM and Serbia is above other countries of the region – including EU members Romania, Bulgaria and Greece –, but below the EU-27 average.

Obvious gaps between male and female computer usage exist in Turkey (20%) and Kosovo (15%). This gap is less obvious in other countries, but in all four countries where the data is based on surveys of the statistics institutes the difference between male and female usage is at least as big as in the EU-27 average. The estimates in Albania and Bosnia & Herzegovina do not differentiate by gender.

The following figure shows internet usage by individuals. The data stems from the same sources as mentioned above. Data for Turkey and Serbia is based on surveys of 2010, Croatia and FYROM reported surveys from 2009. Montenegrin data is from 2008. Albania, Bosnia & Herzegovina and Kosovo delivered estimates. For comparison, the figure also shows Eurostat data on the EU-27 average and other countries in the region.

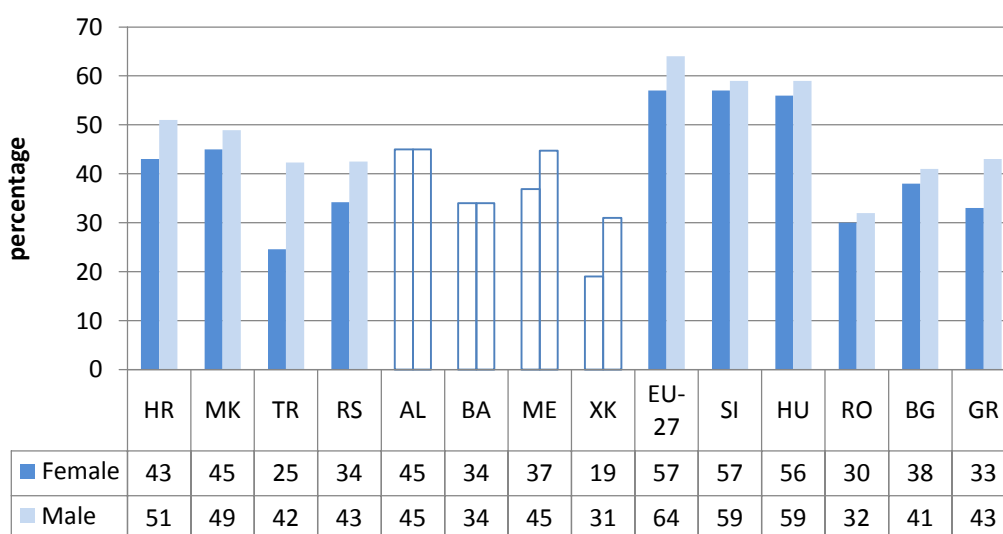


Figure 56 - Individuals regularly using the internet

All monitored countries, where data are available, show significantly lower internet usage than the EU-27 average. In Croatia and FYROM the internet usage is above countries like Romania, Bulgaria and Greece. Serbia has similar values as those EU member states. In comparison with 2008 most countries reported an increase by some percent.

The gap between male and female internet usage remains obvious in Turkey (18%) and Kosovo (12%), This gap is less obvious in the newer data reported by Croatia and Serbia, and FYROM shows a smaller gender gap than the EU-27 average. The estimates in Albania and Bosnia & Herzegovina do not differentiate by gender.

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).

In four countries the national statistics institutes conduct surveys on computer and internet usage by enterprises: Serbia delivered data from a survey conducted in May/June 2010. The statistics delivered by Croatia, FYROM and Turkey are based on surveys conducted in 2009. Kosovo reported data from a survey of the Riinvest Institute in April 2008.

No comparable data is available from Albania and Bosnia & Herzegovina. The available data for Montenegro is not grouped by enterprise size and therefore not shown in the figures. Albania and Montenegro are currently collecting data.

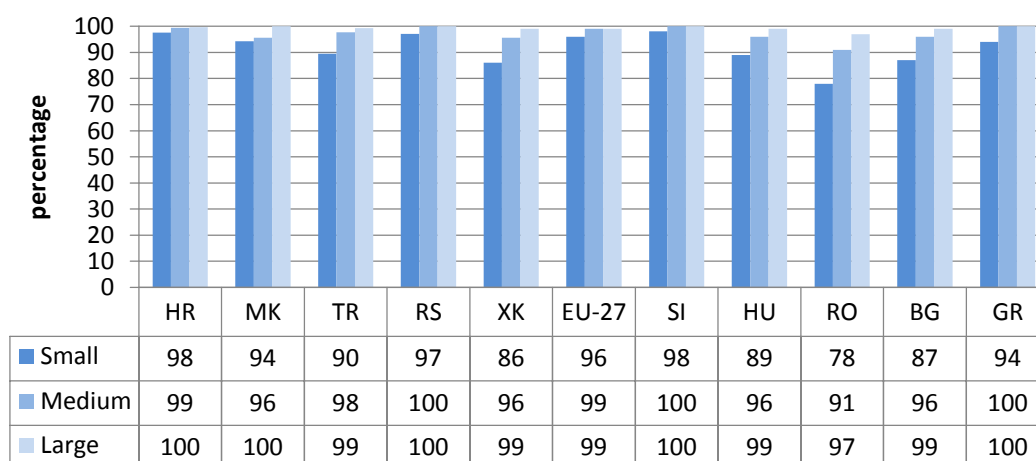


Figure 57 - Enterprises using computers

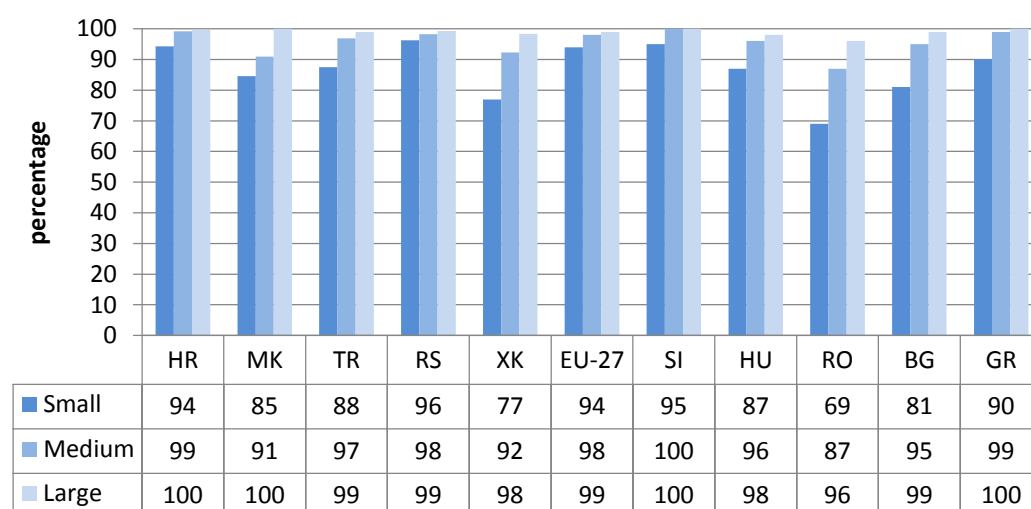


Figure 58 - Enterprises having access to the internet

Almost all medium and large enterprises use computers and have access to the internet. Significant differences are only visible with regard to small enterprises with 10 to 49 employees.

The following table shows how small enterprises' usage of computers and the internet has increased since our first report.

Country and data of surveys	Small enterprises using computers			Small enterprises having internet access		
	first report	this report	increase	first report	this report	increase
Croatia (2007–2009)	96	98	+2	92	94	+2
FYROM (2007–2009)	88.6	94.2	+5.6	70.1	84.6	+14.5
Turkey (2005–2009)	86.1	89.5	+3.4	78.0	87.5	+9.5
Serbia (2007–2010)	90 (Eurostat) 96.7 (Serbia)	97.1		86 (Eurostat) 89.7 (Serbia)	96.3	

Table 18 - Small enterprises using computers and having internet access (in percent)

In all four countries there is now only a small gap between computer usage and having access to the internet. The number of small enterprises that are not using computers or the internet has decreased most strongly in FYROM. With regard to Serbia, our first report showed significant differences between the data reported by the Serbian authorities and the data published by Eurostat.

Enterprises' usage of computers and the internet in Croatia and Serbia is comparable with the EU-27 average for small, medium and large enterprises. In Turkey, medium and large enterprises have similar computer and internet access as in the EU, but small enterprises have significantly lower usage. In FYROM, computer usage is only slightly lower than in the EU, but internet usage is significantly lower not only for small but also for medium enterprises.

P. Network and information security

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

- The regulatory framework on electronic communications requires providers of public communications networks and publicly available electronic communications services to safeguard network security (articles 13a and 13b Framework Directive) and the security of processing personal data (article 4 e-Privacy Directive). The e-Privacy Directive also deals with specific questions such as spam and cookies.
- Computer crime has been identified as an area of serious crime with a cross-border dimension that needs combat on a common basis (article 83 TFEU). The Council adopted a framework decision⁸⁹ which echoes the Council of Europe Convention on Cybercrime and some other initiatives more specifically aimed at protecting minors. The Commission submitted proposals to replace these framework decisions by directives.⁹⁰
- The European Network and Information Security Agency (ENISA) is established⁹¹ as an institutionalised means of cooperation between member states. Its 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.
- The Commission proposed⁹² an action plan on Critical Information Infrastructure Protection (CIIP) to protect Europe from large scale cyber-attacks and disruptions and enhance preparedness, security and resilience. The action plan calls, for example, for establishing Computer Emergency Response Teams (CERTs) in all member states and for a European Information Sharing and Alert System.

⁸⁹ Council Framework Decision [2005/222/JHA](#) of February 24, 2005 on attacks against information systems.

⁹⁰ On March 29, 2010 the Commission adopted a [Proposal](#) for a Directive of the European Parliament and of the Council on combating the sexual abuse, sexual exploitation of children and child pornography, repealing Framework Decision 2004/68/JHA, COM(2010) 94 final, and on September 30, 2010 a [Proposal](#) for a Directive of the European Parliament and of the Council on attacks against information systems and repealing Council Framework Decision 2005/222/JHA, COM(2010) 517 final.

⁹¹ ENISA was established by Regulation (EC) [460/2004](#) and its mandate was extended by Regulation (EC) [1007/2008](#).

⁹² Commission Communication of March 30, 2009, [COM\(2009\)149 final](#).

The EU 2009 regulatory framework significantly enhanced the competent national authorities' role in network security. The new articles 13a and 13b of the Framework Directive oblige operators to take appropriate measures to secure their networks and ensure the continuity of supply of services. Security breaches must be notified to the NRA, which has to report annually to ENISA. The NRA may submit operators to a security audit.

Amendments to article 4 of the e-Privacy Directive enhance the protection of personal data and the role of the relevant national authorities (which are not necessarily identical with the NRAs). National authorities shall be able to audit the security measures taken by service providers. Providers will be obliged to notify the authority and affected subscribers or individuals in case of a personal data breach.

1. Network security obligations for providers of communications services

The new articles 13a and 13b of the Framework Directive oblige operators to secure their networks and to ensure continuity of supply of service.

All participating countries have a provision in their laws (Turkey in secondary legislation), which require operators to undertake such network security measures.

However, all those provisions have been drafted before the EU 2009 regulatory framework and are therefore less detailed.

Most countries use a wording that requires “*appropriate*” technical and organisational measures, sometimes also referring to the expected risks or allowing the operators to weigh the risks against the costs of security measures.

In Turkey, on July 20, 2008 a new bylaw on security of electronic communications 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 bylaw 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.⁹³ Another example is Iceland.⁹⁴ Turkey also has a bylaw on personal information processing which includes the typical unspecific obligation and has not been repealed by the new bylaw. In particular, the existing bylaw applies to those providers of telecommunications services for profit, which are not equity companies and therefore not within the scope of the new bylaw.

Security audits based on international standards will in future be a more frequent measure to enforce security and integrity of networks and services. According to the new article 13b of the Framework Directive (as amended by Directive 2009/140/EC), member states shall ensure that NRAs can oblige undertakings to submit to a security audit by an independent body.

Besides Turkey, Serbia and the Kosovo also have provisions in their laws that allow the NRA to audit operators' security measures. In other countries there is no explicit provision on such audits, although it might be possible that the NRA uses some general supervision powers from the law.

Article 13a of the Framework Directive requires operators to notify the NRA in case of significant security breaches. Such provisions can already be found in the laws of Turkey, Bosnia & Herzegovina, Montenegro and Serbia.

⁹³ 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.

⁹⁴ Regulation on the functionality of public communications networks, December 10, 2007, <http://www.pfs.is/file.aspx?id=1872>

2. Security of processing personal data

According to article 4 of the amended e-Privacy Directive (2002/58/EC), all providers of publicly available electronic communications services must take “*appropriate technical and organisational measures*” to safeguard security of their services. This is a general provision which does not prescribe specific security measures, but refers to the “*state of the art*”, the costs of implementation and a level of security “*appropriate to the risk presented*”.

Directive 2009/136/EC introduced significant amendments. In the case of a personal data breach providers will in future be obliged to notify the breach to the competent national authority. If the personal data breach is likely to adversely affect the personal data or privacy of subscribers or individuals, the provider shall also inform the subscribers and individuals affected. These amendments came into force in December 2009 and member states will have to transpose them in national law by May 2011.

All monitored countries have transposed article 4 of the e-Privacy Directive (in its original version) into their national legislation, where it can typically be found in the Telecommunications Law or the Electronic Communications Law. These obligations always apply to operators who offer their services “to the public”, although the detailed definition of the scope of providers covered by the legislation varies.

With two exceptions, the body responsible for supervision in all monitored countries is the NRA, rather than the data protection authority. In Serbia, the data protection commissioner is responsible for supervision. In FYROM, the NRA is only responsible for technical measures, but data protection for consumers is within the responsibility of the Directorate for personal data protection.

Most countries have transposed the provision in the general form of the e-Privacy Directive, i.e. they require “appropriate” measures without specifying details. In Kosovo the new Law on the protection on personal data is more specific and suggests encrypting personal data before transmitting them over telecommunications networks.

The amended directive contains very detailed provisions on notifying the affected subscribers and/or the responsible authority in case of personal data breaches:

- In Serbia, operators must notify personal data breaches to the data protection authority, and, under conditions, also to the subscribers and individuals affected by the breach.
- in Croatia and Turkey operators must inform the affected subscribers, but there is no explicit obligation to notify personal data breaches to an authority.
- In Montenegro personal data breaches must be notified to the NRA, but there is no explicit obligation to inform affected subscribers.
- In FYROM, Albania, Bosnia & Herzegovina and Kosovo there is no explicit obligation to notify, neither an authority nor affected subscribers.

