REPORT II

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

June 1, 2009

Executive Summary

The market for electronic communications in the Western Balkans and Turkey in 2008 continued to show the signs of strong and positive growth, despite the economic crisis. In the absence of the complete financial data for 2008, it is still early to judge about the negative effects of the crisis on individual national economies or on the overall performance of the electronic communications sector in the region. The forecasts for 2009, however, look far less optimistic as overall economic downturn, falling sources of finance and declining foreign investment are likely to negatively affect the growth of the sector.

As the countries struggle with growing budget deficits, the electronic communications sector could also be affected by some of the measures introduced by national governments to combat the crisis. One such example is a temporary additional 10% tax on mobile communications recently introduced in Serbia. However, according to the European Central Bank and the International Monetary Fund, the overall economic growth in the Western Balkans and Turkey will resume already by 2010 and will be higher than that in the Euro zone.

Mobile telephony remains the fastest growing electronic communications market in the region. The strong growth of the mobile penetration has continued in all countries, reaching the level of the EU-27 and sometimes even surpassing it, with Montenegro (185%), Croatia (132.5%) and Serbia (128.3%) in the lead. The growth in mobile penetration was accompanied by intensified competition as the new players that entered the mobile markets in the former Yugoslav Republic of Macedonia, Albania, Montenegro, Serbia and Kosovo in 2007 have been rolling out their networks and building subscriber base. The competition has also brought some reductions in mobile retail prices, in particular in Croatia, the former Yugoslav Republic of Macedonia, Montenegro and Serbia. Mobile retail prices in these countries have reached the levels below the EU-27 average.

Spectrum licences for provision of 3G mobile services have been issued in Croatia, the former Yugoslav Republic of Macedonia, Turkey, Bosnia & Herzegovina, Montenegro and Serbia, and some commercial services have been launched, using both UMTS and HSDPA. Mobile broadband is also taking off, in particular in Croatia and Serbia. At the end of 2008, Croatia reported 158,500 active users of dedicated data cards and keys, corresponding to 3.6% penetration.

Mobile number portability is now available in Croatia, the former Yugoslav Republic of Macedonia and Turkey. In Turkey, it appears to have been a particular success with almost 1.2 million mobile numbers ported within the first four months since its launch in November 2008, equivalent to 2% of total mobile numbers.

Fixed networks have been liberalised in most of the countries – data before voice and domestic services before international gateways. Yet there are significant delays between adoption of the intention and effective implementation. Consequently incumbent operators retain strong or very strong positions in most fixed markets. Fixed voice telephony services de facto have not been opened to competition in Serbia, while in Turkey there is no effective competition in the provision of fixed voice telephony networks and services at the local level. Some improvements, however, could be expected during 2009. As the first step in liberalising the fixed voice telephony market, several providers of VoIP and international interconnection were licensed in Serbia in late 2008 and tender procedures for licensing alternative fixed voice telephony network operators are expected in the second half of 2009. Under the new Electronic Communications Law adopted in November 2008, Turkey is expected to introduce a general authorisation regime that should facilitate competitive market entry.

The provision of fixed broadband Internet access remains limited. At the end of 2008, the average broadband penetration rate for the eight countries was 7.74%, which is about one third of the EU-27 average of 22.90%. The highest broadband penetration rate of 11.80% was reported by Croatia, above the level of Romania and Bulgaria that joined the EU in 2007.

Fixed broadband markets are dominated by the incumbent operators in Croatia, Turkey and Montenegro, where xDSL is the main access technology. A different situation is observed in the former Yugoslav Republic of Macedonia, Bosnia & Herzegovina, Serbia and Kosovo, where competitors are using

alternative infrastructures: cable and fixed wireless access networks. In Albania, local operators offer xDSL services in competition with the incumbent based on own network infrastructures.

The implementation of competitive safeguards for fixed voice telephony remains in the early stages and is dependent upon the capacity and expertise of the authorities. National legislation based on the EU 2003 regulatory package has been implemented in four countries: Albania, Croatia, FYROM and Montenegro. Elements of the EU 2003 regulatory framework have also been introduced in the new law in Turkey, but the key provisions on competitive safeguards and the market analysis regime still require further implementing legislation. With the exception of Croatia, that has implemented the necessary starting conditions concerning access, interconnection and universal service, the regulatory regimes are not yet sufficiently prepared for the implementation of the new regulatory framework.

The greatest challenge facing regulators is the task of carrying out market analyses. They must define relevant markets, gather the necessary data, designate operators with SMP and then identify and enforce appropriate remedies. To date, progress has been extremely limited.

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

The evidence from the collection of data for this report suggests that there is a need to improve the transparency in the operation of regulators in terms of publication of the decisions, consultation procedures and reporting of market conditions.

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

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

Some national statistics institutes have started collecting information society statistics, but often covering only basic indicators and not fully integrated with Eurostat statistics. Data on online commercial transactions or on usage of e-government and e-learning services is missing. Computer and Internet usage is below the EU average, although similar to other EU member states of the region. Some countries have reported large gaps between male and female usage of computers and the Internet.

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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	*Groupe Speciale Mobile* or Global Standard for Mobile communications
IANA	Internet Assigned Numbers Authority
ICANN	Internet Corporation for Assigned Names and Numbers
ICT	Information and Communication Technologies
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronic Engineers
IP	Internet Protocol
IPO	Initial Public Offering
IOT	Inter Operator Tariff
ISDN	Integrated Services Digital Access
ISDN BRA	ISDN – Basic Rate Access (2 x 64 kbits/second)
ISDN PA	ISDN – Primary Access (32 x 64 kbits/second)
ISP	Internet Service Provider
ISO	International Organization for Standardization
ITU	International Telecommunication Union
IXP	Internet Exchange Point
LLU	Local Loop Unbundling
LRIC	Long Run Incremental Cost

LRAIC	Long Run Average Incremental Cost
NCA	National Competition Authority
NRA	National Regulatory Authority
OECD	Organisation for Economic Cooperation and Development
PATS	Public Access Telephone Service
PC	Personal Computer
PLC	Power Line Communications
PMR	Private Mobile Radio
PRS	Premium Rate Service
PSTN	Public Switched Telephone Network
Q1	First quarter of the year
QOR	Query On Release
QOS	Quality Of Service
RIO	Reference Interconnection Offer
RLAN	Radio Local Area Network
ROCE	Return on Capital Employed
RPI	Retail Price Index
RSC	Radio Spectrum Committee
RSPG	Radio Spectrum Policy Group
RUO	Reference Unbundling Offer
SEE	South-East Europe
SLA	Service Level Agreements
SMP	Significant Market Power
SRSG	Special Representative of the United Nations Secretary General to Kosovo
TV	Television
UDRP	Uniform Dispute Resolution Procedure
UMTS	Universal Mobile Telecommunications System
UN	United Nations
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 employment.[1]

Telecommunications policies have come to occupy an important position in the economic development of nations.[2] 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.

In the European Union, the regulatory environment for the telecommunications or electronic communications sector[3] 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.[4] 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: Framework, Authorisation, Access, Universal Service, Privacy and Competition. The main changes were:
   - more extensive use of general authorisations, reducing regulatory barriers to market entry. Only activities requiring the use of scarce resources required an individual authorisation.
   - the designation of SMP was brought into line with competition law and its application limited to markets defined on competition law principles, 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.[5]

   This became known as the "2003 *acquis"*.[6]

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[1] http://ec.europa.eu/information_society/eeurope/i2010/index_en.htm

[2] 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

[3] 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.

[4] Greece, Ireland, Portugal and Spain had derogations on their introduction.

[5] 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.

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

   The EC then revised its original proposals, the most significant elements of which were:[8]

   - Creation of the Body of Telecoms Regulators (the Body), with roles in market analysis, radio spectrum and numbering.
   - Changes to the market analysis procedures, including deadlines and a role for the Body if a country is late in conducting its market analyses. The Commission's veto powers to be extended to include remedies, in order to ensure greater harmonisation.
   - The inclusion of functional separation as a remedy of "last resort". This would mean that a vertically integrated operator could be required to place activities related to the wholesale provision of its access network services in an independent operating business unit that would have to work under strict non-discriminatory obligations.
   - More flexible 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.
   - Changes to network integrity, data security, privacy and consumer rights.

   It is possible that the directives could be adopted in 2009, with an implementation date in 2010 and would then become the "2010 *acquis*". However, this is subject to the debates in Parliament and Council, plus any negotiations between the two bodies and may be delayed until 2010 and 2011 respectively.

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).[9] NRAs can additionally use the "three criteria test" to find that one of the markets deleted from the list or some other market required analysis:[10]

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)

They must then inform the EC and obtain consent for any additional market definition.

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			

[6] 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.

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

[8] http://ec.europa.eu/information_society/policy/ecomm/library/proposals/index_en.htm

[9] 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

[10] 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
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., bit-stream).
13	Wholesale terminating segments of leased lines	6	Wholesale terminating segments of leased lines, irrespective of the technology used to provide leased or dedicated capacity	Made technology neutral.
14	Wholesale trunk segments of leased lines			deleted
15	Access and call origination on public mobile telephone networks			deleted
16	Voice call termination on individual mobile networks	7	Voice call termination on individual mobile networks	unchanged
17	The wholesale national market for international roaming on public mobile networks			deleted
18	Broadcasting transmission services, to deliver broadcast content to end-users			deleted

Table 1 - List of relevant markets

The EU adopted the Roaming Regulation in 2007.[11] While this is now part of the *acquis communautaire*, its application outside member states is complicated by the need for reciprocal agreements amongst operators. A proposal to amend and to extend the Regulation is presently being debated in the Council and the Parliament.

The EU started to address information society issues around 1990. In the beginning, the legislative initiatives focussed on completing the internal market by harmonising national legislation, for example by the Television without Frontiers Directive[12] (1989) and the Data Protection Directive[13] (adopted in 1995, though the Commission had published its first draft in 1990).

[11] 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.

[12] 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.

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".[14] 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 *e*Europe 2002 and 2005 Action Plans. In June 2005 *e*Europe was replaced by the current i2010 Strategy.[15] The eSEEurope Initiative[16] extends the EU's related activities to the SEE countries.

The Electronic Commerce Directive[17] adopted in 2000 ensures that Member States legally recognise electronic contracts. It also granted providers of information society services free market access and established rules on advertising. The Directive provided a safer legal environment for Internet service providers, because it limited their liability for infringements by their subscribers or users. Some of the 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.[18]

The Electronic Signatures Directive adopted in 1999 established the legal framework for electronic signatures that are legally equal to handwritten signatures.[19] Certification-service providers must not be subject to prior authorisation. Member States must establish a supervision system for those providers who issue qualified certificates.

Regulatory development has been supported by monitoring the progress in the national 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 fourteenth report was adopted by the Commission in March 2009.[20] These reports have examined major developments in the market and give an assessment of the implementation of the regulatory framework.

Further coordination is provided by a number of bodies where the EC and member states meet to discuss implementation and future policies:[21]

- Communications Committee (COCOM)
- European Regulators Group (ERG)
- Radio Spectrum Committee (RSC)
- Radio Spectrum Policy Group (RSPG)

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

As part of the preparation for 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.

"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

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[13] 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.

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

[15] See http://ec.europa.eu/information_society/eeurope/i2010/index_en.htm.

[16] See http://www.eseeinitiative.org/.

[17] 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).

[18] 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.

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

[20] COM(2009) 140 final.

[21] http://circa.europa.eu/Public/irc/infso/Home/main

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 second of four reports, one every nine months in the period from 2008 to 2010.

II. PARTICIPATING ENTITIES

The entities covered by this project are set out in Table 2 and shown in Figure 1. The table lists them in the order in which they will be presented in the reports: the three candidates followed by the potential candidate countries. It also introduces the two letter codes that will be used to identify entities on graphs and charts. These are based on the ISO 3166-1 codes[22] 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 prejudge 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: • 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[23]	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	-

[22] http://www.iso.org/iso/country_codes
[23] http://www.iana.org/reports/2007/me-report-11sep2007.html

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.[24] On February 17, 2008 the Kosovo Assembly, elected in December 2007, adopted a resolution declaring Kosovo to be independent.25 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.[26] 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.[27]

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.[28]

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.[29] 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.

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[24] http://www.un.org/Docs/scres/1999/sc99.htm

[25] http://www.assembly-kosova.org/?krye=home&lang=en

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

[27] 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

[28] 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

[29] http://ec.europa.eu/information_society/policy/ecomm/implementation_enforcement/index_en.htm

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

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

- Croatia: 2008/119/EC[30]
- FYROM: 2008/212/EC[31]
- Turkey: 2008/257/EC[32]

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[33]
- Bosnia & Herzegovina: 2008/211/EC[34]
- Montenegro: 2007/49/EC[35]
- Serbia: 2008/213/EC[36]
- Kosovo: 2008/213/EC[37]

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).[38] 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.

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[30] Previous agreements are: 2006/145/EC, 2005/40/EC and 2004/648/EC.
[31] Previous agreements are: 2006/57/EC, 2004/518/EC and 2001/0049 (ACV).
[32] Previous agreements are: 2006/35/EC, 2003/398/EC and 2001/235/EC.
[33] Previous agreements are: 8164/06, 8154/06, 2006/54/EC and 2004/519/EC.
[34] Previous agreements are: 2006/55/EC and 2004/515/EC.
[35] Previous agreements are: 2006/56/EC and 2004/520/EC.
[36] Previous agreements are: 2006/56/EC and 2004/520/EC.
[37] Previous agreements are: 2006/56/EC and 2004/520/EC, included as part of the agreement with Serbia.
[38] 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). The EC recently summarised its activities in the Western Balkans.[39]

Country	2008	2007	2006	2005
Croatia	SEC(2008) 2694	SEC(2007) 1431	SEC(2006) 1385	SEC(2005) 1424
FYROM	SEC(2008) 2695	SEC(2007) 1432	SEC(2006)1387	-
Turkey	SEC(2008) 2699	SEC(2007) 1436	SEC(2006) 1390	SEC(2005) 1426
Albania	SEC(2008) 2692	SEC(2007) 1429	SEC(2006) 1383	SEC(2005) 1421
Bosnia & Herzegovina	SEC(2008) 2693	SEC(2007) 1434	SEC(2006) 1384	SEC(2005) 1422
Montenegro	SEC(2008) 2696	SEC(2007) 1434	SEC(2006) 1389, SEC (2006) 1386	SEC(2005) 1428
Serbia	SEC(2008) 2698	SEC(2007) 1435	SEC(2006) 1389, SEC (2006) 1386	SEC(2005) 1428
Kosovo	SEC(2008) 2697	SEC(2007) 1433	-	SEC(2005) 1423

Table 3 - Progress reports on candidate and potential candidate countries

The EC provides assistance to countries in the Western Balkans to support their transition to membership of the EU through the Community Assistance for Reconstruction, Development and Stability in the Balkans (CARDS) programme.[40] 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].[41] From 2007 to 2013, both instruments were replaced by the Instrument for Pre-Accession (IPA).[42]

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).[43] In 2002, during the "South Eastern Europe Conference on Policy and Cooperation in 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, a knowledge base and web portal, workshops and seminars, plus support for preparing project proposals.[44]

The ITU has a programme of training events for officials from regulators and ministries in Eastern Europe through its Centre of Excellence.[45] 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.[46] It also provides some training on telecom and ICT issues for regional authorities.

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

[40] 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

[41] 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

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

[43] http://www.stabilitypact.org/e-see/

[44] http://www.cegd.eu/

[45] http://www.itu.int/ITU-D/hrd/coe/eur/index.asp

[46] http://www.inatelecom.org/

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) Ministry of Public Works, Transport and Telecommunications	National Agency on Information Society (NAIS)
Bosnia & Herzegovina	Communications Regulatory Agency (RAK)	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	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.
4. Information society services. The questionnaire covers regulatory aspects of information society services and a limited set of statistical indicators.

The reference dates for the four questionnaires were January 1, 2009, for quarterly data and December 31, 2007, for annual data. Regulatory and institutional data were as at January 1, 2009, 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 September 2008. It presents key findings, highlights the major market trends and provides a summary assessment of the market data.
- Country profiles: an overview of policy making and regulatory authorities for electronic communications and information society services in the monitored countries and outlines the key legal and policy documents.

- Country data: the structure is similar to that of Volume 2 of the annex of the European Commission's Implementation Reports.[47] 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.[48] These reports were used as models with appropriate changes and additions, taking utmost account of the Commission's 13th and 14th 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. The degree of control over major undertakings (fixed, mobile and ISP) exercised by foreign investors. The key financial ratios of the incumbent operators.
- National regulatory authorities: the indicators were revised, taking into account some elements used in the ECTA Regulatory Scorecard.[49] 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, authorisation regimes, specific requirements applicable to cable television and VoIP providers.
- Implementation of the EU regulatory framework: market analyses by NRAs, national frameworks for market definitions, principles for the designation of operators with SMP and the imposition of remedies.
- Competitive safeguards: CS/CPS, number portability, availability and practical implementation of reference interconnection and wholesale access offers (LLU, bitstream access, resale offers and wholesale line rental), mobile access and call origination, price control and regulatory cost accounting for fixed and mobile operators.
- Universal service: the scope of universal service and the mechanisms to designate the provider(s), funding and quality of service.
- 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

[47] http://ec.europa.eu/information_society/policy/ecomm/implementation_enforcement/index_en.htm
[48] http://ec.europa.eu/information_society/newsroom/cf/itemdetail.cfm?item_id=2310
[49] http://www.ectaportal.com/en/basic651.html

incumbent and alternative operators for local, long-distance, fixed-to-mobile and international calls;

- Mobile tariffs: based on the OECD 2006 mobile baskets;[50]
- 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"[51] have been chosen to address the following aspects:

- Since 2002 EU Member States measure progress toward the objectives defined in Lisbon in March 2000 and the *e*Europe action plan of 2002. The *e*Europe benchmarking is being further developed under the i2010 Benchmarking Framework[52] and adjusted annually by Commission Regulations[53]. The collected data are published by Eurostat[54]. In the monitored countries, data with a comparable level of detail are not yet available or the process of collecting them has just begun. This report identifies the national body responsible for information society statistics, the types of statistical data that are available and key indicators such as computer and Internet usage by individuals and by enterprises.

- Network and information security: obligations on providers to ensure the security of their service, measures to fight cybercrime, including whether a country has ratified the Council of Europe Convention on Cybercrime[55], 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 usage of electronic signatures;

- Data protection and data retention: protection of confidentiality of communications, protection of traffic and location data, retention of traffic data for law enforcement purposes, measures to combat spam and provisions on itemised billing;

- Directories: legislation on the rights of subscribers to be included or to be not included, and the availability of comprehensive directories and directory enquiry services in practice;

- Internet backbone data: data on Internet Exchange Points (IXPs) and international Internet connectivity; and

- Management of Internet domains: name of the registry in charge of country code domain names, the relation between registry and registrars, national policies against cyber-squatting and market data on the number of domains and prices.

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[50] 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.olis.oecd.org/olis/2006doc.nsf/ENGDATCORPLOOK/NT00003A5E/$FILE/JT03212157.PDF

[51] 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".

[52] http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/060220_i2010_benchmarking_framework_nov_2006.doc

[53] See Commission Regulations (EC) No 1099/2005, 1031/2006, 847/2007 and 960/2008.

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

[55] 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

The total value of the electronic communications market in the eight monitored countries is estimated at €15.86 billion in 2007, an increase of over 18% from the previous year. For comparison, in the EU-27, according to the data collected by the NRAs for 2007, the total revenues of the sector reached almost €357 billion, or 2.9% of GDP, while the estimated growth of the EU electronic communications sector in 2008 was 1.3% in real terms.[56]

The fastest growing sectors in the eight monitored countries in 2007 were Internet services with 40.3% annual growth and mobile communications showing almost 27% growth. In terms of revenues, mobile services amounted to 57% and Internet services to only 6% of the region's electronic communications market value. Fixed voice telephony represented 34% of the market value but had growth of only 5% (see Figure 2).