The amended directive also requires Member States to entitle competent authorities to audit operators’ security measures.

- In Turkey, a bylaw requests operators to submit their technical and organisational security measures to the NRA for approval.
- In FYROM, Serbia and Kosovo the data protection authority is entitled to audit security measures.
- In Croatia, Albania, Bosnia & Herzegovina and Montenegro there is no explicit provision allowing a national authority to audit personal data security measures, although it might be possible that the NRA or the data protection authority can use some general inspection powers for that purpose.

3. Cybercrime

This report analysed, whether the participating countries have ratified and transposed into national legislation the Council of Europe Convention on Cybercrime and the main lines of the countries policy to fight against cybercrime.

Montenegro has ratified the convention in 2010 and Kosovo adopted a law that transposed the convention into national legislation.

Now, all participating entities except Turkey and Kosovo have ratified the Convention on Cybercrime.

All countries except Bosnia & Herzegovina have brought their legislation in line with the convention. In Montenegro and Serbia, the criminal code does not consider computer-related forgery as a crime. In Bosnia & Herzegovina there is no cyber crime legislation at state level, but at entity level the Republika Srpska has some cyber crime provisions in its Criminal Code.

The table below shows whether specific acts are considered to be criminal offences, based on the list in the Convention on Cybercrime. Where the table shows a check mark, 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 an X, 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								

Table 19 - Computer related criminal offences

Six of the participating entities reported having a policy framework for the fight against cybercrime.

- Croatia has a national programme of information security.
- Turkey has adopted a new national strategy on combating organised crime, including cybercrime, in July 2010.
- The Albanian 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.
- Serbia has a special law on the organisation and competences of public authorities for fighting high technology crime.
- Kosovo adopted in 2010 a new Law on prevention and fight of the cybercrime that also contains provisions on information campaigns, cooperation between authorities, training of personnel and international cooperation.
- FYROM, Bosnia & Herzegovina and Montenegro do not have an explicit policy framework against cybercrime.

4. Bodies in charge for security policy

Several of the monitored countries have bodies responsible for network and information security policy, but a closer look reveals that most of the functions of these bodies 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".

Only two countries, Croatia and Turkey, have a body which significantly contributes to network security in general, not only the state's own networks:

- 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 with up to date advisories on current threats and incidents in Croatian language. Croatia also has a governmental CERT (ZSIS).
- 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 advises on current threats in the Turkish language.
- Albania and Montenegro consider establishing a CERT.

In Montenegro the Ministry for Information Society is in charge for information security policy. A policy document was adopted in May 2008.

Serbia has an Office of the Council for National Security, but has not published a policy document.

In Kosovo the NRA and the Ministry of Transport and Communications are responsible for the security public and telecommunications networks. The Ministry of Public Services is responsible for governmental networks. Although their responsibilities include preparing policy documents for the government, collecting data on information society and public awareness activities, no such information has yet been published.

FYROM, Albania, Bosnia & Herzegovina do not have a dedicated body responsible for network and information security policy.

Q. Electronic commerce and electronic signatures

1. Market access and liability

The Electronic Commerce Directive 2000/31/EC established a general authorisation scheme for providers of information society services. It also supports such providers by limiting the providers' liability for actions of their customers.

- According to article 4 Member States shall ensure that the taking up and pursuit of the activity of an information society service provider may not be made subject to prior authorisation or any other requirement having equivalent effect.
- Articles 12 to 14 exempt certain activities of internet service providers ('mere conduit', caching and hosting) from criminal and civil liability under certain conditions.
- According to article 15 Member States shall neither impose on providers a general obligation to monitor the information they transmit or store nor a general obligation to actively seek facts or circumstances indicating illegal activity.

All monitored countries except Turkey transposed these requirements into their national legislation. Turkey expects adoption of a law in spring 2011. The Turkish Law no. 5651⁹⁵ already contains some provisions on liability of ISPs, but it is not a transposition of the Electronic Commerce Directive. Turkish ISPs are not obliged to actively monitor or seek for illegal activities, similar to the rules in article 15 of the Electronic Commerce Directive. But whereas the Electronic Commerce Directive limits the liability of access providers ('mere conduit'), the Turkish law obliges them to block access to websites if a court or the NRA has decided that the website constitutes a criminal offence (see chapter VI.N on fundamental rights above).

⁹⁵ Law no. 5651 on regulating publication in internet and combating crimes committed through such publication

The table below provides an overview of alignment with the mentioned provisions of the Electronic Commerce Directive:

	HR	MK	TR	AL	BA	ME	RS	XK
No prior authorisation for information society services	✓	✓	✗	✓	✓	✓	✓	✓
Limited liability for 'mere conduit', caching and hosting	✓	✓	✗	✓	✓	✓	✓	✓
No obligation to actively monitor or seek for illegal activities	✓	✓	✓	✓	✓	✓	✓	✓
✓ transposed, ✗ draft being prepared								

Table 20 - Market access and liability of information society services

2. Legal recognition of electronic contracts and electronic signatures

The Electronic Commerce Directive 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' (these signatures 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.

3. 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, Albania, Montenegro and Kosovo. In the other countries, there are potential problems which might hinder market access:

- In FYROM certification service providers must register their activity with the Ministry of Finance 30 days prior beginning of their operation. According to the registration process as it is currently defined in secondary legislation, providers must wait for finalisation of the registration procedure before being allowed to issue certificates.
- Serbia requires prior authorisation of providers of qualified electronic signatures. However, there is new secondary legislation on the registration procedure. The growing number of providers issuing qualified certificates (now four) indicates that the registration does not hinder market access.
- Although Turkey does not require prior authorisation, providers of qualified certificates must notify their services two months in advance, which is unusually long. In case of an incomplete notification the authority may suspend the activity of the provider for the duration of a month.
- In Bosnia & Herzegovina 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.

Croatia is the only monitored country with its own voluntary accreditation scheme; which has been established under the Croatian Accreditation Agency following a July 2008 amendment to the Electronic signature act. Establishing a voluntary accreditation scheme is, however, not required by the Electronic Signatures Directive and only about half of the EU Member States have done so.

Supervision schemes have been established in Croatia (Ministry of Economy, Labour and Entrepreneurship and State Inspectors' Office), FYROM (Ministry of Finance), Turkey (Information and Communication Technologies Authority), Albania (National Authority for Electronic Certification), Montenegro (Ministry for Information Society) and Serbia (Ministry of Telecommunication and Information Society). In Bosnia & Herzegovina and in Kosovo no supervisory body has yet been established.

4. 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 123,000 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, As of June 2010 there have been 17,616 valid qualified certificates.
- The Serbian Post has issued about 2,500 qualified certificates since it started operation in December 2008. The Serbian Chamber of Commerce issued 200 and the Ministry of Interior 500 qualified certificates. A fourth operator, Halcom, has recently started its operations.
- The Albanian Post has recently been registered as certification-service provider, but has not yet started to issue certificates.
- In Bosnia & Herzegovina, Montenegro and Kosovo, no provider issues qualified certificates. Montenegro reported that 24% of enterprises use electronic signatures.

Table 21 below provides an overview of electronic signature regulations.

	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	✓	*	*	✓	*	✓	*	✓
Supervision system established	✓	✓	✓	✓	✗	✓	✓	✗
Voluntary accreditation scheme established	✓	–	–	–	–	–	–	–
Number of certification-service providers issuing qualified certificates	1	2	4	1	–	–	4	–
✓ = transposed/established, ✗ = not established although required by the Directive – = not established, * = potential problems for market access								

Table 21 - Electronic signature regulation and market data

R. Data protection and data retention

1. Protection of confidentiality of communications

According to article 5 e-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 Law on electronic communications 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.

The table below 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 22 - Protection of confidentiality of communications

2. Traffic and location data

According to article 6 of the e-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 and FYROM 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).

In FYROM, article 112 para. 1 of the Law on electronic communications originally said that traffic data must be erased as soon as possible. Amendments adopted in June 2010 removed this principle entirely and replaced it by the obligation to retain all raw traffic data for 24 months. Paragraph 2 of this article still says that operators may store data as long as needed for billing.

Article 6(3) of the e-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.

Article 9 of the e-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.

Serbia's new Law on electronic communications transposed these provisions. As the following table shows, Bosnia & Herzegovina still needs to align its law in order to protect traffic and location data, and FYROM has introduced the above mentioned discrepancy between its law and article 6 of the e-Privacy Directive.

	HR	MK	TR	AL	BA	ME	RS	XK
Traffic data must be deleted as soon as possible, except if needed for billing, or for data retention?	✓	✗	✓	✓	✗	✓	✓	✓
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								

Table 23 - Traffic and location data

3. Data retention

According to the e-Privacy Directive, providers typically have to erase traffic data as soon as they no longer need them for their legitimate purposes (in particular for billing, see Table 23 above). However, article 15(1) of the e-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.

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. Constitutional courts in Romania and Germany repealed the national implementation of the directive.⁹⁶ On February 10, 2009 the European Court of Justice dismissed an action for annulment of the directive brought by Ireland, but further lawsuits are pending.⁹⁷

FYROM and Serbia adopted data retention provisions in 2010 and in both countries these provisions have been challenged at the constitutional courts. The cases are still pending.

All participating countries except Kosovo now have some form of data retention provision in their laws, but in most countries the exact types of data to be retained are only loosely specified.

⁹⁶ Romanian Constitutional Court, October 9, 2009, [decision no. 1258\(1\)](#) and German Federal Constitutional Court, March 2, 2010, [case 1 BvR 256/08](#)

⁹⁷ ECJ February 10, 2009, case C-301/06 Ireland v Parliament and Council

- The new law in Serbia and recent amendments in FYROM oblige all operators to retain traffic data, but do not specify the details. In Serbia the law foresees that this would be regulated by a bylaw.
- The Albanian law obliges all providers of public electronic communications networks to retain data, but the list of data to be retained only includes telephony data. There is no specific requirement to retain internet data.
- In Turkey, article 6 of Law no. 5651 obliges internet access providers to retain traffic data, but does not specify the duration. The law only says that the duration would be between six months and two years, and set by a bylaw that has not been adopted.
- The law in Montenegro also does not specify the exact duration, but refers to a period of six months to two years.

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

Some countries have additional requirements, for example the new provisions in FYROM oblige operators to retain the data in the territory of the country. This seems not to be in line with the requirements of the Data Protection Directive 95/46/EC, which aims for a free flow of data within the internal market. FYROM also requires operators to have their surveillance equipment approved.

The table below shows which countries have defined data retention obligations for telephony data and/or for internet data. However, as explained above, the exact scope of the obligation often remains unclear.

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

Table 24 - Data retention obligations

4. Spam

Article 13 of the e-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, EU 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. Only Bosnia & Herzegovina does not have explicit legislation on spam.

Kosovo is the only monitored country where 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 Electronic 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 Electronic Commerce Directive left this question undecided and the e-Privacy Directive later required Member States to prohibit spam addressed to individuals.

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 if 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 was traditionally no explicit legislation on domain name management. 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 was usually decided by the registry itself, for example in the form of the registry's statute or general business conditions. Some countries have adopted, or are preparing explicit legislation on domain names:

- In Croatia an ordinance based on the Electronic communications act introduced in 2010 a new legal basis for domain name administration and liberalised the market for registrars. Whereas CARNet was previously the only registrar, CARNet is now the registry and has accredited 13 registrars.
- Turkey is preparing a bylaw which will become the legal basis for selecting the national registry. In FYROM a national law on the organisation and operation of the National and Research Education Network (NREN) is under preparation. It will establish NREN as new legal entity, which will also take over the function of the national registry.
- In Bosnia & Herzegovina and in Serbia there is no explicit legislation on domain name management.
- In Albania the telecommunications regulator is the national registry and has, since June 2008, an explicit legal basis in the Law on electronic communications. 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 was the first country in the region to choose a fully market based approach in its domain name policy and to clearly separate 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.
- 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 makes access to domain names easier and cheaper. 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. Croatia moved from the "Registry is only registrar" model to the competition model in 2010.

	Competition model	“Registry is only registrar” model
Competition between registrars exists	Yes	No
Countries	BA, HR, ME, RS, TR	AL, MK
Who accredits registrars	The registry	–
Electronic interface exists	Yes	No
Number of registrars	BA: 20, HR: 13, ME: 123, RS: 36, TR: 13	1 (the registry)
Price per domain and year	BA: €15 (first year: €41), HR: €0 to €21, ME: €10, RS: €4.20 to €13, TR: €2.10 to €10.50 Does not include registrar functions	AL: €11.72, MK: €4.29 to €8.58 Includes registrar functions

Table 25 - Registrars of domain names

Prices per domain and year are similar in both models. The price of the registry in Bosnia & Herzegovina is significantly higher than in other countries of the region. In Croatia, about 80% of the registered domains are free of charge. For legal persons and persons that offer registered services, the first domain is free if it corresponds to the registrant's name.

Montenegro and Serbia are the only countries where foreign undertakings may become accredited registrars (in Serbia, however, it is required that the undertaking has a local presence). This and the attractiveness of the domain name .me for English speaking domain name users explain the large number of accredited registrars. Turkey has stopped accrediting registrars at the beginning of 2009 due to the preparation of a new bylaw on domain names.

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. Croatia, Bosnia & Herzegovina and Montenegro use ICANN's Uniform Domain Dispute Resolution Policy as the basis of their dispute resolution mechanism; and Turkey is planning to use it.⁹⁸

4. Domain market data

It is difficult to compare the numbers of registered domain names because the situation in the monitored countries is too different. However, the following figure shows the number of the registered sub domains of the relevant ccTLD. As far as available, data as of July or August 2010 has been used. The figure shows the absolute number of domain names (left axis, columns) and the number of domain names per 1000 inhabitants (right axis, dots).