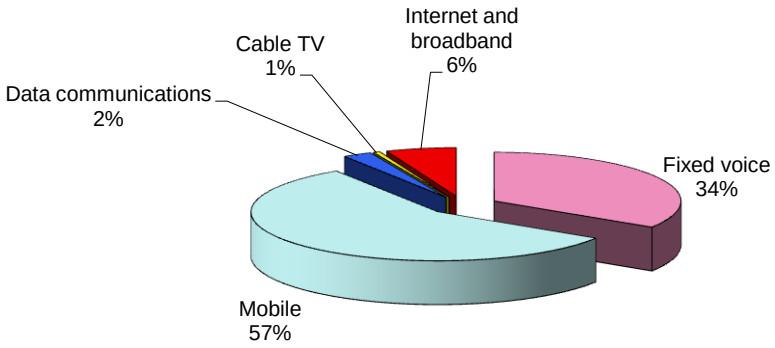


Figure 2 - Electronic communications market in 2007, by sector

Breaking down the markets by entities, the pattern is inevitably dominated by the size of the Turkish market (see Figure 3).

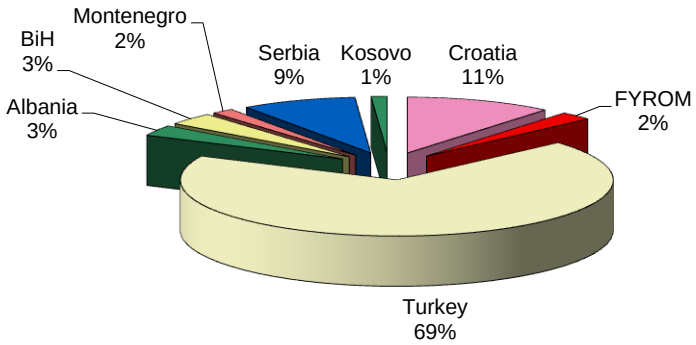
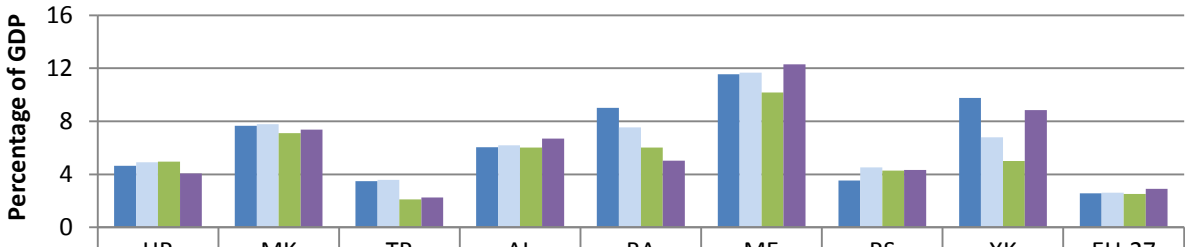


Figure 3 - Electronic communications market in 2007, by country

Electronic communications as percentages of GDP reflect the different levels and patterns of spending, of production and of supply within the economies (see Figure 4). The high value for Montenegro may indicate an underestimation of the GDP, though it may match the high household spending reported on communications. The average value for all the countries is 2.7%, heavily weighted by the lower Turkish value. Excluding this gives an average of 4.9%, significantly above the EU-27 average in 2007 of 2.9%.

[56] See 14th Implementation Report, March 2009



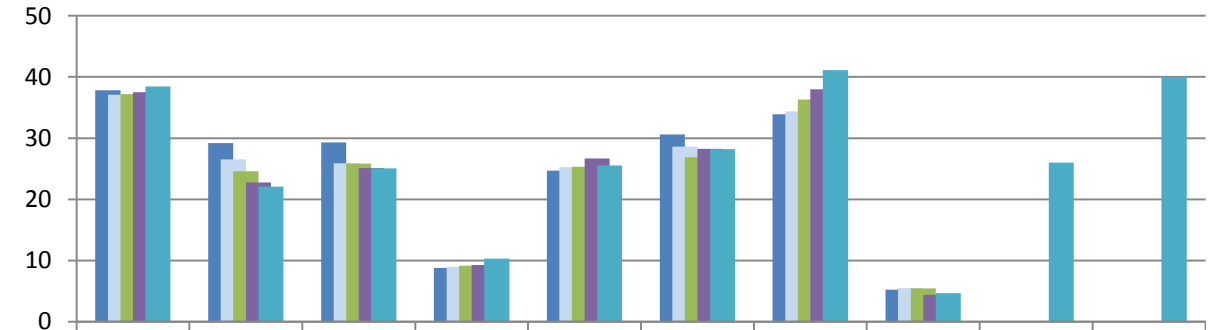
	HR	MK	TR	AL	BA	ME	RS	XK	EU-27
2004	4.65	7.66	3.48	6.04	9.01	11.56	3.53	9.76	2.57
2005	4.92	7.78	3.58	6.18	7.55	11.67	4.53	6.79	2.62
2006	4.97	7.10	2.10	6.03	6.02	10.17	4.28	5.02	2.51
2007	4.07	7.38	2.26	6.69	5.04	12.29	4.33	8.85	2.90

Figure 4 - Electronic communications as a percentage of GDP[57]

2. Fixed telephony market

A total number of 24.4 million fixed lines is dominated by Turkey with 18 million, followed by Serbia with over 3 million, Croatia with 1.8 million, Bosnia & Herzegovina with almost 1 million, FYROM with 460,000, Albania with 300,000, Montenegro with 175,000 and Kosovo with 96,000.

At the end of 2008, the average fixed telephony penetration rate for the eight entities was 26%. 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 (see Figure 5). FYROM and Turkey have seen a continuing decrease in penetration since 2004, while Serbia and Albania have the reverse.



	HR	MK	TR	AL	BA	ME	RS	XK	SEE-8	EU-27
2004	37.82	29.21	29.28	8.78	24.71	30.60	33.89	5.20		
2005	37.11	26.50	25.89	8.93	25.29	28.64	34.35	5.50		
2006	37.18	24.58	25.83	9.14	25.33	26.88	36.30	5.44		
2007	37.52	22.74	25.12	9.25	26.67	28.25	38.01	4.40		
2008	38.48	22.07	25.05	10.29	25.53	28.20	41.14	4.63	26.00	40

Figure 5 - Fixed lines per 100 population

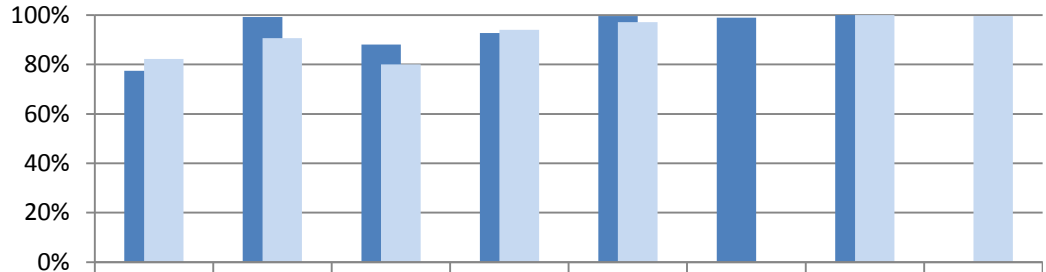
All the entities have made progress in converting analogue networks to digital. In 2007, Croatia, Montenegro and FYROM with fully digital networks were joined by Kosovo, where the incumbent operator has been rolling out a new network. Turkey has achieved full digitalisation in 2008, while Albania and Bosnia & Herzegovina have almost reached the target. Serbia, which had less than 70% in 2005, has made significant progress and should reach 100% by 2010.

[57] Data before 2007 refer to EU-25 instead of EU-27, i.e. before the EU accession of Bulgaria and Romania.

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, Kosovo, FYROM and Turkey have no party lines. Serbia has the highest level of party lines at 5.75%, followed by Albania at 5%, Bosnia & Herzegovina at 2% and Montenegro at 1.4%.

The development of competition in fixed networks and services in each country has been determined by specific paths towards liberalisation. Albania and Turkey are examples where competition at the local and the national levels has not been introduced at the same time. In Albania, rural local networks and services were liberalised before national services. Although there were 60 local or regional operators in Albania, only the incumbent operator could provide services nationally under the terms of its licence. With the introduction of the general authorisation regime under the new Law on Electronic Communications adopted in 2008, all regional operators may freely extend the provision of their services over the entire territory of the country. In Turkey, national networks and services were liberalised before local services. Therefore, there are 33 operators offering long distance services, but local networks and services are only provided by the incumbent. Any competitive entry is not likely to take place before the introduction of the general authorisation regime that is foreseen in May 2009.

In Serbia, fixed voice telephony services have, *de facto*, not been opened to competition.



	HR	MK	TR	AL	BA	ME	RS	XK
By minutes of traffic	77.5%	99.2%	88.0%	92.7%	99.6%	99.0%	100.0%	
By revenue	82.2%	90.7%	80.0%	94.0%	97.1%		100.0%	99.6%

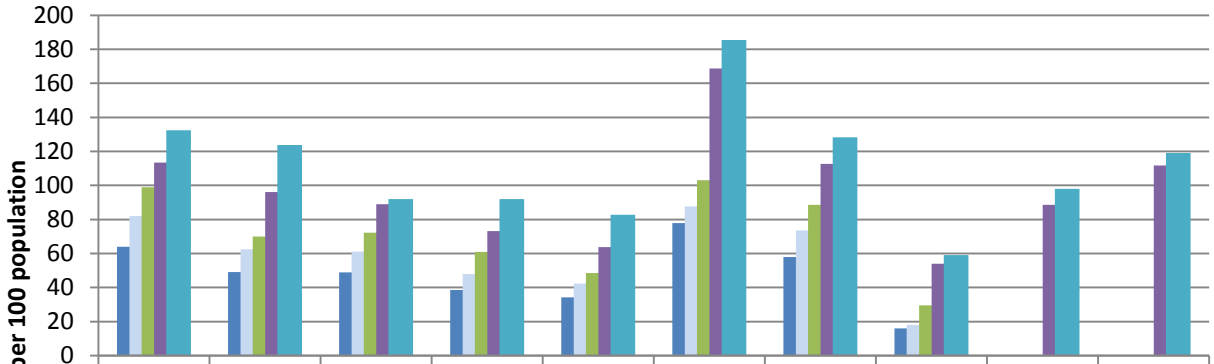
Figure 6 - Incumbent operators' overall market shares in fixed telephony in 2008

In all countries, the dominance of the incumbent operators is clear (see Figure 6). The high market shares for international traffic suggest that the basic measures to introduce competition by opening international gateways have not been taken or have not been effective. VoIP is a frequently advertised service in Croatia, FYROM and Albania. In Albania, around 18% of Albtelecom's subscribers use VoIP services of alternative providers based on prepaid calling cards. Another effective way for the competitors to take market share from the incumbent is by using carrier selection or carrier pre-selection. Almost 25% of the subscribers in Croatia, 22% of the subscribers in Turkey, 5% in Kosovo and 4% in Montenegro are using an alternative operator. In the other countries, the figure is below 1%.

3. Mobile market

At the end of 2008, there were over 92 million subscribers of mobile services, 7 million more than at the end of 2007. This brings the average mobile telephony penetration rate for the eight entities to 98%. However, there appears to be a significant number of plastic roamers (people with multiple SIM cards who switch to a local operator when moving between the entities). Others have multiple domestic SIM cards in order to exploit particularly attractive tariffs or to ensure network coverage. Finally, discrepancies also stem from different practices in defining "active" pre-paid customers.

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



	HR	MK	TR	AL	BA	ME	RS	XK	SEE-8	EU-27
2004	64.0	49.0	48.9	38.6	34.2	77.9	57.9	16.0		
2005	82.1	62.4	61.1	48.0	42.3	87.6	73.5	18.0		
2006	99.0	70.1	72.2	61.0	48.6	103.0	88.6	29.5		
2007	113.4	96.2	89.0	73.2	63.8	168.7	112.7	54.0	88.6	111.8
2008	132.5	123.7	92.0	92.0	82.7	185.5	128.3	59.0	98.0	119.0

Figure 7 - Growth in mobile penetration (2004-08)

In 2008, a significant increase in mobile penetration was observed in Croatia, FYROM, Albania, Bosnia & Herzegovina, Montenegro and Serbia. 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 almost all countries, with the exception of Albania and Kosovo, mobile operators have been licensed to offer 3G/UMTS services in the 2.1 GHz band.

The majority of the customers use pre-paid services. In most countries, over 80% of mobile users are prepaid, with the exception of Croatia and Montenegro where the level of postpaid subscribers is slightly higher. In Kosovo and Albania, nearly all mobile users are prepaid.

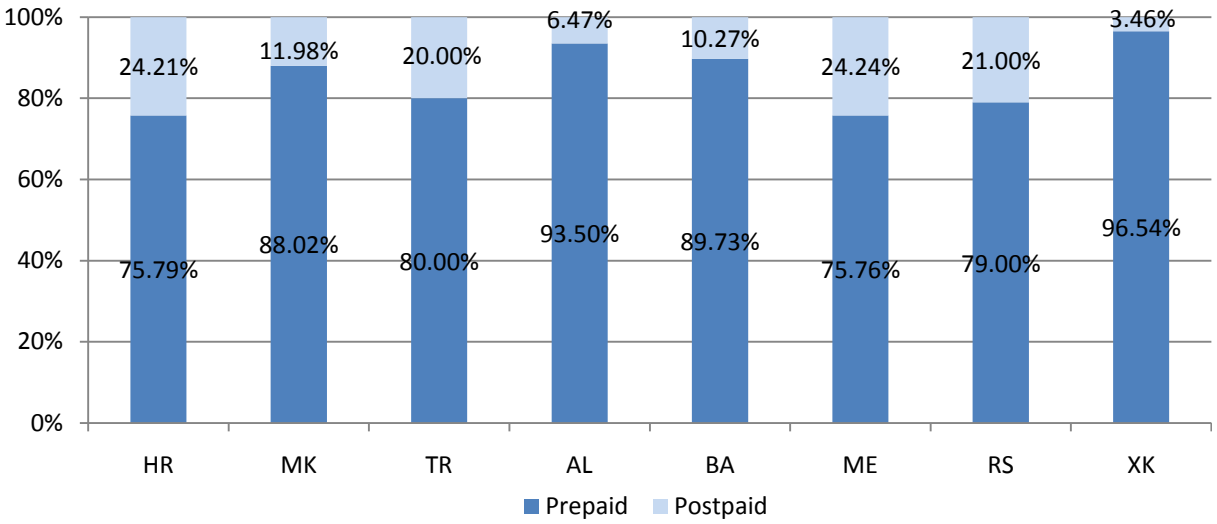
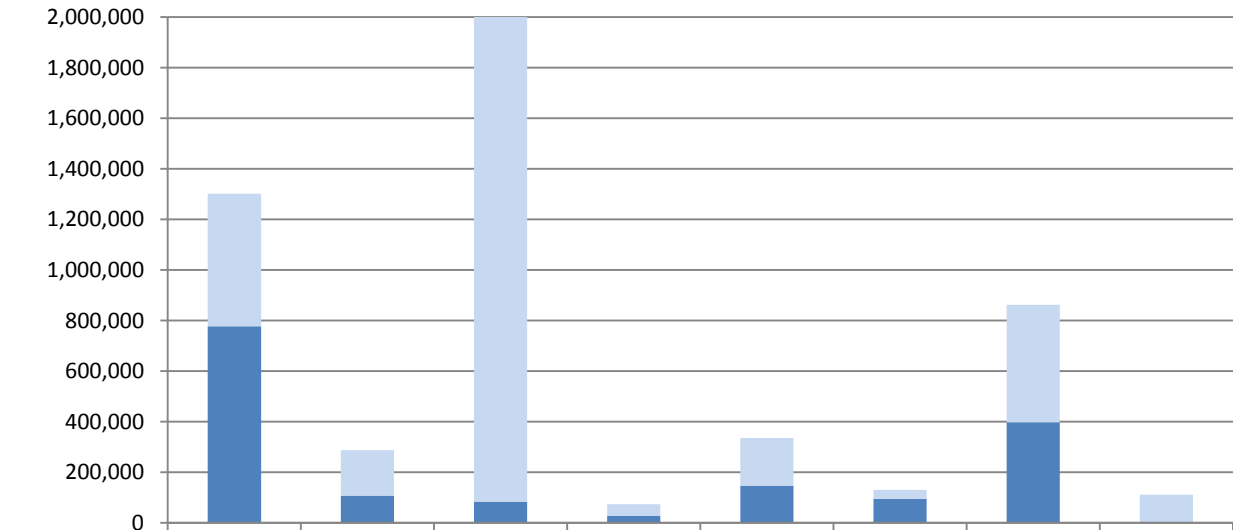


Figure 8 - Mobile subscribers - prepaid and postpaid in 2008

Although the mobile telephony is de facto the only sector where competition has emerged on any significant scale, most of the national mobile markets remain highly concentrated with established players typically controlling over 80-90% of the market. In 2008, however, the market shares of the third mobile operators increased in Croatia, FYROM, and Montenegro. While the entry of new operators is increasing competition and is reflected in the acceleration of mobile penetration, they struggle to get a proportionate share of higher spending (business) customers.

4. Internet and broadband

In the fixed Internet access, dial-up is still predominant in Croatia and Montenegro. FYROM, Bosnia & Herzegovina and Serbia have a majority of broadband, but still retain significant numbers of dial-up lines. Turkey has few dial-up customers, possibly in areas where broadband is not accessible. The division between broadband and narrowband connections is shown in Figure 9. In line with the EC practice in recent Implementation Reports and statistics, broadband capacity is defined as equal to, or higher than, 144 kbit/s.



	HR	MK	TK	AL	BA	ME	RS	XK
Broadband	524,683	180,836	5,754,621	45,903	188,460	34,431	464,535	110,897
Narrowband	777,000	107,420	84,310	28,512	147,703	95,777	397,202	600

Figure 9 - Number of fixed Internet connections – broadband and narrowband in 2008

The number of ISPs active on the market may appear impressive in most of the countries. However, in several countries the majority of the market is controlled by the incumbent operators or (in particular in FYROM) the incumbent holds the higher spending customers.

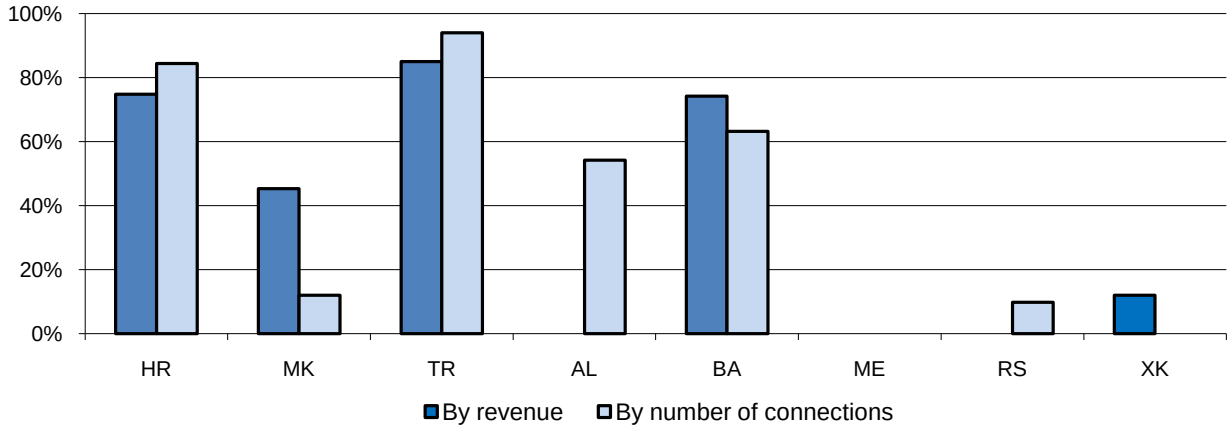


Figure 10 - Incumbent ISP's market share

Broadband penetration rate, measured as the overall number of broadband lines divided by the national population, is significantly below the EU-27 average rate that in January 2009 was 22.90%. The average broadband penetration rate for the eight countries was 7.74%. The highest broadband penetration level was observed in Croatia (11.80%), above the level of Romania and Bulgaria that joined the EU in 2007.