⁹⁸ <http://www.icann.org/en/udrp/udrp.htm>

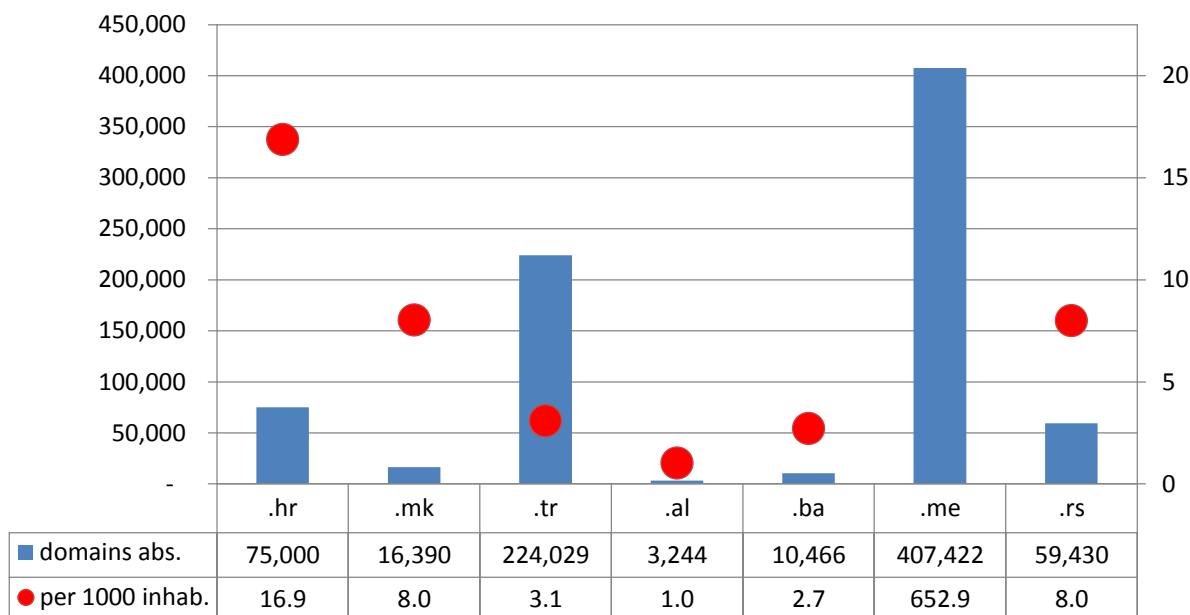


Figure 59 - Domain names, absolute and per 1000 inhabitants

The .me top level domain is highly attractive for foreigners. Montenegro reported 407,422 domain names by June 2010, almost twice as much as in Turkey. The number is steadily growing by about 10,000 new domain names per month. Almost all of this interest in Montenegrin domain names comes from other countries. There are about 650 .me domain names per 1000 inhabitants, two orders of magnitude more than in other countries (and therefore not visible in the figure above).

Serbia successfully replaced about 34,000 .yu domains (end of 2007) by about 61,000 .rs. domains (as of November 2010). Serbia will also have an additional top-level domain in Cyrillic letters, .cpб.⁹⁹

In comparison with population, usage of the .al, .ba and .tr top level domains is relatively low. Albania stands out with a particularly low figure, which might be related to the fact that Albania does not have competition between registrars. Turkey only has a large number of .tr domains due to the size of country.

⁹⁹ On November 8, 2010 ICANN approved .cpб as an additional national domain for Serbia, but the delegation of the new domain is still pending.

VII. COUNTRY PROFILES

A. Croatia

1. Legal and institutional framework

a) Electronic Communications Act

The Electronic Communications Act of June 19, 2008 entered into force on July 1, 2008. It replaced the Telecommunications Act of 2003 as the principal legal instrument for the electronic communications sector, defining the institutional framework, the responsibilities of the government, the ministry and the national regulatory authority. The whole package of the necessary implementing legislation was adopted in the first half of 2009, bringing the legislative framework in electronic communications into line with the EU 2003 regulatory framework.

A further set of amendments to the law based on the EU 2009 regulatory framework are currently being drafted and expected to be adopted in 2011.

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.¹⁰⁰ It develops and promotes general principles, strategies and policy objectives for the electronic communications sector, adopts some of implementing legislation as prescribed by the Electronic Communications Act and approves 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 established the Croatian Post and Electronic Communications Agency (HAKOM) as the national regulatory authority that took over the tasks and responsibilities of the previous regulators for telecommunications (the Croatian Telecommunications Agency, HAT) and for postal services (the Postal Services Council).¹⁰¹ HAKOM 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.

HAKOM is governed by a council comprising seven members, of which two are appointed as the chairman and deputy chairman. During their terms of office, the council members are employed as full-time executives. 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 NRA'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.

HAKOM is self-financed and is a non-profit legal entity with its own budget, funded from 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.

In 2009 the administrative capacity of HAKOM was further enhanced. Measures were taken to increase the level of transparency of the work of the regulator and to improve the accessibility of the relevant information to the public. The telecommunications users council has been replaced by the consumer protection unit of the regulator as an advisory body. Representatives of consumer protection associations have been appointed to this advisory body.

¹⁰⁰ <http://www.mmpi.hr/default.aspx?id=777>

¹⁰¹ <http://www.telekom.hr/Default.aspx>

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 general and e-government activities. The Ministry of the Sea, Transport and Infrastructure develops electronic communications policy and is currently consulting on a new broadband strategy.

The Central Bureau of Statistics publishes comprehensive annual statistics that are aligned with Eurostat methodology.

Other bodies that have information society responsibilities are:

- 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 (operates a Computer Emergency Response Team and is the national domain name registry);
- the Ministry of the Economy, Labour and Entrepreneurship (e-business and supervision of electronic signatures);
- the Croatian Accreditation Agency (accreditation of certification-service providers);
- the Ministry of Health and Social Care (e-health); and
- the Ministry of Justice (e-Justice) and the Ministry of Science, Education and Sports (e-education).

Croatia has implemented the Electronic 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, T-Hrvatski Telekom (T-HT) was completely removed in early December 2010. The privatisation process 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 of 51% of shares. In February 2005 the government transferred 7% of its shares to Homeland War Veterans Fund. Following an IPO of 32% of the stock of T-HT in September 2007 and further transactions in 2008 and 2010, the state's shareholding was eliminated.

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 Electronic Communications Act emphasises the separation of the NRA regulatory tasks from policy making and state administration. In particular, the administrative supervision of the NRA 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 HAKOM regarding policy objectives and goals, but these should not influence the NRA decisions in individual cases.

The Act also excludes the regulatory activities of the NRA from the application of provisions on administrative supervision of the General Administrative Procedure Act, meaning that HAKOM's decisions cannot be overturned by the Ministry. Appeals against the NRA 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 complex authorisation regime combining concessions, individual licences and general authorisation that were granted by the regulator depending on the service characteristics and the use of limited resources.

The Electronic Communications Act of 2008 introduced a general authorisation regime in which electronic communications networks and services can be provided without individual licences, subject to a notification submitted to the Agency at least 15 days before starting activities. The necessary implementing legislation was adopted and entered into force in December 2008.

Individual licences continue to be issued by HAKOM for the right to use radio spectrum.

4. Market structure

The incumbent operator T-HT remains the main provider of public fixed telephony networks and services. In May 2006 T-HT acquired Iskon Internet, one of the leading alternative providers, who after the acquisition continues to provide voice telephony and internet services in its own name. In addition to T-HT and Iskon, there are seven alternative operators active in the market. By Q1 2010, alternative operators had 511,520 subscribers and 30% market share. In the fixed network there were over 417,000 ported numbers and 130,576 unbundled local loops.

There are three mobile operators in Croatia with own network infrastructure: T-Mobile (T-HT's mobile subsidiary), VIPnet (owned by Telekom Austria) and Tele2 (controlled by the Swedish operator Tele2). T-Mobile and Tele2 have spectrum licences for provision of 2G services in the 900 MHz and 1800 MHz bands, while VIPnet – only in the 900 MHz band. All three operators were issued spectrum licences in the 2100 MHz band and have launched commercial 3G services. By Q1 2010, with 136% mobile penetration the number of dedicated data card users over mobile networks was 269,091, which gives a penetration of 6% per 100 population.

In 2009 HAKOM renewed the existing spectrum licences in 900 MHz, 1800 MHz and 2100 MHz extending them until 2024 on technology neutral basis: on June 19, 2009 for VIPnet and Tele2, and on August 31, 2009 for T-Mobile. In accordance with the national frequency plan, mobile operators are now allowed to deploy UMTS services in the 900 MHz and 1800 MHz bands.

By Q1 2010, there were 124,757 ported numbers in the mobile networks, which corresponds to 2% of total mobile numbers.

By January 2010 the fixed broadband penetration in Croatia was the highest among the monitored countries: 16% per 100 population, above the level of Romania (13%) and Bulgaria (13%) that joined the EU in 2007. In addition to 711,805 fixed broadband lines, there were 779,056 narrowband connections. The total market share of alternative providers had reached 20% of total retail internet connections and close to 25% of broadband connections.

5. Significant market power

The Electronic Communications Act of 2008 provides for market analysis procedures, definition of relevant markets, SMP designations and the imposition of regulatory obligations based on the principles of the national competition law and the EU 2003 regulatory framework. The new law requires the NRA to carry out market analysis procedures at least once every three years.

In July 2009 HAKOM completed its analysis of nine relevant markets under the new regulatory framework. In identifying the nine markets relevant for ex ante regulation, the NRA followed the seven markets of the 2007 European Commission recommendation and applied the three criteria test for additional markets. The following operators were designated as having SMP and imposed regulatory obligations in five of the nine markets:

- wholesale call termination in public fixed networks – T-HT and eight alternative operators including Iskon Internet;
- wholesale broadband access – T-HT;
- wholesale call termination on individual mobile networks – T-Mobile Hrvatska, VIPnet, Tele2;
- wholesale infrastructure access at a fixed location – T-HT;
- wholesale call origination from public fixed networks – T-HT.

Asymmetric regulatory obligations were applied by HAKOM in two markets: in the market for mobile call termination a lighter set of regulatory obligations were imposed on Tele2 as opposed to T-Mobile and VIPnet, and in the market for fixed call termination lighter obligations were imposed on alternative operators as opposed to T-HT. According to glide paths imposed by HAKOM for fixed and mobile operators with SMP, symmetry in fixed and mobile networks respectively is envisaged from January 2013.

Four of the nine analysed markets were found not satisfying the three criteria test and not subject to any regulation:

- public voice services in mobile networks;
- wholesale SMS termination on individual mobile networks;
- wholesale transit services in public fixed network; and
- wholesale access and call origination from public mobile networks.

According to the NRA decision of July 9, 2008 on the markets relevant for ex ante regulation, four further markets will be analysed at a later stage covering retail access to public fixed telephony services at fixed location for residential and business customers, minimum set of leased lines and wholesale terminating and trunk segments of leased lines. The analysis of these markets is currently ongoing.

6. Competitive safeguards

The following key competitive safeguards have been implemented:

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

On October 1, 2009 the following regulated offers were published by the operators with SMP in accordance with HAKOM decisions on market analyses:

- T-HT: RIO, RUO, wholesale bitstream access offer. The wholesale bitstream access offer contains technical conditions for the provision of bitstream access at IP level over FTTH network.
- T-Mobile and VIPnet: RIOs.

The scope of remedies imposed on T-HT in the wholesale infrastructure access and wholesale broadband access markets also include specific NGA obligations that apply specifically to T-HT fibre deployments, including unbundled access to its P2P FTTH network and bitstream access over fibre. As a follow-up to the market analysis decisions, HAKOM adopted in September 2010 an Ordinance on technical and usage conditions for optical fibre distribution networks, which is intended to facilitate deployment of open access fibre networks and possibilities for unbundled access. In particular, the ordinance mandates a P2P FTTH topology and multi-mode fibre lines for all new fibre NGA deployments in Croatia.

In accordance with the price control obligations imposed on T-HT in the wholesale fixed markets, and on T-Mobile and VIPnet in the wholesale mobile call termination market, fixed interconnection charges, LLU, bitstream access charges and mobile termination rates are to be cost-oriented and set based on a cost model. Until cost models are implemented, HAKOM sets fixed interconnection and LLU charges, as well as mobile termination rates of SMP operators on the basis of benchmarking against the EU-27 average levels, while wholesale bitstream access prices are based on "retail minus".

HAKOM expects to have completed the LRIC cost models for determining prices for wholesale services of operators with SMP in 2011 and set cost-oriented prices starting from 2012.

7. 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. 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.

Article 36 of the 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.

Following the expiry of T-HT five-year designation period as USO provider, HAKOM completed a new tender procedure in October 2010, designated two US providers on the national level:

- T-HT for provision of access to public fixed voice telephone services and functional internet access (33.6 kbps), public payphones and services for disabled; and
- an alternative provider Imenik for comprehensive directory services.

HAKOM has included the calculation of net cost for the provision of the universal service obligation as part of its cost modelling project.

8. European Union

In November 2010, the European Commission noted¹⁰² that Croatia made significant progress with aligning its policy, legislation and regulations with the information society *acquis*. Market analysis procedures were well advanced, including the preparation of cost models and imposing accounting separation on SMP operators. The switchover to digital television broadcasting has been handled successfully.

The Commission however remarked that in spite of the regulations in place, competition on the fixed broadband market remained limited. The 'crisis tax' imposed in 2009 on mobile network operators' revenue remained in force. The Commission criticised that no analysis of its non-detrimental effects on market liberalisation had been published for public review and that the tax mostly affected the latest entrant.

With regard to information society services, the Commission concluded that preparations are nearing completion, but that EU policy developments like the safer internet programme should be followed more closely. Information society policies needed to be further integrated into all government policies.

9. Outlook

Croatia fulfilled the EU accession requirements for Information Society and Media at the end of 2008. A new legislative effort aims at aligning the Croatian law with the provisions of the EU 2009 regulatory framework.

The main priorities of the regulator are concluding the analyses of the fixed retail access and leased lines markets and developing methodologies for regulatory cost accounting to ensure effective wholesale price control mechanisms for fixed and mobile networks.

¹⁰² Croatia 2010 Progress Report, [SEC\(2010\)1326](#)

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.

In June 2010 a set of amendments to the Electronic Communications Law were adopted that are largely focused on institutional issues. The amendments address the division of tasks between the regulatory body and the ministry, procedural issues related to the appointment and dismissal of the NRA commission members and its director, transparency of the NRA activities and its accountability. They also clarify the designation mechanism for universal service providers and improve transparency with regard to prices and quality of the universal service. Other issues include removal of the requirement for the regulator to carry out market analyses at least once every year, enforcement of obligations imposed on operators with SMP and protection of the end user rights.

New provisions also introduced extensive obligations for telecom operators regarding data retention and interception requirements. These provisions have been contested at the constitutional court.

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.¹⁰³

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 the commission meetings. 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.

AEC 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.

Following amendments to the Electronic Communications Law that entered into force in August 2008, the appeal procedures for the NRA decisions have been modified. Decisions of the AEC director are now final in the administrative procedure and no longer subject to appeal to the AEC commission. According to the new procedures, appeals must be brought before Administrative Court within 30 days from the delivery of the decision. The entire appeal process is regulated by the Law on Administrative Disputes of May 19, 2006.

d) Information society

The Ministry of Information Society is the government institution responsible for information society policy in general, namely the National Strategy for Information Society Development, which was adopted in April 2005. Policy making for the electronic communications sector is the responsibility of the Ministry of Transport and Communications.