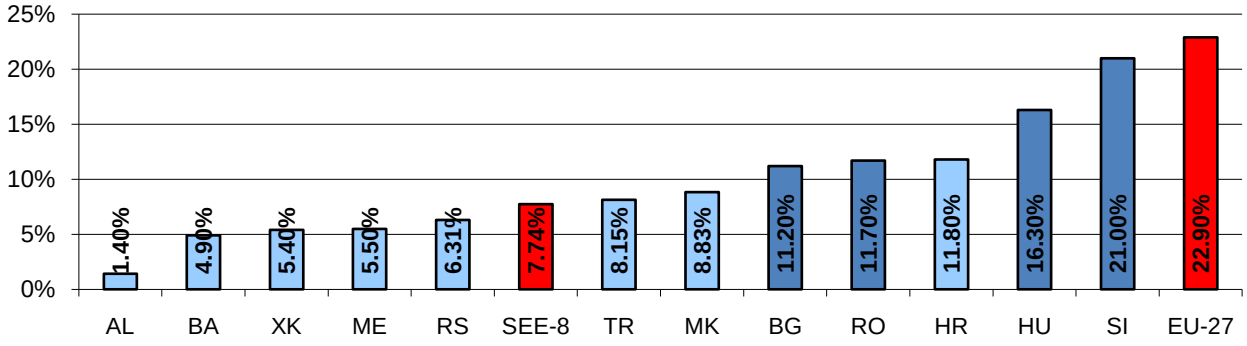
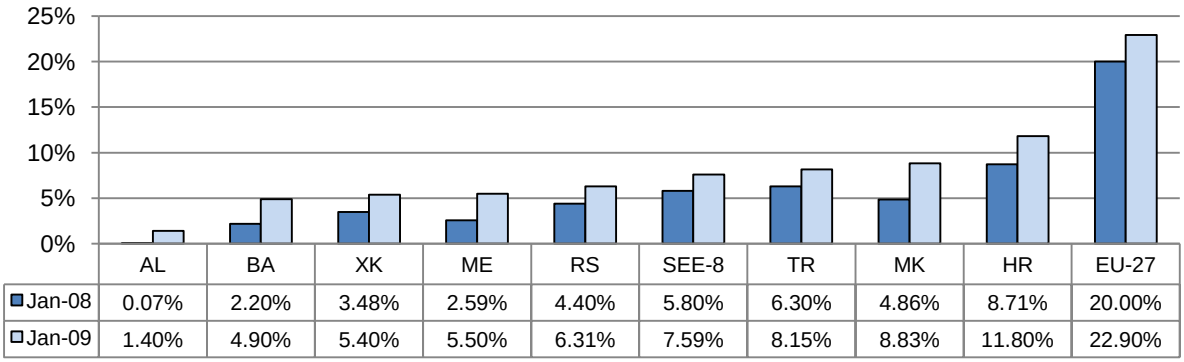


Figure 11 - Broadband penetration rate, January 2009[58]

Figure 12 illustrates the growth in broadband penetration in the monitored countries between January 2008 and January 2009.



	AL	BA	XK	ME	RS	SEE-8	TR	MK	HR	EU-27
Jan-08	0.07%	2.20%	3.48%	2.59%	4.40%	5.80%	6.30%	4.86%	8.71%	20.00%
Jan-09	1.40%	4.90%	5.40%	5.50%	6.31%	7.59%	8.15%	8.83%	11.80%	22.90%

Figure 12 - Growth in broadband penetration[59]

Broadband markets are dominated by fixed incumbent operators in Croatia, Turkey and Montenegro, where xDSL is the main access technology. A different situation is observed in FYROM, Bosnia & Herzegovina, Serbia and Kosovo, where competitors are using alternative infrastructures – cable and to some extent also fixed wireless access networks. In Albania, local operators offer xDSL services in competition with the incumbent based on own network infrastructure.

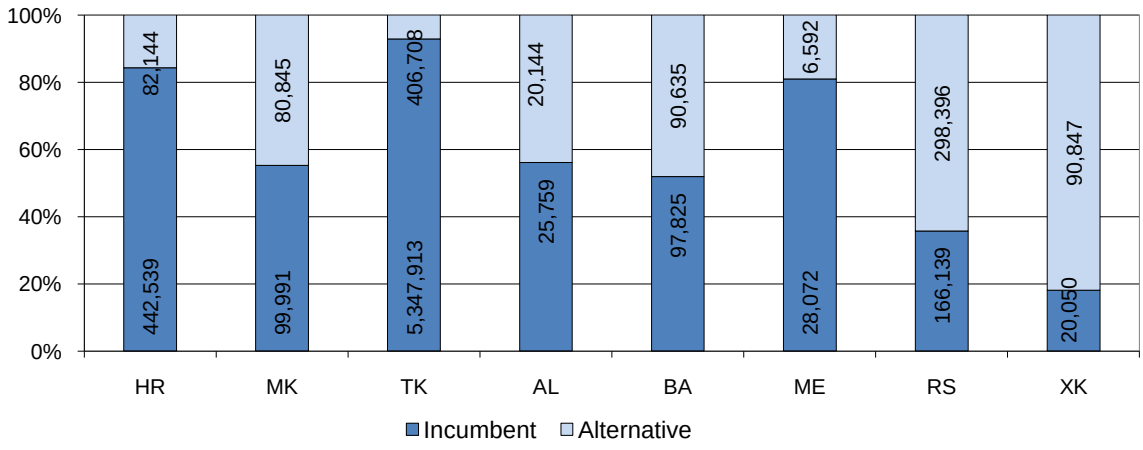


Figure 13 - Fixed retail broadband connections by incumbent and alternative operators

[58] Serbia: data as of January 2008
[59] Serbia: data as of January 2008

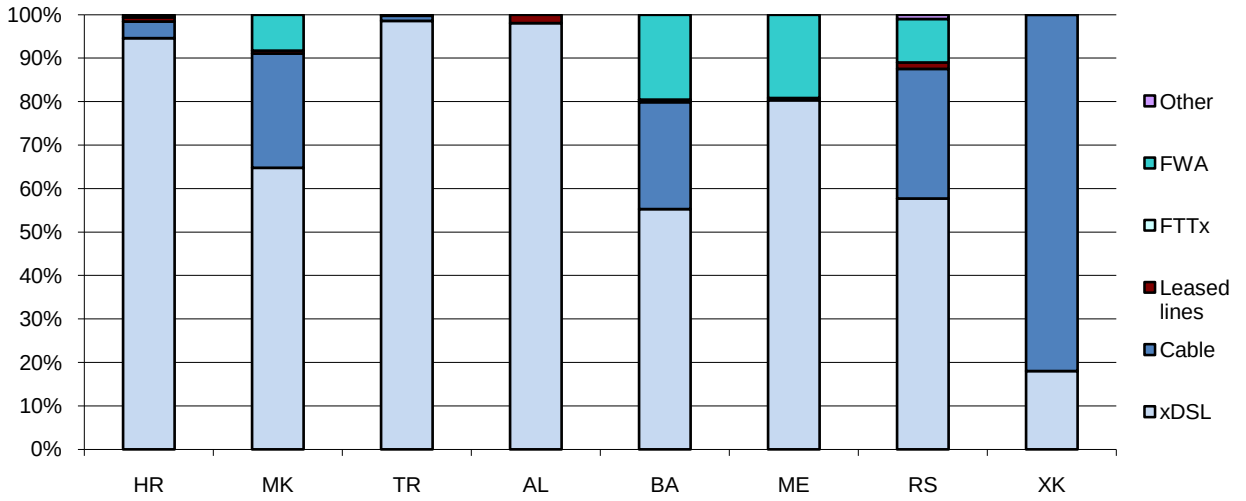


Figure 14 - Fixed retail broadband connections by technology

In most of the countries, the position of the incumbent operator in the retail xDSL broadband market is extremely strong, with alternative operators having less than 20% of the market. The position in Serbia is more equitable, with the incumbent having 61% 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 44% of the retail xDSL broadband connections supplied over their own infrastructure.

In terms of mobile broadband, spectrum licences for provision of 3G/UMTS services have been issued in Croatia, FYROM, Turkey, Montenegro, Bosnia & Herzegovina, and Serbia. Croatia has already achieved a significant number of 865,000 UMTS subscribers from the three mobile operators, of which 158,500 are active users of dedicated data cards and keys (3.6% penetration). Serbia reported over 760,000 UMTS subscribers using services of the three mobile operators at the end of 2008, of which 25,000 were active 3G mobile broadband users. In FYROM, Cosmofon launched commercial UMTS services in August 2008.

5. Control of major operators by foreign investors

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

The German incumbent telecommunications operator, Deutsche Telekom, with its mobile subsidiary, T-Mobile, is one of the major investors in the region. In Croatia, it directly controls 51% of HT-Hrvatske Telekomunikacije 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-Hrvatske Telekomunikacije, Deutsche Telekom also controls activities of the fixed operator HT-Mostar and the mobile operator HT-Euronet in Bosnia & Herzegovina.

The Greek incumbent operator, OTE, controls 20% of Telekom Srbije, the Serbian incumbent operator, and 85% of AMC, a major Albanian mobile network operator. Until recently, OTE also held 100% of shares in Cosmofon, the mobile operator in FYROM. In May 2008, Deutsche Telekom reached an agreement with the Greek government to increase its stake in OTE to 25% plus one vote that would give Deutsche Telekom the right to participate in management control of OTE. The proposed transaction was approved by the European Commission in October 2008. Approvals by the national competition authorities were also awarded during the last quarter of 2008. The transaction raised competition concerns about overlapping interests in the mobile market in FYROM, where Deutsche Telekom already controls one of the two largest mobile operators. On October 16, 2008 the Macedonian Commission for Protection of Competition approved the acquisition, subject to the condition that OTE would sell its Macedonian subsidiary, Cosmofon. On March 30, 2009 OTE agreed to sell Cosmofon to Telekom Slovenije. The sale was approved by the Macedonian Commission for Protection of Competition in April 2009.

Telekom Slovenije, the Slovenian incumbent operator, in addition to the recently acquired Cosmofon, also holds 83% of the largest alternative fixed network operator in FYROM, On.Net. It also controls 75% 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, through its mobile subsidiary, Mobilkom, controls 100% of the major Croatian mobile operator, VIPNet, and has mobile licences in FYROM and Serbia.

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.

B. National regulatory authorities

1. NRA independence

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

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

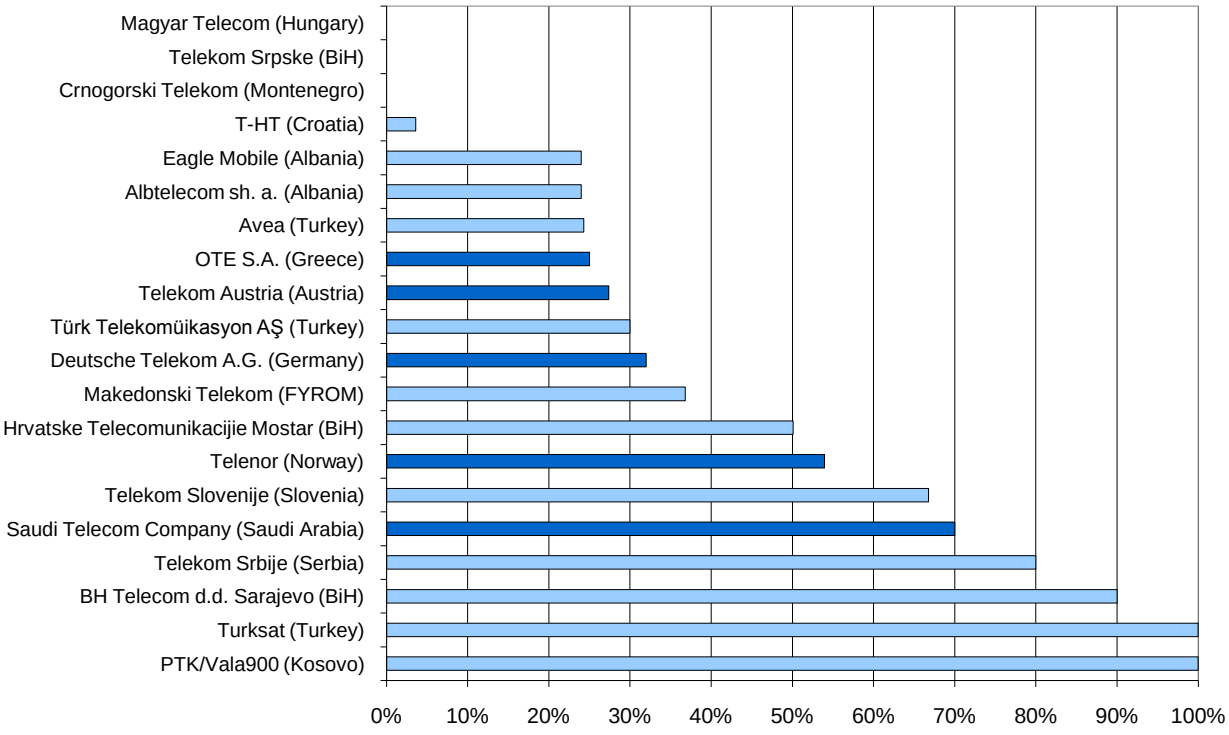


Figure 15 - State ownership of telecommunications operators

There are no clear trends in the management of the ownership functions. It varies from the government as a whole to a control via the Ministry of economy, the Ministry of telecommunications or a combination of both Ministries. The decrease of the state shareholding is usually facilitating the effectiveness of the independence of the NRA. However, one must note that in some of these countries, the partial or full privatisation of the national incumbents has occurred through acquisitions by incumbent operators from the former EU-15 (notably Deutsche Telekom) where the liberalisation has been initiated 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. Although there is no explicit requirement to separate regulatory tasks from the activities of the Ministry or other bodies responsible for the electronic communications policy, the common practice across the EU is to create an NRA that is also separate from the policy-making bodies. Political independence can be assessed, inter alia, on the basis of: the Ministry (government) powers to give instructions to the NRA, the government approval required for adopting certain decisions, the rules for appointment and dismissal of the NRA management and its term of office.

In general, the concept of NRA independence is being progressively introduced in the national regulatory frameworks alongside the adoption of new laws on electronic communications. The key functions of the government and the regulator were redefined in the new laws adopted in 2008 in four countries: Croatia, Turkey, Albania and Montenegro. 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 Montenegro, the new Law on Electronic Communications, however, gave the ministry the powers of administrative review of the NRA decisions as the first appeal instance, effectively undermining the NRA independence.

The situation varies substantially from country to country. 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. The institutional frameworks in FYROM, Turkey, Albania, Bosnia & Herzegovina and Montenegro foresee involvement of the ministry (or government) in adopting decisions on tender procedures for spectrum authorisations and designation of universal service providers. In Serbia, the ministry has quite an extensive scope of responsibilities covering approval of tender procedures for issuing individual licences and spectrum authorisations, universal service and an obligation for the NRA to obtain the opinion from the ministry about the constitutionality or the legality of the draft regulation. In Kosovo, the recent amendments to the Law on Telecommunications removed 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 is 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. This report measures (i) the eligibility criteria, (ii) procedures of appointment and government bodies involved, (iii) term in office and (iv) procedures for removal.

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

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

The term in office is generally 4 to 5 years with the possibility of one renewal, which seems reasonable.

3. NRA budget and sources of financing

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

The funds available for the NRAs are ranging from approximately €2 million (Kosovo, Albania) to €14 million (Croatia, Serbia) with the exception of Turkey where the budget was €43 million in 2008.

With the exception of Croatia, FYROM and Bosnia & Herzegovina, most of the NRAs relied for a large part on funding from one-off authorisation fees. The other main source of financing is spectrum usage fees, in particular in FYROM, Turkey, and Albania. In Serbia, 59% of the NRA funding comes from annual revenue based fees, while 22% - from one-off authorisation fees. The Croatian NRA, in particular, relies on a well-balanced funding from revenue based annual fees (34%), spectrum (23%) and numbers (40%).

4. NRA staffing

The average number of staff in 2008 is between 50 and 100 (up to 140 for Croatia) with two exceptions: Kosovo, with a team of 30 and Turkey with a team of nearly 650. The distribution of the number of people committed to the handling of electronic communications regulatory tasks and the handling of frequency monitoring tasks varies across countries, with particularly low numbers of regulatory staff in Kosovo (13), FYROM (14) and Montenegro (15) that raise concerns about the lack of competent resources.

5. NRA enforcement powers

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

In general, the NRAs have the power to impose fines directly with an exception of Croatia, FYROM and Serbia where the NRAs are required to initiate a misdemeanours procedure before the relevant court. When the amount is calculated as a percentage, the level varies from 1% up to 10% of the total annual revenues with no maximum limit. Some countries impose a maximum fine: Serbia (€37,000), Montenegro (approximately €16,500), Bosnia & Herzegovina (€75,000 for the first violation and €150,000 for the second violation) and Kosovo (€250,000). However, it seems that financial penalties are not used very often, except in Bosnia & Herzegovina.

All the NRAs have the power to suspend commercial offers. 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. Interestingly, Serbia is specifically requesting its NRA to create and maintain a database of all its decisions, including complaints about those decisions, as well as any other information of importance for the telecommunications sector. The other countries do not have legal provisions requiring the NRAs to publish their decisions.

7. NRA accountability

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

Regarding the publication of the action plan, Croatia, FYROM, Turkey, Albania, Montenegro and Serbia request the NRA to publish it on its website. The new 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 prioritisation and the long-term guidelines adopted by the 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 the 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 against the decision 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 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.

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. Unfortunately, the insufficient data does not allow a comparative assessment of the length of the appeal procedures across the monitored countries.

9. NRA transparency and participation

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

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

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

10. Frequency management

Frequency management function includes two main tasks: (i) frequency allocation, including the decision on the national frequency plan; and (ii) frequency assignments, covering individual authorisations to use

frequencies in the national frequency plan. Frequencies for the military sector are normally decided outside this framework.

In Bosnia & Herzegovina and FYROM, NRAs are responsible for the full scope of frequency management functions, including both frequency allocation and frequency assignments for telecommunications and broadcasting. In Turkey, the NRA is responsible for frequency allocation and frequency assignment for telecommunications, while frequency assignment for broadcasting is carried out by the broadcasting authority. In Croatia and Serbia, frequency allocation is carried out by the government on the basis of a proposal of the NRA, while the NRA performs all frequency assignment tasks. In Montenegro, a similar regime was introduced by the new 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 the Parliament on the basis of the NRA proposal, and the NRA carries out all frequency assignments. Spectrum assignments for broadcasters, however, must be done in coordination with the broadcasting authority. In Albania, frequency allocation is decided by the government on the basis of a proposal of the NRA to the Ministry. Similarly to Turkey, the NRA is responsible for frequency assignment for telecommunications, while frequency assignment for broadcasting is carried out by the broadcasting authority.

11. Regulatory framework for broadcasting networks

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

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.

12. Digital switchover plan

Most of the countries have set a switchover deadline before the end of 2012, except for Turkey with a later deadline of 2014. Nevertheless, only Croatia with an early deadline of 2011 has a review on the future use of digital dividend under way. No formal decision on the analogue to digital switchover has been adopted in Albania and Serbia. At the same time, Albania is reported to operate already now a well developed DVB-T and DVB-H networks with national coverage offering 38 programmes and over 100,000 subscribers.[60] The network, however, operates outside of the current legal framework for broadcast services which was adopted by the Parliament in May 2007. Serbia, according to the draft strategy for the analogue to digital switchover, recently published for consultation[61], is considering setting April 2012 as the switchover deadline. The deadline of 2012 has been also proposed in Albania.

13. Cooperation between the NRA and the National Competition Authority

In Montenegro and in Kosovo, the NRA is responsible for competition issues in the electronic communications sector. In Croatia and in FYROM, both authorities have formalised their cooperation. In 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 the other countries, such cooperation has not yet been formalised.

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60 http://www.digitag.org/WebLetters/2008/External-Aug2008.html

61 http://www.mtid.gov.rs/upload/documents/konsultacije/dtv2/Nacrt%20Strategije%20i%20Akcionog%20plana%20digitalizacije.pdf

C. Market access conditions in electronic communications

1. Liberalisation of public fixed telecommunications 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, the high Montenegrin licensing fees, especially for international services, created a barrier to entry that was only reduced in April 2007.

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

In Turkey, domestic long-distance and international networks were liberalised on January 1, 2004, and local services in July 2005. In practice, however, no licences have been issued for provision of local fixed telephony networks and services, pending the adoption of the licensing framework that was only completed in November 2008. It is not clear, however, whether this framework will be applied in practice before the entry into force of general authorisation regime that is foreseen from May 2009.