¹⁰³ <http://www.mtc.gov.mk/>

The Statistical Office is responsible for information society statistics and publishes comprehensive annual statistics that are aligned with Eurostat methodology. The Ministry of Finance is supervisory authority for electronic signature. There is no clear designation of responsibilities for network and information security. The Macedonian Academic Research Network operates as the national domain name registry and is also the only registrar. FYROM is one of only two countries in the region without competition between registrars. It is planned to introduce the National and Research Education Network as a new legal entity, which would also take over the function of the registry.

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

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 34.81% 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 shareholders in regulated entities or perform any other tasks that would result in a conflict of interests.

b) Administrative independence

Under the Electronic Communications Law, AEC has been granted sufficient 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.

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 AEC before the start of activities. AEC 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.

Although the general authorisation regime was introduced in 2005, it was only on July 24, 2008 that Parliament enacted amendments¹⁰⁴ to the Law on Electronic Communications cancelling the concession contracts of Makedonski Telekom and of the two mobile operators, T-Mobile and Cosmofon. In September 2008, AEC confirmed to the operators their notifications for provision of electronic networks and services according to their cancelled concession contracts, and issued registrations and radio frequency authorisations.

Registered providers of public electronic communications networks and 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.

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

4. Market structure

The incumbent operator, Makedonski Telekom, is the main provider of public fixed telephony networks and services. In addition to Makedonski Telekom, there are eight major alternative fixed network operators currently active in the market. The number of subscribers of alternative providers nearly doubled between June 2009 and January 2010, reaching over 80,000 by Q1 2010 and 19% market share. In the fixed network there were over 24,771 ported numbers and 4,369 unbundled local loops.

There are three mobile operators in FYROM with their own networks: T-Mobile (Makedonski Telekom's mobile subsidiary), One (former Cosmofon, now owned by Telekom Slovenije) and VIP (owned by Telekom Austria). T-Mobile and One have been active in the market since 2001, while VIP launched its operations in 2007. T-Mobile and VIP operate 2G networks in both the 900 MHz and 1800 MHz bands, while Cosmofon only in the 900 MHz band. Mobile penetration reported in Q1 2010 was 95%.

In 2008, 3G spectrum in the 2100 MHz band was acquired in separate auction procedures by Cosmofon and by T-Mobile. In December 2009, the national frequency plan was amended to allow deployment of UMTS in the 900 MHz and the 1800 MHz frequency bands. Mobile broadband is still in a very early phase.

By January 2010 the fixed broadband penetration in FYROM was 11.10%. Broadband access has almost phased out dial-up connections. As of Q1 2010, there were less than 2,500 narrowband lines and nearly 227,000 broadband lines.

5. 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 Competition¹⁰⁵ and the EU 2003 regulatory framework.

In 2010, AEC has completed its first round analysis of the 16 relevant markets defined based on the 2003 Commission recommendation (except for international roaming and broadcasting transmission). The following operators were designated as having SMP and imposed regulatory obligations:

- retail fixed access and call services (M 1-6/2003) – Makedonski Telekom;
- retail and wholesale leased lines services (M 7, 13-14/2003 – Makedonski Telekom;
- wholesale call termination in public fixed networks (M 9/2003) – Makedonski Telekom and seven alternative operators;
- wholesale fixed call origination (M 8/2003) – Makedonski Telekom;
- wholesale transit services (M 10/2003) – Makedonski Telekom;
- wholesale infrastructure and wholesale broadband access (M 11-12/2003) – Makedonski Telekom;
- wholesale mobile access and call origination (M 15/2003) – T-Mobile.

At the same time, AEC has also carried out its second round analysis of the wholesale mobile call termination market for all three mobile operators (M 16/2003) and approved asymmetric glide paths for MTRs reductions leading to symmetric rates by August 1, 2013.

6. Competitive safeguards

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

- CS/CPS in the fixed network is available since January 2007 for national, international and calls to mobile numbers and since May 2008 – for local calls.
- RIO of the fixed incumbent operator, Makedonski Telekom, is available since February 2006.
- First RIOs of the two mobile operators with SMP were implemented in April 2008. Following the second round analysis of M 16/2003, new RIOs for all three mobile operators were published in July 2010.

¹⁰⁵ <http://www.kzk.gov.mk/eng/law.asp>

- RUO is available since May 2006 but so far there has been only one agreement on LLU between Makedonski Telekom and One. From December 2008, includes the possibility for alternative operators to offer 'naked DSL', i.e. broadband access without PSTN services offered over the same line.
- Cost-oriented fixed interconnection and LLU charges based on forward-looking top-down LRIC methodology were approved in May 2008. In October 2010 AEC published for consultation a new BU LRIC model that will be used to set cost-oriented wholesale fixed prices.
- From August 2010, AEC applies a new BU LRIC cost model for setting cost-oriented MTRs of mobile operators with SMP.
- Wholesale line rental (WLR) had been offered commercially since November 2008. The first regulated WLR offer was approved by AEC in March 2009. WLR prices are regulated according to retail-minus methodology.
- Wholesale bitstream access (BSA) with handover at IP-level and broadband resale had been offered commercially since 2007. The first regulated BSA and resale offers of Makedonski Telekom were approved by AEC in July 2009.
- Number portability in fixed and mobile networks is available since September 1, 2008. The maximum time frame for the number transfer from the donor to the recipient operator is two working days and the maximum inter-operator fee for number porting has been set by AEC at MKD 200.00 (€3.3).

7. 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 bps;
- 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. AEC launched a tender procedure to designate US providers in January 2008. The procedure, however, was not completed because certain issues that were not clearly defined in the law, in particular the designation of several providers covering only specific universal service components or specific geographic areas. Following the amendments to the Electronic Communications Law adopted in June 2010, the NRA adopted a new bylaw on US provision and plans to resume the US provider designation procedure.

8. European Union

In November 2010, the European Commission noted¹⁰⁶ good progress in the area of electronic communications. The Law on electronic communications was amended to further improve its alignment with the *acquis* and amendments to the Law on construction allowed municipalities to grant permissions for building telecommunications infrastructure. Market analysis procedures and imposition of remedies had progressed significantly. According to the Commission, the regulator is adequately staffed and self-financed, has increased its capacities to manage frequencies, established a consumer protection department and acts in closer cooperation with the competition authority.

However, the Commission raised the question whether the provisions on interception of communications were compatible with European standards. The level of cooperation between the regulator and the competition authority seemed insufficient to allow thorough enforcement of the competitive safeguards. The emergency number 112 still needs to be introduced. The Commission also noted that administrative

¹⁰⁶ The former Yugoslav Republic of Macedonia 2010 Progress Report. [SEC\(2010\)1332](#).

capacities within the Ministry of Transport and Communications needed to be strengthened, but that this is already being prepared.

With regard to information society services, the Commission reported some progress, in particular in the areas of e-government and e-education. Legislation is well aligned with the e-Commerce Directive, but some administrative structures for its implementation were lacking, in particular a national contact point.

9. Outlook

The regulator has completed its first round market analysis and also finalised regulatory cost accounting models for setting regulated wholesale prices.

Among priorities of AEC are now the effective implementation and enforcement of regulatory obligations and the designation of the universal service providers.

C. Turkey

1. Legal and institutional framework

a) Electronic Communications Law

The new Electronic Communications Law no. 5809¹⁰⁷ was published in the Official Gazette on November 10, 2008. The law changed the Turkish legal and institutional framework for electronic communications significantly and improved the alignment with the EU regulations, in particular in the area of authorisations.

The new law came into force on the date of its publication, except for provisions on the general authorisation regime which entered into force on May 10, 2009.

b) Ministry of Transport

Ministry of Transport defines the state strategies and policies for the electronic communications sector. According to the Electronic Communications Law, the ministry is also responsible for promoting research, development and training activities for the needs of the electronic communications sector. The financing of such activities is foreseen through the transfer of funds from the national regulatory authority with an amount of up to 20% of its revenue.

Under the previous authorisation regime, the ministry played an important role in defining tender procedures for concession agreements for provision of telecommunications services and infrastructures at the national level by a limited number of operators. Under the new law, the ministry remains responsible for determining the authorisation policy for the services that involve the use of spectrum resources and will be provided on the national scale by a limited number of operators. While determining the number of authorisations and their duration, as well as carrying out the tender procedures falls within the scope of the NRA competences, the law also reserves the right for the ministry to open tender procedures directly on its own to issue authorisations for services with the use of frequency resources on the national scale.

Under the Universal Service Law no. 5369 of June 16, 2005, the ministry also remains responsible for the implementation of universal service and the management of the universal service fund.

c) Information and Communication Technologies Authority

The Electronic Communications Law changes the name of the national regulatory authority (formerly, Telecommunications Authority) to Information and Communication Technologies Authority (ICTA).

ICTA is an administratively and financially 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, inspection and arbitration.

The decision-making body of ICTA is the board, consisting of seven members, including a chairman and a vice chairman. The chairman is also responsible for the general management and representation of ICTA. Board members are appointed for a period of five years by the Council of Ministers, subject 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.

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.

ICTA has independent sources of finance, including annual administrative charges, numbering and frequency fees, 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 ICTA are audited by the

¹⁰⁷ http://www.tk.gov.tr/Duzenlemeler/Hukuki/Kanunlar/2008/elektronik_haberlesme_kanunu.htm

Supreme Audit Council of the Prime Minister, the Ministry of Finance and the Council of Inspectors of the Prime Minister.

Appeals against ICTA regulations and Board decisions can be brought before the Council of State, the highest administrative court in Turkey.

d) 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 policies in general. Developing the Information Society strategy is one of the many planning tasks of the SPO. The current strategy is valid for the period from 2006 to 2010 and a new version is being drafted. Such strategies are adopted by the High Planning Council composed of the Prime Minister, several other ministers and the Undersecretary of the SPO.

The Turkish Statistical Institute publishes comprehensive annual statistics that are aligned with Eurostat methodology.

Other bodies with information society responsibilities are TR-CERT (information security policy) and the National Research Institute of Electronics and Cryptology (UEKAE, monitoring threats to information security, including spam). ICTA is in charge of supervising electronic signatures. An organisational unit of the Middle East Technical University is the national domain name registry.

Turkey has implemented the Electronic Signatures Directive. A law to transpose the Electronic Commerce Directive has been drafted and its adoption is foreseen by April 2011. Turkey has not ratified the Cybercrime Convention, but the crimes listed in this convention are considered as criminal offences in the Turkish Criminal Code.

A law¹⁰⁸ enacted in 2007 obliges internet service providers to block access to websites, if content hosted on these websites constitutes one of the crimes enlisted in this law. Blocking orders can be issued by courts or by the Telecommunication Communication Presidency of the regulator ICTA. The law has been criticised as it does not contain a mechanism ensuring proportionality of the blocking orders. Many popular video portals are blocked as a whole because of individual videos that were considered as infringing the law. According to the OSCE¹⁰⁹, access to approximately 5,000 websites has been blocked until June 2010.

2. Regulatory independence

a) Privatisation and operational 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 shares of Türk Telekom have been trading on the Istanbul Stock Exchange.

The state currently owns 30% of shares of Türk Telekom, in addition to its golden share. It also controls the Turkish satellite and cable TV operator Türksat, 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.

b) Administrative independence

The new law provides for a clearer division between the responsibilities of the Ministry of Transport as the policy making body and the regulatory tasks of the national regulatory authority, although there remains a certain overlap of functions regarding authorisation procedures.

¹⁰⁸ Law no. 5651, dated May 4, 2007, on regulation of publications on the Internet and combating crimes committed by means of such publications

¹⁰⁹ Organization for Security and Co-operation in Europe, Report of the OSCE Representative on Freedom of the Media on Turkey and Internet Censorship, January 2010, http://www.osce.org/documents/rfm/2010/01/42294_en.pdf, see also the press release of June 22, 2010, http://www.osce.org/fom/item_1_44754.html.

ICTA administrative independence is stipulated by the new provisions of article 5 of the Law on Establishment of Information Technologies and Communications Authority (Law no. 2813) amended by the Electronic Communications Law: *'ICTA is independent in performing its tasks. Not any body, office, authority or person could direct or instruct the Authority.'*

3. Market access and authorisations

a) Authorisations regime

From May 10, 2009 the Electronic Communications Law introduced a general authorisation regime with a notification to ICTA. It replaced the previous complex regime consisting of authorisation agreements, concession agreements and individual licences issued for specific service categories.

Individual rights of use are issued only for the use of scarce resources, such as frequencies and numbers. Where the number of rights of use is not limited, the rights of use are issued by ICTA within 30 days from the application. Authorisations for the services where the number of rights of use is limited, such as frequency bands or satellite positions, will be issued based on a public tender procedure.

Operators who were authorised under the previous regime through an individual licence or a general authorisation have been regarded as having been notified to ICTA and assigned the rights of use if required. On the other hand, authorisation and concession agreements signed before the entry into force of the new law will remain in force until their termination due to expiry (i.e., up to 2029) or cancellation for any other reason. Currently, there is one authorisation agreement still in force, issued to Türksat, and seven concession agreements: one with Türk Telekom, three with mobile operators for GSM services and another three for UMTS/IMT-2000 services. The law does not contain any explicit requirement to bring them in line with the new authorisations regime within a short transitional period.

b) Market access

The provision of domestic long-distance and international telecommunications networks and services was liberalised from January 1, 2004, while the liberalisation of local services was only achieved with entry into force of the new authorisation regime in May 2009. The introduction of general authorisation regime is one of the key developments brought by the 2008 law, allowing new operators to enter the markets on simple notification.

Authorisation fees consist of administrative fees and fees for the rights of use. Currently the annual administrative fees are set at 0.35% of the previous year net sales, but ICTA may increase this up to the maximum amount of 0.5%.

4. Market structure

Until 2009, the incumbent operator Türk Telekom remained the only authorised provider of public fixed telephony services with own network infrastructure. Competition has only emerged at the service level with alternative providers offering national long distance and international call services by means of CS/CPS and VoIP. Following the introduction of general authorisation regime, the first alternative fixed network operators have entered the market and ten of them are now active commercially. Overall market share of alternative network operators and services providers remains below 5% and was even declining between 2008 and 2010.

There are three mobile operators in Turkey with own network infrastructure: Avea (Türk Telekom's mobile subsidiary), Turkcell (controlled by TeliaSonera) and Vodafone (owned by Vodafone group). Turkcell and Vodafone, both active on the market since 1998, have been assigned spectrum in the 900 MHz band, while Avea that was licensed in 2001 operates in the 1800 MHz band. Mobile penetration reported in Q1 2010 was 86%.