In Albania, liberalisation of fixed telephony networks and services has been a gradual process starting with rural local services in 1998, moving to domestic long distance services in July 2003 and international services in January 2005. In November 2006 the Law on Telecommunications was amended to introduce a new concept of a regional licence for rural, urban and domestic long distance networks, effectively opening urban local networks for competition. The implementing legislation was adopted by the NRA only in April 2007, with little effect. Despite the formal liberalisation, the Albanian incumbent also continued to control the provision of international connectivity. The Law on Electronic Communications that entered into force on June 26, 2008 introduces a general authorisation regime for any type of electronic communications services and allows regional operators to extend the provision of their services on the entire national territory and to offer international interconnection.

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

In Serbia, under the Telecommunications Law of 2003, the fixed incumbent operator was granted an exclusive right until June 9, 2005 to provide all types of fixed telecommunications services, with the exception of Internet and cable TV services that were already open to competition. In practice, Telekom Srbija remains the only licensed public fixed voice telephony operator. It also maintained a *de facto* monopoly over international interconnection until alternative operators were issued first licences for international network interconnection in December 2008. Serbia has a significant tariff rebalancing problem, and the policy document of October 2006 took a very cautious approach to the practical implementation of full liberalisation. The new Action Plan for implementation of the National Strategy for Development of Telecommunications adopted in January 2009 foresees licensing of first alternative fixed voice telephony operators in 2009.

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

2. Liberalisation of data networks and services

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

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

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

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

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

3. Authorisation regime for electronic communications services

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

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

In Turkey, the new Electronic Communications Law adopted in November 2008 foresees introduction of general authorisation regime from May 10, 2009.

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

The annual fee paid by authorised undertakings in most countries varies from 0.1% to 0.5% of gross annual turnover. Montenegro 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 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 new draft law on spatial planning and construction that is expected to address the issue of rights of way for telecommunications infrastructure and to simplify the procedures has been recently prepared by the Ministry of Environment and Spatial Planning. The new law is expected to be adopted by fall 2009. In Turkey, the new Electronic Communications Law establishes 60 days time limit 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. Implementation of the EU regulatory framework

Five 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. The regulatory frameworks in other three countries are essentially based on the EU 1998 regulatory framework, sometimes combining certain elements of the 2003 framework.

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

1. Market analysis procedures and regulations

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

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

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

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

FYROM was the first country to introduce 40% market share threshold taken from its domestic competition law together with the requirement to consider other relevant market characteristics. Also, the predefined list of remedies was removed leaving the imposition of remedies to the NRA discretion. The timing of this report finds legal changes coming into effect, which should bring the applied approaches in three other countries much closer to that of the EU regulatory framework. The new laws adopted last year in Croatia, Albania and Montenegro also move away from the 25% rule to a more comprehensive assessment based on the competition law principles and also enable the NRAs to impose regulatory obligations on their own discretion.

The frequency of the market analysis varies considerably between the countries: (i) not defined (Serbia, Montenegro), (ii) not defined but upon request of any service provider (Kosovo), (iii) once every year

(FYROM, Bosnia & Herzegovina), (iv) every two years (Albania) and (v) every three years (Croatia and Turkey). In Montenegro, the NRA is however required to complete its first market analysis within one year from the entry into force of the law, i.e. already by August 27, 2009.

In practice, setting a very short timeframe for market analyses often turns out to be unrealistic taking into consideration the NRAs' lack of expertise and insufficient administrative capacities. For example, in FYROM where the NRA is required to analyse relevant markets at least once a year, only one market has been analysed since the entry into force of the Law on Electronic Communications in 2005 – the market for wholesale call termination on individual mobile networks.

2. Analysis of relevant markets by NRAs

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

In Croatia, the NRA has analysed in 2006-2007 four markets with definitions broadly corresponding to the ones defined under the ONP directive. The fixed incumbent operator, T-HT, and its 100% subsidiary, Iskon, were designated as having joint SMP in public fixed telephone network and services (including voice services and services for transmission of voice, sound, data, documents, pictures, etc.). T-HT was also designated as having SMP in leased lines. T-Mobile and VIPnet have SMP in public voice services on mobile networks. Finally, T-Com, T-Mobile and VIPnet also have SMP in interconnection. After the new Electronic Communications Act was passed in June 2008 that requires applying the principles of the national Law on Competition and the EU 2003 regulatory framework, a new round of market analyses has been initiated. Between March 2 and April 20, 2009 the NRA consulted on the draft conclusions of its analysis of the nine relevant markets. In identifying the relevant markets, the NRA has followed the Commission Recommendation of 2007 and applied the three criteria test to additional markets covering retail mobile telephony services, wholesale access and call origination in mobile networks and the wholesale fixed transit services.[62]

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

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

In Albania, the NRA identified and analysed eight markets in 2007. The mobile operators, AMC and Vodafone, were designated as having SMP in the markets for wholesale call termination on individual mobile networks and retail public mobile services. The fixed incumbent operator, Albtelecom, was designated as having SMP in six markets, covering retail access and publicly available phone calls at a fixed location, wholesale call termination on geographic numbers, wholesale call origination on the public fixed telephone network, national transit services in the public fixed telephone network and international transit services in the public telephone network. The scope of regulatory obligations includes: access and interconnection, non-discrimination, transparency, including RIO, price control, accounting separation and cost accounting. Albtelecom is also required to provide CS/CPS. A new law passed in May 2008 requires

[62] The three cumulative criteria for ex ante regulation are: high and non-transitory barriers to market entry; the market displays characteristics such that it will not tend towards effective competition over time; and ex post application of competition law by itself is insufficient to regulate the market.

the application of competition law principles. A new round of market analyses is expected to be initiated before the end of 2009.

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

In Serbia, the NRA has identified and analysed two broad markets that do not reflect either the EU 1998 or 2003 frameworks. As a result, Telekom Srbija was designated as having SMP in the market for public fixed telephone networks and services, and SBB, the major cable TV operator, as having SMP in the market for radio and television programme distribution via cable network. Last year the NRA adopted a decision identifying six markets relevant for ex ante regulation, comprising the four markets of the ONP framework and two additional markets: fixed telephony, mobile telephony, leased lines, interconnection, Internet services and provision of cable distribution systems.[63] The new market analysis is expected to be undertaken by RATEL in the third quarter of 2009.

In Kosovo and Montenegro, no comprehensive market analyses have been carried out by the NRAs yet. In Kosovo, by the provisions of the Telecommunications Law, the fixed incumbent operator PTK is deemed to have SMP in the market for public fixed telephone networks and services, while its mobile subsidiary, Vala, has SMP in public mobile services. In Montenegro, by the provisions of the previous Telecommunications Law of 2000, Crnogorski Telekom was deemed to have SMP the markets for fixed networks and services and for Internet services, while the two mobile operators, T-Mobile and Promonte, in mobile networks and services. No regulatory obligations had been applied to mobile operators. The new Law on Electronic Communications adopted in July 2008 contains transitional provisions that designate Crnogorski Telekom as having SMP in the markets for fixed voice telephone networks and services including the markets for data transmission services and leased lines. Under the same provisions, all fixed and mobile network operators are deemed to have SMP in the markets for call termination in their respective networks, while the national broadcasting operator in the market for broadcasting transmission services. The law however, does not specify the remedies applicable to the SMP operators.

E. Competitive safeguards

1. Competitive safeguards

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

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

	HR	MK	TR	AL	BA	ME	RS	XK
Carrier selection (CS)	●	●	●	○	●	●	○	○
Carrier pre-selection (CPS)	●	●	●	○	●	●	○	○
Number portability - fixed	●	●	○	○	○	○	○	○
Number portability - mobile	●	●	●	○	○	○	○	○
RIO Fixed	●	●	●	●	●	●	●	●
RIO Mobile	●	●	●	●	○	○	○	○
RUO	●	●	●	○	○	○	○	○
Wholesale broadband access (WBA)	●	⊙	●	○	○	○	⊙	○
Wholesale line rental (WLR)	○	●	○	○	○	○	○	○
MVNO	○	○	○	●	○	○	○	⊙
National roaming	●	⊙	○	○	●	○	⊙	○

[63] http://www.ratel.rs/editor_files/File/Regulativa/Odluke/ODLUKA-analiza%20trzista.pdf

	HR	MK	TR	AL	BA	ME	RS	XK
Regulatory cost accounting - fixed	○	●	○	○	○	○	○	○
Regulatory cost accounting - mobile	○	●	○	○	○	○	○	○
Legend: ● implemented - ○ not implemented - ⭘ commercial offer								

Table 5 - 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, who is connected to the incumbent operator's network, to choose a competitive operator to make local calls, long-distance calls, calls to mobile, or international calls by dialling a carrier selection code. When CPS is available, the subscriber can make a permanent (or semi-permanent) selection of an alternative operator for all calls or certain types of calls.

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

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

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

In Croatia, CS/CPS has been implemented by the incumbent operator in 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 four providers offering CPS services and five providers offering CS services.

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

In Turkey, CS 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. It is not yet available for local calls. There are 11 providers offering CPS and nine providers offering CS.

In Bosnia & Herzegovina, CS was introduced in October 2006 and CPS in July 2007. Four 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, since the incumbent operator has not yet been obliged to include CPS in its RIO, service providers are required to negotiate terms and conditions with Crnogorski Telekom on commercial basis. CS services are offered commercially by six providers.

In Albania, CS/CPS was imposed as a regulatory obligation on Albtelecom, but implementation is only foreseen in 2009.

In Serbia, regulations on CS/CPS are expected to be adopted before the end of 2009, but the timing for its introduction is not yet known. There is no clear timeframe for the implementation of CS/CPS in Kosovo.

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 and FYROM have so far implemented number portability for both fixed and mobile networks. Turkey has implemented mobile number portability.

Croatia is the first country in the region that has successfully implemented number portability for both fixed and mobile numbers. Fixed number portability has been available since July 2005. Mobile number portability was delayed until October 2006. As of March 2009, the Croatian NRA reported over 285,000 ported fixed numbers and 72,200 ported mobile numbers.

In FYROM, number portability in fixed and mobile network was implemented in September 2008 but take-up so far, in particular in mobile networks, has been limited. As of March 2009, the NRA reported over 7,000 ported fixed numbers and slightly over 1,500 ported mobile numbers. One explanation of the slow take up of number portability in mobile networks could be the one-off porting fee of around €10.00 that mobile operators charge to end-users.

Turkey implemented mobile number portability in November 2008. It appears to have been a particular success with almost 1.2 million mobile numbers ported within the first four months, equivalent to 2% of total mobile numbers. Fixed number portability is due to be implemented by May 2009.