In April 2009, the regulator awarded three UMTS spectrum licences in the 2100 MHz, following an auction procedure held in November 2008. Turkcell won the spectrum assignment for 40 MHz, Vodafone for 35 MHz and Avea for 30 MHz. The fourth licence for 25 MHz spectrum remained unassigned, as no bids were submitted. Commercial services have been available since July 2009. Mobile broadband penetration as of Q1 2010 was around 1.2%.

Fixed broadband services are dominated by the incumbent's subsidiary TT Net providing over 90% of all fixed connections. The competitors are mainly using the wholesale bitstream access offer from Türk

Telekom, while the use of LLU is insignificant. By January 2010 the fixed broadband penetration in Turkey had reached 9.60%.

5. Significant market power

ICTA has completed its second round of market analyses. In line with its first round, the analysed markets correspond to 16 relevant markets of the 2003 Commission recommendation on relevant markets (i.e. excluding the two wholesale markets for international roaming and broadcasting transmission services). Final decisions on all markets were adopted between December 2009 and February 2010.

ICTA retained the SMP designations of Türk Telekom and the full set of regulatory obligations imposed in the fixed retail and wholesale markets. New obligations to provide wholesale line rental and naked DSL were imposed and access obligations on the wholesale markets for broadband access and wholesale leased lines were specified in more detail.

In addition, in the market for call termination on individual fixed networks, ICTA designated all alternative operators that 'have been assigned fixed subscriber numbers' as having SMP and subject to lighter asymmetric regulatory obligations.

In the two wholesale mobile markets, ICTA also retained the previous SMP designations. In the market for wholesale call termination on individual mobile networks, ICTA also designated all potential new entrant operators as having SMP subject to asymmetric obligations.

6. Competitive safeguards

The following competitive safeguards have been implemented:

- CS/CPS on fixed network has been available since 2006 for long-distance and international calls, as well as for call to mobile numbers; and from 2009 it is also available for local calls.
- RIOs have been published by Türk Telekom and by mobile operators. ICTA new price control decisions for fixed call origination and termination of Türk Telekom and for mobile call termination on the networks of Turkcell, Vodafone and Avea, applicable from April 1, 2010. Fixed double transit charges were reduced by almost 20% and mobile termination rates were reduced by more than 50%.
- RUO has been available since November 2006. In July 2010 ICTA lowered the one-off charges by almost 50% and slightly reduced monthly rental fees, for both full and shared access.
- Regulated reference offers for wholesale bitstream access and resale were introduced in August 2007. Initially wholesale bitstream access was available only at IP-level, but from June 2009 the first reference offer for bitstream access at ATM level was made available. Wholesale broadband access prices were significantly reduced by ICTA during 2009.
- Number portability was implemented in November 2008 in mobile networks with over 22 million numbers ported within two years from its introduction. Number portability in fixed network was introduced in September 2009.

7. 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.

In 2006, this list was extended by the Council of Ministers to include two further elements:

- services oriented to spread information technologies, including computer literacy, to help the development of information society (February 2006), and
- digital broadcasting services utilising various broadcast media and technology via digital terrestrial transmitters and covering 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 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 NRA;
- 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 NRA;
- 20% of what remains in the NRA budget after all expenditures have been 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 no payments have been made to operators.

8. European Union

The European Commission reported¹¹⁰ progress in the area of electronic communications, in particular the adoption of secondary legislation and a strategic plan for 2010 to 2012 by the regulator ICTA: The publication of ICTA board decisions was considered a positive development with regard to transparency and accountability.

However, the Commission criticised that the primary law and implementing regulations were still not fully aligned with the *acquis*. The authorisation procedures and the market analysis procedures – in particular with regard to imposing access – give the regulator a margin of discretion that may lead to legal unpredictability. The primary law would not sufficiently ensure transparency and independence of the regulator. No progress had been achieved with regard to fixed number portability.

With regard to information society services, the Commission reported only limited progress. The Law on electronic signatures still showed several discrepancies with the Electronic Signature Directive. The Law no. 5651 appeared not to be in line with international standards protecting freedom of expression and might affect citizens' rights relating to internet access.

9. Outlook

Despite the major progress in aligning the national legislation with the EU regulatory framework, there has been little improvement in terms of competitive situation in the fixed telephony and fixed broadband markets. This highlights the need for effective implementation of regulatory obligations as the primary tasks for the NRA. Following the recently completed market analyses, the priority would be effective implementation and enforcement of the regulatory obligations, in particularly the new remedies in the fixed markets, such as WLR and naked DSL.

¹¹⁰ Turkey 2010 Progress Report. [SEC\(2010\)1327](#),

D. Albania

1. Legal and institutional framework

a) Law on Electronic Communications

Law no. 9918 on Electronic Communications 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 is based on the EU 2003 regulatory framework for electronic communications and replaces the previous Law no. 8618 of June 14, 2000 on Telecommunications.

With EBRD assistance a set of draft amendments have been proposed to further improve this law and bring it more into line with the EU 2003 regulatory framework for electronic communications and also introduce many provisions of the new EU 2009 framework where these changes can easily be included. However, even if parliament adopts these amendments in 2010 there will be areas where Albania will still need to legislate before becoming fully aligned with the EU 2009 framework. These are the provisions on spectrum auctions and trading, rights of way and infrastructure sharing, functional separation of operators, the R&TTE and EMC directives, emergency services, legal interception and data retention.

b) Law on Public and Private Radio and Television

Although primarily concerned with radio and TV broadcasting, Law no. 8410 on public and private radio and television in the Republic of Albania still requires the licensing of cable TV operators. An amendment to this law is proposed for 2010, bringing it into line with the requirements for telecommunications operators under Law no. 9918 whereby only prior notification is needed to establish a network.

c) Ministry for Innovation and Information and Communication Technology

The Ministry for Innovation and Information and Communication Technology is in charge of policymaking and legislation for the electronic communications and information society sectors. In March 2010 it took over the competencies for electronic communications, as defined in Law no. 9918 on electronic communications that previously were carried out by the Ministry of Public Works, Transport and Telecommunications and by the Ministry of State for Reform and Parliamentary Relations.

Its responsibilities include drafting policies for the electronic communications sector subject to approval by the Council of Ministers, drafting relevant primary and secondary legislation, preparing the National Radio Frequency Plan. It is also responsible for the approval of tender procedures for frequency assignment and designation of universal service providers, based on proposals by the regulator.

On May 5, 2010 the Council of Ministers approved a new policy for electronic communications for the period from 2010 to 2014, replacing the policy paper from 1999. The key features of the new policy are further liberalisation, European integration and convergence. The main implementation focus is to address Albania's underdeveloped telecommunications infrastructure, spectrum liberalisation, universal service and users' rights, public funding and competition rules, and improved access to public and private property.

d) Authority of Electronic and Postal Communications

The Authority of Electronic and Postal Communications (AKEP) took over in 2008 the tasks and responsibilities of the previous regulator, the Telecommunications Regulatory Entity (TRE).¹¹¹ AKEP is a public, independent, non-budgetary legal entity responsible for carrying out regulatory tasks defined by the Law on Electronic Communications, including adoption and administration of implementing legislation within its competencies.

AKEP is managed by a governing council composed of five members appointed for a five year office term, by the Assembly of the Republic of Albania, on the proposal of the Council of Ministers, with the right of reappointment for one further term. The Assembly designates one of the members of the governing council as chairman, who also acts as the executive director of AKEP.

AKEP is a self-financed entity funded from the annual market supervision Ministry for Innovation and Information and Communication Technology fees paid by operators and service providers. It is required at

¹¹¹ www.ert.gov.al

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. In 2009 AKEP re-examined the current payments by operators to make recommendations on simplifying the structure and transparency of the fees paid. These proposals are expected to result in reduced administrative charges bringing them to the level necessary to cover costs, as required by Law no. 9918.

AKEP is accountable for its activities before the Assembly. At the end of each year, AKEP is required to submit to the Assembly an annual report on its activities, as well as a plan for the coming year.

In appeal procedures, AKEP decisions could be initially submitted as an administrative appeal for the review by the governing council. In this case there is a suspension of one month provided for under the Code of Administrative Procedures. Within this month the administrative appeal has to be considered and a final decision taken by AKEP. As the next step, the appeal can be brought before the Tirana District Court (the Court of First Instance).

e) Information society

The Ministry for Innovation and Information Communication Technology is responsible for information society policy and proposing information society legislation. The ministry is supported by the National Agency on Information Society (NAIS)¹¹², established by the Council of Ministers decision in April 2007 and operational from September 2007. NAIS is responsible for supporting the Minister in proposing the national strategy on the information society, drafting information society legislation, coordinating ICT projects of the government, standardising technical requirements for governmental IT equipment and providing technical assistance to other government bodies.

On January 21, 2009 the Council of Ministers approved the new national strategy on information society, which was prepared by NAIS. The Institute of Statistics (INSTAT) has started to collect information society statistics in 2010, but has not yet published results. A National Authority for Electronic Certification¹¹³ has been established under the Ministry of the Interior as a supervisory authority for electronic signatures. Albania has not designated a body responsible for network and information security in general.

AKEP is also the national domain name registry and the only registrar. Albania is one of only two countries in the region without competition between registrars.

Albania also considers establishing a Computer Emergency Response Team (CERT).

Albania has introduced into national law the provisions of the Electronic Signatures Directive, the Electronic Commerce Directive and 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 Albtelcom, the incumbent operator, Calik Enerji and the Albanian Ministry of Economy, Trade and Energy agreed on 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 Albtelcom and Eagle Mobile. The ownership functions are exercised by the Ministry of Economy, Trade and Energy.

Albanian Mobile Communications (AMC), a major mobile operator, was privatised in 2000 through the sale of 85% shares to Cosmote, a mobile subsidiary of the Greek incumbent operator. In February 2009, the government agreed to sell the rest of its stake in AMC to Cosmote, who controls following the transaction, directly and indirectly, 95% of AMC.¹¹⁴

b) Administrative independence

The Law on Electronic Communications substantially extends the powers of AKEP to issue secondary legislation and perform its regulatory functions without any intervention by the ministry or by the

¹¹² <http://www.e-albania.al/>

¹¹³ <http://www.akce.gov.al/>

¹¹⁴

http://www.cosmote.gr/cosmote/cosmote.portal?locale=en_US&_nfpb=true&_pageLabel=press_releases&path=%2FSCSDevRepository%2Fcontent%2Fen%2Fsections%2Fpressoffice%2Fpressrelease%2F240409eng.xml&breadcrumbTitle=Announcement

government. In particular, AKEP is 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 ministerial approval.

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

Since its establishment in 2008, AKEP has suffered from inadequate governance whereby some of the decisions taken by the AKEP governing council have not been implemented by the executive director (who is also the chairman of the governing council). This led to delays in implementing some of the key aspects foreseen in Law no. 9918 including number portability, local loop unbundling, carrier selection and pre-selection, licensing of spectrum for 3G mobile networks and fixed broadband wireless access.

After the Albanian general elections in June 2009, it soon became clear that the incoming government had no confidence in the AKEP governing council members. In November 2009, a proposal to dismiss all members and replace them with five new members was submitted to parliament by the Council of Ministers. The new members took up their posts in the beginning of December 2009.

The December 2009 replacement of the entire AKEP's governing council follows a similar replacement of the previous NRA governing council that took place 18 months earlier and raises concerns over the NRA independence. The procedures for these dismissals did not appear to be sufficiently clear and transparent, giving rise to concerns that they could 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. 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. However, before the entry into force of Law no. 9918 on Electronic Communications in June 2008, no effective competition had emerged in the provision of urban local services as well as international interconnection connectivity.

Law no. 9918 on Electronic Communications introduced a general authorisation regime where electronic communications networks and services can be provided without individual licences, but subject to a notification submitted to AKEP who must complete the registration within 15 days. Individual authorisations are issued by AKEP for the right to use radio spectrum and numbers.

Law no. 8410 on public and private radio and television still requires the licensing of cable TV operators. An amendment to this law has been proposed to introduce notification procedure in line with the requirements for telecommunications operators.

4. Market structure

The incumbent operator Albtelecom remains the dominant player in the provision of fixed telephony services. In the provision of international services, its market share by minutes of traffic is currently 90%, while in the provision of national services, where it faces some competition from the regional operators its market share is about 80%. Fixed lines penetration rate of 11.36% is one of the lowest among the monitored countries.

There are three mobile operators in Albania with own their network infrastructure: AMC, Vodafone and Eagle Mobile, all licensed to operate 2G mobile services in the 900 MHz and 1800 MHz bands. AMC has been operational since 1996, Vodafone since 2001. Eagle Mobile licensed in 2004 launched its commercial services in March 2008 following its privatisation in 2007. In April 23, 2009 the Albanian parliament through Law no. 10118 of April 2009 awarded the licence to the consortium led by PTK (Kosovo). It became operational only in late November 2010 under the brand name Plus.

A single 3G licence in the 2100 MHz band was awarded to Vodafone in November 2010, following a tender procedure where Vodafone offered to pay €31.4 million.

As of January 2010, mobile penetration rate reached 113%.

In the provision of internet services, several regional competitors have emerged offering broadband services over own fibre, cable and wireless networks, mainly in the major cities. The market share of alternative providers is around 45%. Fixed broadband penetration rate as of January 2010 was 3.5%, which is the lowest among the monitored countries.

5. Significant market power

Law no. 9918 on Electronic Communications provides for market analyses, the definition of relevant markets, SMP designations and the imposition of remedies on SMP operators based on the competition principles in Law no. 9121 on the Protection of Competition and on the EU regulatory framework.¹¹⁵ AKEP is required to carry out market analyses at least once every two years.

In July 2009 AKEP approved a regulation on markets analyses that defines a list of the markets to be analysed by the NRA. The list broadly corresponds to the 16 relevant markets identified in the Commission recommendation of 2003 (except international roaming and wholesale broadcasting transmission services).

In 2010 AKEP completed its analyses of most of the markets. The following operators were designated as having SMP and imposed a full set of regulatory obligations:

- retail fixed access and call services (M 1-6/2003) – Albtelecom;
- wholesale call termination in public fixed networks (M 9/2003) – Albtelecom;
- wholesale fixed call origination (M 8/2003) – Albtelecom;
- wholesale transit services (M 10/2003) – Albtelecom;
- wholesale mobile access and call origination (M 15/2003) – AMC and Vodafone; and
- wholesale call termination on individual mobile networks (M 16/2003) – AMC, Vodafone and Eagle Mobile.

AKEP also consulted on draft market analyses of retail and wholesale leased lines services (M 7, 13-14/2003) and wholesale infrastructure and wholesale broadband access (M 11-12/2003), but the final decisions are pending.

6. Competitive safeguards

The following competitive safeguards have been implemented:

- The first RIOs of the three operators with SMP (Albtelecom, AMC and Vodafone) were approved and published on February 18, 2009. Based on the recent market analysis decisions, new RIOs of Albtelecom and three mobile operators (including Eagle Mobile) have been prepared and published for consultation until December 13, 2010.
- In 2010, AKEP completed development of the cost models for model that will be used for setting cost-oriented charges for fixed and mobile services, based on Bottom-Up Long Run Average Incremental Cost (BU-LRAIC). New Albtelecom's cost-oriented charges were set from September 1, 2010 which resulted in over 100% increase at all interconnection levels. New glide paths for MTRs reductions for mobile operators with SMP calculated based on BU LRAIC model will be shortly published for consultation.
- Two major stages of rebalancing of Albtelecom's retail tariffs were carried out in several phases during 2004-2008 (for international calls) and 2008-2010 (for all call categories). Nevertheless the full tariff rebalancing has not been yet achieved. AKEP intends to complete rebalancing following a public consultation in 2011. Implementation of other competitive safeguards, such as CS/CPS and LLU that have been imposed as regulatory obligations on Albtelecom will be closely linked to tariff rebalancing process.
- Number portability in fixed and mobile networks is expected to become available in early 2011. The procurement procedures of the centralised reference database took place in September 2010.

¹¹⁵ <http://go.worldbank.org/BKB2R8ZAT0>

7. Universal service and consumer issues

Under Law no. 9918 on Electronic Communications, the NRA can designate one or more universal service providers based on a public tender procedure, subject to the Ministry approval. The NRA can also establish a universal service fund to compensate designated providers where the net cost is negative. No designation has yet taken place and no fund has been established. The whole policy area of universal service and consumer rights is being re-considered by the ministry. If the policy proposals are adopted, implementation will be brought into line with EU requirements.

8. European Union

In November 2010, the European Commission did not publish its usual annual progress report, but instead its opinion on Albania's application for EU membership and an analytical report accompanying this opinion.¹¹⁶

The Commission noted, that Albania's legislation in the area of electronic communications is partly aligned with the *acquis*, but effective implementation of legislation is lagging behind and will require capacity building in the national regulatory authorities and guaranteeing their independence. The circumstances surrounding the dismissal of AKEP governing council members in 2008 and 2009 casted doubts over AKEP's effective independence. A number of implementing regulations were adopted late and Albania did not fulfil its obligations under the Stabilisation and Association Agreement to adopt the electronic communications *acquis* within the deadline of April 2010.

According to the Commission, the legislation lays down the conditions for liberalisation of the electronic communications and services market. Tariff rebalancing is applied, and there is high mobile telephony penetration and some competition in the market of broadband internet access. However, competition in the fixed telephony market is limited and key competitive safeguards such as local loop unbundling, carrier selection, carrier pre-selection, cost orientation of wholesale charges and number portability are lacking.

Legislation on information society services is progressively being approximated to the *acquis*, but the Commission noted shortcomings with regard to data retention, unsolicited communications, itemised billing and conditional access.

9. Outlook

Despite 10 years of progressive market liberalisation, Albania remains underinvested in terms of telecommunications infrastructure, with very low fixed and broadband service penetration. Award of a single 3G licence may have negative implications for competition in the mobile sector and take up of mobile broadband in general.

The regulator has made major progress in completing market analyses and implementing regulatory cost accounting models. However, most of the necessary competitive safeguards, including number portability, CS/CPS, LLU are still not in place. The key priorities are completing the tariff rebalancing process and the implementation of competitive safeguards and regulatory obligations imposed on operators with SMP.

¹¹⁶ Analytical Report accompanying the Commission Opinion on Albania's application for membership of the European Union. [SEC\(2010\)1335](#).

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. The scope of the law includes telecommunications, radio and TV broadcasting, cable television, and associated services and facilities.

b) Council of Ministers and Ministry of Communications and Transport

The Council of Ministers is responsible for adopting policies for communications. The Ministry of Communications and Transport drafts policies and prepares primary and secondary legislation. Under the Law on Communications, the Council of Ministers is also responsible for defining the scope of the universal service, designating the providers and establishing the funding mechanism, based on proposals of the NRA.

Telecommunications Sector Policy adopted by the Council of Ministers is the main policy document that sets out the priorities for telecommunications services and infrastructure development, defines specific regulatory objectives and an action plan for their implementation by the Ministry of Communications and Transport and the NRA. Following the expiry of the previous sector policy in December 2007, adoption of the new policy by the Council of Ministers was delayed by over a year. This resulted in a regulatory vacuum, as no important decision were taken, addressing for example, 3G licences, number portability, LLU implementation.

The new Telecommunications Sector Policy for the period from 2008 to 2012 was finally approved by the Council of Ministers, with a one year delay, on December 18, 2008.¹¹⁷

c) Communications Regulatory Agency

The Law on Communications establishes the Communications Regulatory Agency (RAK) as a functionally independent institution, responsible for regulating broadcasting and public telecommunications networks and services. Its responsibilities include licensing, tariffs, interconnection issues and conditions for the provision of common national and international communications facilities; planning, co-ordinating, allocating and assigning the radio frequency spectrum; management of the numbering plan and assignment of numbering resources to telecommunications operators.

Strategic and policy implementation issues are decided by RAK Council. It consists of seven members nominated by the Council of Ministers and appointed by the Parliament. RAK 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 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 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 RAK Council and the Director General have terms of four years and can be re-appointed only once.

Appeals against decisions made by the Director General can be submitted to RAK Council who 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 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 authorisations, numbering and spectrum.

¹¹⁷ <http://www.rak.ba/bs/telecom/sector-policy/?cid=2387>

d) Information society

The Ministry of Communications and Transport is in charge of information society policy. The plans to establish an Agency for Development of the Information Society of Bosnia & Herzegovina (ARID) at the state level so far have not been successful.

Information society statistics are not available and no decision has been taken on the body responsible for it at the state level. If ARID were established, the statistical institutes would become in charge of data collection and ARID for distributing the results.

Bosnia & Herzegovina also has not designated a body responsible for network and information security. The Law on electronic communications obliges operators to ensure network security, but the legal framework does not penalise illegal interception. The Convention on Cybercrime was ratified, but the Criminal Code has not yet been amended accordingly. None of the crimes listed in the Convention is included in the Criminal Code of Bosnia & Herzegovina.

Bosnia & Herzegovina has transposed the Electronic Commerce Directive and the Electronic Signatures Directive, but has not established a supervisory body for electronic signatures. No provider currently offers qualified certificates. Furthermore, market access for certification service providers issuing qualified certificates is further restricted by the legal requirement to issue notification to a supervisory body which has not been established.

The University Teleinformatic Centre is the national domain name registry.

Republika Srpska considers information technologies as being an entity competence. It adopted its own laws on electronic commerce, electronic signature and electronic documents and established its own Agency for Information Society.¹¹⁸

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 & Herzegovina retains 90% ownership in BH Telecom (Sarajevo) and 50.10% in Hrvatske Telekomunikacije – HT (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 65% of Telekom Srpske with a bid of €646 million. The privatisation was finished in July 2007. Twenty percent of the remaining shares are traded on the national stock exchange, 10% is held by a pension fund and 5% by a restitution fund.

b) Administrative independence

The Law on Communications provides for administrative and financial independence of RAK. In particular, it states 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.

Under the Law on Communications RAK Council was also authorised 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, however, limited RAK's independence and administrative capacity by bringing the salary levels of its employees within the pay scales for civil servants. Under this law RAK must follow the established scales for the basic salary levels and is only able to increase salaries of its employees through an additional "regulatory" bonus scheme.

A further factor that undermines the independence of RAK is the present uncertainty over the appointment of the Director General and the nomination of RAK Council members. After the mandate of the Director General had expired in 2007, RAK Council 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 new Director General. So far, no new procedure has been initiated and no new Director General of RAK has been appointed. The present Director General retains his position without the formal approval of the Council of Ministers. The nomination of RAK Council members, which was due to be finalised in April 2009, also remains unresolved.

¹¹⁸ <http://www.aidrs.org/>

With delays in policy approval and still with no appointed of RAK management, the adoption of several decisions on broadcasting and telecommunications prepared by the RAK has been delayed. This affects negatively the dynamics of competitive development and hampers RAK administrative capacity.

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 administrative charges for fixed and mobile telephony networks and services are BAM 1,000 (€511) and BAM 500 (€255) for internet services. The annual fees depend on the scope of provided services:

- BAM 450,000 (€230,080) for public fixed telephone services with own network infrastructure;
- BAM 55,000 (€26,000) for public fixed telephone services without own networks;
- BAM 550,000 (€281,200) for public mobile network operators; and
- BAM 4,000 (€2,100) for ISPs.

The sector policy provides for the future transition to a general authorisation framework.

4. Market structure

The specific aspect of Bosnia & Herzegovina is the existence of three regional incumbent operators on each of the three ethnic territories: BH Telecom based in Sarajevo, Telekom Srpske in Banja Luka and Hrvatske Telekomunikacije in Mostar. Each of the three incumbent operators operates its own public fixed telephony network. Fixed telephony penetration is around 25 lines per 100 population.

The incumbents retain dominant position in the provision of public fixed telephony services with combined market share of 96%, as of January 2010. Few new entrants have become operational since liberalisation of the sector. Eight alternative fixed network operators have started offering voice telephony services based on own infrastructure.

There are three 2G mobile networks in Bosnia & Herzegovina that are also operated by the three incumbent operators, but offer their services nation-wide. All of them are licensed to operate in both the 900 MHz and 1800 MHz bands. In March 2009 RAK issued three 3G/UMTS licences, with 15 years validity period, to the three existing mobile operators without any tender procedure. Each will pay €15 million over seven years for the 3G licence, after a two-year grace period. Mobile penetration is 85%, while mobile broadband services are still at a very early stage of deployment.

The level of fixed broadband penetration, as of January 2010, was 7.6%. The incumbent operators dominate over more than 90% of xDSL provision. At the same time, cable broadband and wireless broadband networks operating in the unlicensed 2.4 GHz and 5 GHz present a strong competitive alternative: 40% of retail broadband is provided over alternative infrastructures.

5. 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.

In December 2009 RAK designated¹¹⁹ the three incumbent operators, BH Telecom, Telekom Srpske and HT Mostar as having SMP in the following three markets: public fixed telephone networks and services, public mobile telephony services and leased lines. The scope of regulatory obligations includes: non-discrimination, cost orientation, transparency, access and interconnection, price control, reference offer, and – for fixed networks – provision of CS/CPS.

¹¹⁹ RAK decision of December 28, 2009 (Official Gazette of BiH 05/2010)

6. Competitive safeguards

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

- Tariff rebalancing is still at an early stage. RAK adopted in March 2009 a model for the rebalancing of tariffs for telephony services from 2010 until 2012.
- CS/CPS was introduced in July 2007 but remains at an early stage with six alternative operators providing CS services and one operator – CPS services.
- RIOs for the three fixed incumbent operators are available since November 2005.
- RIOs of mobile operators are not available. However RAK took a decision in 2010 to reduce by half fixed-to-mobile termination tariffs.
- RAK regulations on LLU were adopted in 2008. The first RUOs were published in January 2010 and four agreements have been negotiated so far.
- Number portability in fixed and mobile networks is expected to be implemented in 2011.
- The sector policy foresees adoption of the necessary authorisation framework and amendment of RIOs of the mobile operators to enable market entry for MVNOs.

7. 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 included in the licences of the three incumbent operators. This covers provision of the following services: connections to the public fixed telephone network at a fixed location and access to public fixed 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 was submitted by RAK for approval by the Council of Ministers in December 2008, but its adoption is still pending.

8. European Union

In November 2010, the European Commission reported¹²⁰ little progress in the area of electronic communications. The three incumbents operated as de facto monopolies in their geographical areas. The Commission noted as a positive development the guidelines for mobile virtual network operators and a decision that halved fixed-to-mobile termination charges. However, price squeezes still exist and steps to rebalance tariffs are at an early stage.

The challenges to RAK's independence have intensified, as the law on ministries and administrative bodies was amended to include RAK. According to the Commission, this is not in line with the relevant EU *acquis* and the national legislation, since RAK's independence is enshrined in the Law on communications. The Commission also criticised that RAK has been without a Director General since 2007 and that no decision was taken on the nomination of RAK Council members whose mandate ended in April 2009. The administrative capacity of the Ministry of Transport and Communications remained weak.

With regard to information society services, the Commission also reported little progress, as the state-level agency on information society has not been established. Implementation of the Law on electronic signatures is also slow.

¹²⁰ Bosnia and Herzegovina 2010 Progress Report. [SEC\(2010\)1331](#).

9. Outlook

Bosnia & Herzegovina needs to undertake stronger efforts to align its legislation with the EU *acquis*. So far no concrete plans have been made to align its legislation with the EU 2003 regulatory framework.

An EU funded project to support RAK has started in 2010. This project was originally supposed to also support Bosnia & Herzegovina in harmonising its laws, in particular the Law on Communications, with the EU regulatory framework, but this task is no longer included in its scope.

There is also unclear constitutional situation with regard to legislation on electronic commerce and electronic signature with parallel laws at the federal level and in Republika Srpska. The unclear distribution of legislative competencies between the state and the entities is slowing down the adoption of new laws.

Among the key priorities for the sector remain the implementation of number portability and LLU, tariff rebalancing, adoption of the universal service framework, licensing of the 3.5 GHz spectrum band for fixed wireless access. Few new entrant operators have become operational since the liberalisation of the market. The three incumbent operators still have close to 100% market share.

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 and Council members of RAK and strengthening of the institutional capacity of both the NRA and the Ministry of Transport and Communications.

F. Montenegro

1. Legal and institutional framework

a) Law on Electronic Communications

The Law on Electronic Communications that was adopted on July 29, 2008 and entered into force on August 27, 2008, defines the legal and institutional framework for the electronic communications sector, 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.¹²¹ 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
- review of the NRA decisions subject to the administrative appeal procedures.

c) Agency for Electronic Communications and Postal Services

The Agency for Electronic Communications and Postal Services (EKIP) is established as a national regulatory authority, functionally independent of all entities operating electronic communications networks or providing services.

Initially founded in 2001 as a national regulator for telecommunications sector, its responsibilities were extended in 2005 to cover postal services. Under the Law on Electronic Communications of 2008 the NRA also took over the task of spectrum assignment for the broadcasting sector. EKIP is now the single regulatory body responsible for spectrum assignments in both telecommunications and broadcasting sectors, while the Broadcasting Agency is only responsible for broadcasting content issues. To be able to perform these new responsibilities, EKIP also took over part of the staff and the fixed assets of the Broadcasting Agency.

The new law changes the management structure of the NRA. Previously, the head of the NRA was 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 NRA is governed by the Council, consisting of the President and four members, while its professional services are managed by the Executive Director. The Council is a decision making body of EKIP that adopts its statutes, internal rules and procedures, approves its work plan, financial plan and annual report presented to the government, and adopts the regulatory measures and the decisions of the NRA. The Executive Director is responsible for organising and managing the professional service of the NRA.

The Council is appointed by the government upon the ministry proposal for a 5 years term of office. The Executive Director is appointed by the Council for a 4 years term of office. Neither the Council members, nor the Executive Director may hold office for more than two consecutive terms.

On December 11, 2008 the government appointed the Council of the NRA. The President and three of the Council members are engaged as full-time employees, and one member – part-time. On January 21, 2009, the Council appointed the former director of the NRA as the new Executive Director of EKIP.

EKIP is established as a self-financing entity, funded from three main sources: administrative fees, numbering and spectrum fees. The amount of fees to be paid to the NRA budget by authorised operators and service providers is approved annually by the government after the NRA has presented its financial plan and proposed fees. If the funds collected by the NRA exceed its expenditure for a fiscal year, the law no longer requires transferring the surplus to the state budget but allows carrying it over in the next year's budget.

¹²¹ <http://www.vlada.cg.yu/eng/minsaob/>

The new law has modified the appeal system for EKIP decisions. If in the past the decisions of the NRA 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 the review of the NRA decisions in the administrative appeal procedure, before filing an appeal before the court.

d) Information society

The Ministry for Information Society is responsible for e-government, information society strategy and IT infrastructure. Its competencies include information security policy and electronic signatures. In February 2009 the strategy for Information Society development of Montenegro for 2009–2013 was adopted.¹²² The ministry considers establishing a Computer Emergency Response Team (CERT).

The Statistical Office of Montenegro (MONSTAT) has started a pilot project to collect information society statistics and plans regular research based on Eurostat methodology starting from 2011.

The Council for “.me” domain has been established by a government decision. It decides on the domain name policy and selects the agent for the registry. Montenegro has a particularly high number of registrars (123) and issued domain names (over 400,000) as “.me” domain names are of high interest for English speaking communities.

Montenegro has transposed the Electronic Commerce Directive and the Electronic Signatures Directive. A law on ratification of the Convention on Cybercrime has been adopted. Most crimes listed in the convention are already considered as criminal offences in the Criminal Code.

In 2010 Montenegro adopted several new laws, including a new Law on electronic media, which is largely aligned with the Audiovisual Media Services Directive, and amendments to the laws on electronic communications, on electronic signature, on electronic commerce and on information secrecy.

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 Telekom, a Hungarian subsidiary of Deutsche Telekom. Private investors hold the remaining 23.47% of the shares which are listed on the stock exchange. The government stake in Promonte, a major mobile operator, now owned by the Norwegian operator Telenor, was sold in 2001.

b) Administrative independence

The Law on Electronic Communications 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 EKIP.

However, the procedures for the appointment and the dismissal and the members of EKIP Council through a government decision raise serious concerns about the administrative independence of the NRA. Another factor undermining the NRA independence is the role of the ministry as an appellate body for EKIP decisions along with its powers under article 130 of the Law on Electronic Communications to perform “supervision of legality and purposefulness” of the NRA activities.

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.

The Law on Electronic Communications introduced a general authorisation regime where electronic communications networks and services that do not require the use of limited resources can be provided without individual licences. These services can now be provided subject to a notification submitted to EKIP who must complete the registration within seven days. The one-off registration fee is set at €1,000. Individual authorisations are issued by EKIP for the rights to use radio spectrum and numbers.

¹²² <http://www.gov.me/files/1235731125.pdf>

4. Market structure

The fixed telephony market continues to be dominated by the incumbent operator Crnogorski Telekom that controls over 98% market share. There is only one alternative fixed network operator, m:tel, owned by the Serbian incumbent Telekom Srbija. Following several tender procedures, in 2007-2008 the NRA issued eight licences for the provision of VoIP services and five for FWA services in the 3.4-3.8 GHz band. So far, only five alternative service providers are commercially active. Fixed network penetration is around 28 lines per 100 population.

In practice, competition has only emerged in mobile networks, with the market entry of Promonte in 1996, and T-Mobile, the incumbent's mobile subsidiary in 2000 (Monet, at that time). A third mobile operator, m:tel, entered the market in 2007 and quickly built up a market share comparable to the two established operators. All three operators have been issued spectrum licences for provision of 2G services in the 900 MHz and the 1800 MHz bands, and 3G services in the 2100 MHz band. In 2010, Montenegro reported over 200% mobile penetration and 23% penetration of mobile broadband.

Fixed internet and broadband is also dominated by the fixed incumbent operator. Fixed wireless access and cable broadband emerged as competitive alternatives, but are still at an early stage of deployment. Fixed broadband penetration rate was 8.27% as of January 2010.

5. Significant market power

The Law on Electronic Communications of 2008 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 EU 2003 regulatory framework. Under the transitional provisions of article 143 of the Law on Electronic Communications, the regulator was required to complete its first market analysis within one year from the entry into force of the law, i.e. by August 27, 2009.

In practice, the first round market analysis was completed in November 2010. The markets analysed by EKIP correspond to the seven relevant markets of the 2007 Commission recommendation on relevant markets. The following operators were designated as having SMP and imposed a full set of regulatory obligations:

- retail fixed access (M 1/2007) – Crnogorski Telekom;
- wholesale fixed call origination (M 2/2007) – Crnogorski Telekom;
- wholesale call termination in public fixed networks (M 3/2007) – Crnogorski Telekom and m:tel;
- wholesale infrastructure access (M 4/2007) – Crnogorski Telekom;
- wholesale broadband access (M 5/2007) – Crnogorski Telekom;
- terminating or trunk segments of leased lines (M 6/2007) - Crnogorski Telekom;
- wholesale call termination on individual mobile networks (M 7/2007) – T-Mobile, Promonte and m:tel.

6. Competitive safeguards

Only a few of the key competitive safeguards have been implemented in Montenegro.

- The first RIO of Crnogorski 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. New RIOs of the two fixed operators with SMP with interconnection prices set based on a benchmarking methodology will be implemented following the recent market analyses.
- No RIOs have been published by mobile operators with SMP. New RIOs of the three MNOs with SMP with MTRs set based on a benchmarking methodology will be implemented following the recent market analyses.
- CS/CPS regulation was introduced in December 2007 and applies to both fixed and mobile networks. However, only CS services are available in practice.
- Number portability in fixed and mobile networks has to be implemented by August 27, 2011.
- No clear deadline has been established for the implementation of local loop unbundling.

Following the recent market analyses, the NRA imposed a full set of regulatory obligations including retail price controls, different forms of wholesale access obligations covering interconnection, CS/CPS, WLR, LLU, access to ducts infrastructure and WBA, and wholesale price controls based on benchmarking.

7. Universal service and consumer issues

The Law on Electronic Communications provides the legal basis for the universal service. Under the article 144 of the Law on Electronic Communications the NRA was required within six months from the entry into force of the law to adopt the necessary regulations and initiate tender procedure for the designation of the universal service provider.

In practice the regulatory framework for universal service was completed in September 2010. The government ordinance defines the minimum set of services within the universal service scope as comprising the following elements to be available at affordable price:

- Access to public telephone network, regardless of the used technology, at a fixed location enabling access to publicly available telephony services, including access to all call categories and functional internet access.
- Functional internet access has been defined as a broadband connection enabling minimum speed of 144 kbps. The definition of functional internet access will be reassessed once every two years taking into account technological progress and prevailing technologies.
- Comprehensive telephone directory and directory enquiry services.
- Provision of public payphones.
- Equivalent access to publicly available telephone services for disabled end-users and users with special social needs, including access to emergency calls services and directory services.

On October 25, 2010 EKIP launched a public tender procedure for the designation of universal service providers, inviting offers until December 20, 2010.

8. European Union

In November 2010, the European Commission did not publish its usual annual progress report, but instead its opinion on Montenegro's application for EU membership and an analytical report accompanying this opinion.¹²³

The Stabilisation and Accession Agreement came into force in May 2010 and obliges Montenegro to adopt the EU *acquis* in the sector of electronic communications networks and services within three years, i.e. by May 2013. The Commission welcomed the amendments to the Law on electronic communications and the new Law on electronic media, but concluded that their actual implementation cannot be assessed as they came into force in August 2010. Implementation of the Law on electronic communications, adoption of secondary legislation and enforcement of regulatory decisions were still at early stages.

The Commission expressed concerns about EKIP's independence, in particular about the appointment of the EKIP Council members directly by the government and also about the comprehensive supervisory powers exercised over EKIP by the Ministry of Maritime Affairs, Transportation and Telecommunications. The administrative capacity of EKIP to adopt and implement regulatory decisions is limited; the administrative capacity of the Ministry is even more limited.

With regard to information society services, the Commission noted that the Ministry for Information Society is in charge of this policy area, but the administrative capacity of the ministry is fairly limited. Legislation on electronic signatures and electronic commerce were amended in July 2010, but the Law on electronic signatures needed further alignment with the Electronic Signatures Directive.

9. Outlook

The level of competition, in particular in fixed voice telephony and broadband services, remains limited. Among the key priorities for the sector is the implementation of key competitive safeguards, including number portability and LLU, CS/CPS and tariff rebalancing.

¹²³ Analytical Report accompanying the Commission Opinion on Montenegro's application for membership of the European Union. [SEC\(2010\)1334](#).

The regulator has made a significant progress in completing its first ever market analysis in 2010 and now has to focus on effective implementation and enforcement of the imposed regulatory obligations. Another area that needs to be addressed by the regulator is implementation of cost accounting methodologies for price control of wholesale tariffs.

A prerequisite for effective functioning of the national regulatory and policy-making authorities is the strengthening of the institutional capacity of both, the NRA and the Ministry of Maritime Affairs, Transportation and Telecommunications. Furthermore, the independence of EKIP also needs to be improved, including an introduction of an independent appellate body.

G. Serbia

1. Legal and institutional framework

a) Law on Electronic Communications

The new Law on Electronic Communications adopted by the National Assembly on June 29, 2010 defines the legal and institutional framework for the electronic communications sector, including the responsibilities of the government, the relevant ministry and the national regulatory authority. It replaced the previous Telecommunications Law of 2003 and is aimed at approximating the Serbian legislation to the 2003 and partly the 2009 EU regulatory framework.

Within one year from the entry into force of the new law, i.e. by June 30, 2011, the necessary implementing legislation has to be adopted: 10 bylaws by the Ministry of Telecommunications and Information Society and 35 bylaws by the regulator.

b) 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 electronic communications, the ministry is responsible for:

- drafting national strategy for electronic communications and relevant legislation as well as harmonisation of the national legislation with the EU framework;
- 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;
- executing state ownership functions in Telekom Srbija through the Public Enterprise of PTT Serbia.

Under Article 23, Law on Electronic Communications, the NRA is required, before publication of its proposed bylaws and secondary acts, to get a non-binding opinion from the ministry on the compliance of the proposed regulation with the constitution and relevant laws. The ministry shall present an argued proposal on how to bring the proposed regulation in compliance with the law.

c) Republic Electronic Communications Agency

The Republic Electronic Communications Agency (RATEL) is a national regulatory authority for electronic communications. 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 strategy and the regulatory framework for electronic communications, adopting secondary legislation within its competencies and monitoring the compliance of operators and service providers with legal requirements.

RATEL is managed by the managing board composed of a chairman and four members who are appointed and dismissed 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 who is responsible for the administration and operational issues.

The managing board is responsible for adoption of secondary legislation, decisions and other general measures within the NRA competencies, while the director adopts decisions on specific rules and obligations applicable to individual operators and end-users.

RATEL is a self-financed and non-profit legal entity with its own budget funded from annual licence and authorisation fees, 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.

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

d) Information society

The Ministry for Telecommunications and Information Society¹²⁴ 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 signatures.

The Serbian government adopted in July 2010 a new strategy for the development of the information society, and in September 2010 a new strategy on electronic communications, both covering the timeframe until 2020. Serbia has also adopted strategies on broadband access, switchover from analogue to digital broadcasting, electronic government and an action plan for the implementation of the eSEE Agenda+.

The National Information Technology and Internet Agency¹²⁵ is subordinate to the ministry and responsible for the monitoring of electronic government development and standardisation in the fields of ICT, ICT security and internet use. The Statistical Office is responsible for information society statistics. It publishes comprehensive annual statistics that are aligned with Eurostat methodology.

RNIDS, a non-profit association of internet service providers and academic institutions is the national domain name registry. Domain name policy is not regulated by law, but is set out in RNIDS' general terms and conditions.

Serbia has transposed the Electronic Signatures Directive. A law on electronic commerce, transposing the Electronic Commerce Directive, came into force in June 2009. Serbia also adopted a law on electronic documents. In March 2009 Serbia ratified the Cybercrime Convention. However, most crimes listed in the convention have already been considered as criminal offences in the Serbian Criminal Code before ratification.

The new law on electronic communications introduces a mandatory 12-months traffic data retention requirement for providers of electronic communications and services. These new provisions, however, have been challenged at the constitutional court.

2. Regulatory independence

a) Privatisation and operational independence

The government currently controls 80% of Telekom Srbija and retains a 'golden share' with the power to veto all the important decisions of the company. The ownership function is exercised through the Public Enterprise of PTT Traffic "Srbija", commonly known as PTT, or the Post Office, while the government unit responsible for the 'golden share' is not explicitly defined.

The Greek incumbent operator, OTE controls the remaining 20% of the capital in Telekom Srbija.

In October 2010, the Serbian government announced a tender procedure for the 51% stake in Telekom Srbija, inviting expressions of interest until November 26, 2010.

b) Administrative independence

According to the article 7 of the new Law on Electronic Communications, the NRA is functionally and financially independent of government authorities, organisations and entities. However, under the same article, the ministry is authorised to supervise the lawfulness and appropriateness of functioning of the NRA in performing its duties.

The statute of RATEL, approved by its Managing Board regulates its internal organisation and procedures. The annual financial plan and the annual financial statement of the NRA, however, must be approved by the government. 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. Nevertheless, in 2009 the regulator had to comply with a temporary six-months salary limits imposed on all employees in the public sector as part of anti-crisis package.

One factor undermining the NRA administrative independence is the systematic delays in approval of its management board members. The mandates of the current board members have expired, but no new appointment has taken place within the timeframe foreseen by the new law.

¹²⁴ <http://www.mtid.gov.rs/>

¹²⁵ <http://www.rzii.gov.rs/>

3. Market access and authorisations

Under the Telecommunications Law of 2003, the fixed incumbent operator was granted exclusive rights 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 remained until December 2008 the only operator authorised to interconnect with international telecommunications networks and until February 2010 – the only public fixed telephony network operator.

The new Law on Electronic Communications foresees the introduction of general authorisation regime that would replace the previous regime that involved complex tender procedures for all categories of electronic communications services provided over own infrastructure. However, for public fixed telephony networks and services the implementation of general authorisation regime is foreseen only from January 2012.

Serbia still has a major tariff rebalancing problem, which makes the implementation of full liberalisation problematic.

4. Market structure

Until very recently, Telekom Srbija remained the only licensed provider of public voice telephony services over its own fixed network infrastructure. As of January 2010, fixed network penetration was 42%, the highest among the monitored countries. At the same time, Serbia still has quite a significant number of multiple party lines, in particular in rural areas.

Competition in the provision of public fixed voice telephony services only emerged in 2009, when an FWA licence in the 450 MHz band enabling provision of voice telephony was awarded to Orion Telecom (Media Works), a major alternative ISP. In February 2010, a second licence for provision of public fixed telecommunications networks and services was issued to Telenor following a public tender procedure with the bid of €1.05 million. It was also agreed not to allow similar new licences until the end of 2011, thereby keeping competition in the sector limited despite the adoption of the new primary law which envisages full liberalisation.

In the mobile market, two operators, Telenor and VIP mobile (owned by Telekom Austria) are providing services in competition with the incumbent's mobile subsidiary. All three operators have been issued spectrum licences for provision of 2G services in the 900 MHz and the 1800 MHz bands, and 3G services in the 2100 MHz band. Market access conditions for new entrant mobile operators remain problematic as obtaining construction permits for network rollout is subject to complex bureaucratic procedures. The mobile penetration is 132%, while the penetration of mobile broadband – 1.3%.

To certain extent, there has been some competition in provision of internet and broadband services. The level of broadband penetration is 8.02%, as of January 2010. At the infrastructure level, the incumbent is facing competition from cable and FWA networks that currently hold over 40% market share. In the provision of xDSL services, the incumbent controls 67% of the retail market, however, it supplies 100% of the bitstream access connections to alternative operators in the wholesale market.

5. Significant market power

Under the previous Telecommunications Law, RATEL had the 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. 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.

The new Law on Electronic Communications 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 EU 2003 regulatory framework. It also requires RATEL to complete its first market analysis of the seven relevant markets according to the 2007 Commission recommendation within one year from the entry into force of the law, i.e. by July 2011.

6. Competitive safeguards

The key competitive safeguards foreseen under the EU 1998 regulatory framework so far have not been implemented in Serbia.

The first steps towards tariff rebalancing were undertaken only recently. In October 2008 the NRA approved an increase by up to 100% in monthly rentals and impulse charges, as well as uniform call prices for residential and business customers. Further increases to the incumbent's retail tariffs were approved in 2010.

The first RIO was prepared by the fixed incumbent operator in August 2008.¹²⁶ In March 2009, Telekom Srbija published a separate RIO for interconnection with VoIP providers.

The regulation on number portability in mobile networks sets January 1, 2011 as the implementation deadline. However, no specific deadline has been set for the implementation of number portability in fixed networks, neither for the implementation of other competitive safeguards, such as CS/CPS and LLU.

On June 4, 2010 RATEL ruled on interconnection, LLU and infrastructure access conditions between Telenor and Telekom Srbija. The requirement to provide LLU access was imposed on Telekom Srbija under specific provisions set out in the bylaw on minimal conditions for issuing the second fixed network licence. The two operators were required to reach an agreement by September 1, 2010. The agreement, however, is still pending.

7. 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.

In July 2009 the ministry, on the proposal of RATEL, defined the initial scope of universal services as comprising on a technology neutral basis:

- access to a public fixed telephone service enabling functional internet access at a speed equivalent to a dial-up connection;
- special measures for disabled and socially disadvantaged users;
- free access to emergency services;
- public payphones and access to telephone directory and directory enquiry services.

On March 12, 2010 RATEL designated the four operators as US providers based on article 50 of the previous Law on Telecommunications. The designation applies to all licensed providers of public fixed and mobile telephony services and fixed wireless access services: Telekom Serbia, Telenor, VIP mobile and Orion Telecom.

8. European Union

In November 2010, the European Commission noted¹²⁷ some progress in the area of electronic communications and welcomed in particular the new Law on electronic communications and the new strategy adopted in September 2010. RATEL has adopted a decision on designation of universal service providers and rules on number portability that will enter into force in 2011.

However, the Commission also noted that few competitive safeguards have yet been introduced and tariffs are not rebalanced. Market competitiveness is still limited. A second national fixed telephony licence was issued in February 2010, but further market entry will not be possible before the end of 2011, in spite of adoption of the new law. Administrative capacity of both RATEL and the ministry needs to be strengthened.

The Commission reported some progress with regard to information society services. The law on electronic commerce and implementing legislation regarding electronic documents have been adopted and two providers offering qualified certificates entered the market. The government also adopted several strategy documents on the information society in general, e-government, broadband and digital switchover. However, implementing rules need to be adopted to ensure that the digital switchover takes place in time.

¹²⁶ http://www.ratel.rs/editor_files/File/Regulativa/Pravilnici/Pravilnik_o_interkonekciji.pdf

¹²⁷ Serbia 2010 Progress Report. SEC(2010)1330.

9. 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.

As tariffs have not been rebalanced and other competitive safeguards such as number portability, CS/CPS and local loop unbundling have not been introduced, only few market players have so far been able to enter the Serbian market. Furthermore, in spite of adoption of the new law based on the EU 2003 and 2009 regulatory framework, further competitive market entry in fixed telephony market will not be possible before 2012.

H. Kosovo (under UN Security Council Resolution 1244)

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 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. The new constitution for the Republic of Kosovo approved by the Assembly in April came into force on June 15, 2008. However UNSCR 1244 is still in force, which means that ultimate responsibility for the administration of Kosovo still falls on the SRSG, even after the proclamation of independence.

The November 2008 report issued by the United Nations Secretary General (UNSG) led to the full deployment of the EU rule of law mission (EULEX) under the umbrella of UN authority. In March 2009, the UNSG noted the accelerated process of reconfiguring the UN mission in Kosovo (UNMIK) with a view to adapting its functions to the changed circumstances on the ground. The June 2009 report indicated that the remaining functions of UNMIK, reduced to about 10% of its strength compared to 2008, would include monitoring, reporting and facilitating, where necessary and possible, arrangements for Kosovo's international engagement.

Kosovo is participating in the EU Stabilisation and Association Process. In February 2009, the European Parliament adopted a resolution underlining the EU commitment to playing a leading role in ensuring the stability of Kosovo and the Western Balkans as a whole and reiterated its willingness to assist the economic and political development of Kosovo by offering clear prospects for EU membership.

In June 2009, Kosovo became a member of the International Monetary Fund and the World Bank. To date, Kosovo has been recognised by 72 countries, including 22 out of the EU 27 member states.

b) Telecommunications Law

The Telecommunications Law passed by the Assembly in December 2002 and approved by the SRSG on May 12, 2003 as UNMIK Regulation 2003/16, remains the principal legal instrument that defines the legal and institutional framework for the telecommunications sector in Kosovo.¹²⁸

The declaration of independence facilitated the anticipated transfer UNMIK responsibilities in the telecom sector to the national institutions. In particular, the supervision of PTK has been transferred to the Ministry of Transport and Communications, while spectrum management functions to TRA. On June 13, 2008 the Assembly adopted a set of amendments to the Telecommunications Law removing all references to UNMIK, clarifying certain institutional aspects and strengthening the independence of the NRA.

c) Ministry of Transport and Communications

The Ministry of Transport and Communications (MTC)¹²⁹ is responsible for developing policies and drafting legislation for the telecommunications and ICT sectors. In the field of telecommunications, the ministry also supervises the operations of the state-owned incumbent operator, PTK.

d) Telecommunications Regulatory Authority

The Telecommunications Regulatory Authority (TRA) was established under the Telecommunications Law of May 2003 and began operations in January 2004. TRA is responsible for implementing the telecommunications sector policy in compliance with the relevant legislation, the adoption of regulations

¹²⁸ http://www.unmikonline.org/regulations/2003/RE2003_16%20.pdf

¹²⁹ <http://www.mtpt.org/>

under the Telecommunications Law, issuing licences and authorisations for the provision of telecommunications networks and services, management of the numbering and spectrum resources.

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, in consultation with the Prime Minister, designates one member of the Board to be Chairman, who is responsible for administrative and operational issues.

The new TRA Board was appointed by the Assembly on September 17, 2009, nine months after the mandate of the previous Board had expired.

TRA is established as a self-financed and non-profit legal entity, with the main sources of funding based on fees collected under the Telecommunications Law, including authorisations, licensing, numbering and spectrum fees. In practice, however, TRA does not have an independent budget of its own and is subject to the same financial constraints and procedural rules as any other administrative institution funded from the state budget.

Official acts and decisions of TRA can be appealed before the Administrative Court.

e) Information society

The Ministry of Transport and Communications is in charge of 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 Administration.

A national strategy for information society for the period of 2006 to 2012 was adopted in 2006. The Ministry of Transport and Communications prepared a new sector strategy including electronic communications and broadband policy and expects its approval in due course. A working group is preparing a strategy for digital switchover.

The Statistical Office is responsible for information society statistics, but it remains unclear when information society statistics will be available and how they will be aligned with Eurostat methodology. 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, which was adopted in 2002, 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 communications¹³⁰. A new data protection law and a law on prevention and fight of the cybercrime have been adopted in 2010. Kosovo has not ratified the Convention on Cybercrime, but the new law is aligned with the provisions of the 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. Now the state ownership and control functions are exercised by the Ministry of Transport and Communications which is also in charge of telecommunication sector policies.

PTK privatisation was addressed in the Telecommunications Sector Policy, adopted by the government in June 2007. As part of the agreement between Kosovo and IMF, the government announced plans to privatise PTK in 2010. In November 2010 parliament adopted a strategy for privatisation of 75% stake in PTK.

¹³⁰ 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.

b) Administrative independence

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 had been subject to political and administrative interference.

Furthermore, some provisions of the law on public finances have been interpreted as barring TRA from collecting and keeping its own funds and from having its own bank account. As a result, TRA is 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 has been unable to manage its funds independently. Furthermore, under the treasury payment procedures, the salaries of TRA staff are linked to civil servant pay scales, making it impossible for TRA to decide independently on salaries and thus being unable to recruit and to retain qualified professionals.

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.

Although the first authorisations to three national ISPs were issued in May 2005, a comprehensive authorisation framework for telecommunications operators was adopted only in September 2005. This framework represents a system of class licences with specific conditions and licence fees set depending on the specific service. The one-off licence fees are ranging from €87,500 for national public fixed telephony services, €50,000 for international telecommunications facilities and €35,000 for international telecommunications services to €5,000 for internet services.

PTK maintained its exclusive right over access to international gateway facilities until December 31, 2007.

4. Market structure

PTK maintains its dominance in the provision of public fixed telephony services. However, two alternative network operators have entered the market. On September 8, 2006 IPKO, controlled by Telekom Slovenije, was granted the second licence for the provision of national public fixed telephone networks and services. IPKO launched commercial services in 2008. In January 2009, the third licence was issued to Konet that has not yet become operational. The fixed network penetration of around 4% remains the lowest in the region.

Much more competitive is internet and broadband services sector, where the incumbent ISP's market share by number of connections is below 25% by the number of connections. The majority of the broadband connections in Kosovo are offered by alternative ISPs over cable infrastructure. The penetration of fixed broadband as of January 2010 was 6.24%.

Mobile network penetration as of January 2010 was 73%. There are two 2G mobile network operators licensed by TRA. The incumbent's mobile subsidiary, Vala was issued the first GSM licence in the 900 MHz spectrum in July 2004. On March 6, 2007, following an international tender procedure, TRA granted the second GSM licence in the 900 MHz and 1800 MHz to IPKO. No decision on 3G/UMTS licences has been adopted yet.

Following the adoption of the regulatory framework for MVNOs in May 2008, TRA issued two MVNO licences in June 2008. One of the MVNOs, Dardafone, operates based on a network access agreement with Vala, while the second, Dukagjini Telecommunications, has concluded an agreement with IPKO.

In April 2009, a PTK consortium was awarded the fourth mobile licence in neighbouring Albania.

5. 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.

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 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.

6. 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 TRA on January 12, 2007.
- TRA mediated in an interconnection dispute between Vala and IPKO, and set out mobile termination rates, using a benchmark.

In 2010 the regulator has adopted a regulation on CS/CPS. However there is no clear timeframe for the implementation of CS/CPS, as well as number portability and local loop unbundling.

Until now, 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).

7. 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 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.

8. European Union

In November 2010, the European Commission reported¹³¹ little progress in the area of electronic communications. The TRA adopted a regulation on carrier selection and carrier pre-selection and a regulation on radio stations that do not need a licence. In terms of market regulation, the Commission only found limited activity of the TRA. According to the Commission, TRA lacked human resources and expertise and had constraints on its financial independence.

The level of competition is still low. The process of privatising the incumbent PTK has been launched and the Commission expected it to be finalised by the end of 2010.

The Commission also reported limited progress in the area of information society services, although new laws on data protection and on preventing and fighting cybercrime were adopted. The Law on information society services has not been fully implemented and e-government services have yet to be developed.

¹³¹ Kosovo 2010 Progress Report. [SEC\(2010\)1329](#).

9. Outlook

Although TRA has started work on drafting the required regulations for improving competitive safeguards, the implementation timescales are not yet clear and the deadlines set out in the sector policy have not been met. The administrative capacity of the Ministry of Transport and Communications needs to be strengthened and a new policy document for the sector is required. Furthermore, national legislation needs to be aligned closer with the EU 2003 and 2009 regulatory frameworks for electronic communications.

Fixed market penetration remains the lowest in the region, and mobile telephony market penetration is also relatively low. The mobile market is expected to accelerate with the entry of virtual mobile operators. The emergence of a third licensed fixed operator is expected to accelerate the broadband market.