In Albania, no decision on the implementation of number portability has been adopted so far. The new Electronic Communications Law stipulates that it should be implemented for both fixed and mobile numbers within one year from the enactment of the new electronic communications law, i.e., by June 26, 2009.

In Bosnia & Herzegovina both fixed and mobile number portability are due to be implemented by December 2009.

No clear deadlines have been established for the implementation of number portability in Montenegro, Serbia and Kosovo. In Serbia, regulations on number portability are expected to be adopted before the end of 2009.

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.[64]

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 jurisdictions. Nevertheless, while considerable work has been undertaken on the preparation and approval of RIOs across the region, there are a significant number of gaps -- especially for RIOs of MNOs.

In Croatia, RIOs have been published by fixed and mobile operators with SMP since February 2005. The current versions of the RIOs were approved by the NRA in February 2009 and are valid from March 2009.

[64] 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.

The RIO of the fixed incumbent operator, however, only applies to the interconnection with fixed networks, while mobile operators have to negotiate interconnection on commercial terms.

In FYROM, the fixed incumbent operator's RIO has been available since February 2006. The current version was approved by the NRA and is valid from February 2009. In July 2008, the NRA approved, with changes, the current RIOs for the two MNOs with SMP. The RIOs are valid from August 2008.

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

In Albania, Albtelecom's new RIO was approved by the NRA and is valid from February 2009. The RIOs of the two mobile operators were also approved by the NRA and are valid from February 2009.

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

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

In 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.

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

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 being made available to alternative operators under non-discriminatory terms and conditions.

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

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

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

Given the late and inconsistent introduction of LLU across the region, the number of loops unbundled so far is small, being almost exclusively in Croatia. The Croatian NRA reported almost 93,000 unbundled loops as of end 2008, with five LLU agreements in place. Although Turkey has had an RUO since November 2006 and there are ten LLU agreements, only about 8,000 loops have been unbundled as of end 2008 on a network of around 18 million lines. In FYROM, there has been only one agreement on LLU between Makedonski Telekom and the major alternative operator On.Net, owned by Telekom Slovenije. Around 2,000 loops had been unbundled there as of end 2008.

In Bosnia & Herzegovina, RUOs for the three fixed incumbent operators are to be published by the end of 2009. No clear deadlines have been established for the implementation of local loop unbundling in Albania, Montenegro, Serbia and 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. There are four common bitstream options, representing typical handover points between an incumbent operator and an alternative operator or ISP: DSLAM level; ATM/Ethernet level; IP level; and end-to-end resale.

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

In Croatia, reference offers for bitstream access have been available since December 2007, including DSLAM level and IP level handover. The latest version of the reference offer was approved by the NRA in February 2009. Before the introduction of the regulated offers, T-Com 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-Com for the ADSL line.

While an obligation to provide bitstream access with IP handover and resale was imposed on Turk Telekom as early as 2004, the first reference offer was only approved by the NRA and available in August 2007. During 2008 there was 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. As of January 2009 there were over 280,000 bitstream access lines with IP handover and 43,000 resale lines. For comparison, at start of 2008, there were only 1,200 bitstream access lines and 200,000 resale lines. In December 2008 the NRA approved Turk Telekom's reference offer for bitstream access with ATM handover and this will be available from July 1, 2009.

In FYROM, Makedonski Telekom offers wholesale ADSL on a commercial basis, providing 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 draft reference offer is currently being assessed by the NRA.

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. In Albania, Bosnia & Herzegovina, Montenegro and Kosovo, no form of bitstream access is available on a regulated or commercial basis.

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 end the billing relationship between the incumbent and 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.

8. National roaming, mobile access and call origination

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

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

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

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

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

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

In Kosovo in May 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 this domain for the region.

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, however, envisages that by 2012 NRAs should set both FTRs and MTRs using a bottom-up forward-looking long-run incremental costs (FL-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 so far have opted for the use of some form of benchmarking-based price controls and not yet implemented cost-based pricing of regulated wholesale services.

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

In FYROM, for example, initially the NRA applied a benchmarking methodology to approve the regulated fixed interconnection and LLU charges. From May 2008, the regulator amended Makedonski Telekom's RIO and RUO to introduce cost-oriented charges based on forward-looking top-down LRIC methodology. The termination prices of the two mobile operators with SMP are set based on a benchmarking methodology, while the introduction of LRIC is foreseen in 2009.

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

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

F. 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 as the "minimum set of services, of specified quality to which all end-users have access, at an affordable price in the light of national conditions, without distorting competition". The current scope of universal service includes:

- connection to the public telephone network at a fixed location and access to publicly available telephone services (PATS);
- provision of directories and directory enquiry services;
- public payphones; and
- special measures for disabled users.

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

Several of the monitored countries have defined a scope of universal service in their legislation that broadly corresponds to the requirements of the Universal Service Directive. However, only Croatia and the FYROM have implemented the universal service rules in a technology neutral way, which would allow the participation in the provision of universal service by mobile operators. The Albanian Law on Electronic Communications adopted in 2008 also sets out a technology neutral universal service framework, although these provisions have not been yet applied in practice.

Croatia was the first country in the region to put a comprehensive universal service regime in place, and to designate the incumbent operator T-HT as USO provider for a 5-year period from November 2005.

In FYROM, the NRA launched a tender procedure to designate one or more universal service providers in January 2008. The designation procedure has not been yet completed because of certain issues that are not clear in the Macedonian text of the law, in particular regarding the designation of several providers covering only specific universal service components or specific geographic areas. Once the law has been amended to clarify these aspects, the procedure will continue. Some of the USO elements had been provided by the incumbent operator, Makedonski Telekom, within the scope of its concession agreement before its termination in September 2008.

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 new Law on Electronic Communications adopted in May 2008, the regulator can designate one or more universal service providers based on a public tender procedure, subject to the Ministry approval. However, no designation mechanism has been established 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. A draft regulation covering the scope of the universal service, the designation mechanism for the universal service providers, funding and the quality of service requirements has been submitted by the NRA to the Council of Ministers for approval.

In Montenegro, no universal service obligations have been imposed on any operator. The Law on Electronic Communications adopted in July 2008 provides legal basis for universal service. Furthermore, it also requires the NRA, no later than 6 months from the entry into force of the law, to adopt the necessary regulations and initiate a tender procedure for selection of the universal service provider, which was not achieved in practice. Secondary legislation is still under preparation.

In Serbia, Telekom Srbija was required to provide the “initial scope” of universal services until expiry of its exclusivity rights in June 2005. The initial scope of universal services was defined as comprising access to a public fixed telephone service enabling functional Internet access; special measures for disabled and socially disadvantaged users; free access to emergency services; public payphones and access to telephone directory and directory enquiry services. Following the expiry of Telekom Srbija’s universal service obligations, the Ministry of Information Society and Telecommunications is required to define the scope of universal service based on the proposal of the NRA, while the NRA must designate the provider and establish the universal service fund. According to the Action plan for implementation of the National Strategy for Development of Telecommunications, the Ministry has to define the minimum scope of universal service in the first half of 2009.

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

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

Croatia and FYROM have adopted legislation that allows them to introduce compensation schemes based on a cost sharing mechanism in the future. Albania, Bosnia & Herzegovina, Montenegro and Serbia are in the process of adopting 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. 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.

G. 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 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 14th Implementation Report shows the following trends[65]:

- *Rentals and local tariffs rise*
  In the EU member states, over the period from 2000 to 2008, the EU-27 weighted average residential monthly rental per month has risen by 30%, from €11.30 per month (including VAT) to €14.7 per month. At the same time, the EU-27 weighted average charges for a 3 minutes local call have risen by 16%.
- *While national and international call tariffs fall*
  Over the same period, from 2000 to 2008, international call baskets for residential customers have

[65] http://ec.europa.eu/information_society/policy/ecomm/implementation_enforcement/index_en.htm

fallen in price by 54%, and the EU-27 weighted average charges for a 3 minutes national call have fallen by 65%.

The graph below, for the Enlargement countries, shows that only Croatia has approached the cost oriented charges for monthly line rentals, coming close to the EU-27 average of €14.7 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. At the same time, very little progress was made in Albania and Serbia.

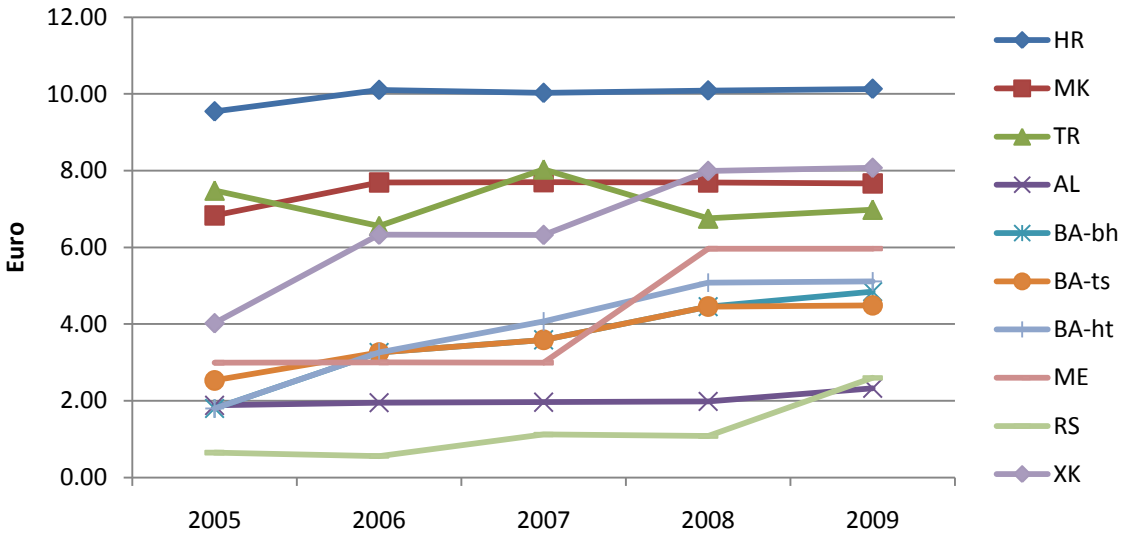


Figure 16 - Residential line rentals by incumbent, including VAT, 2005-2009

Local call tariffs in most SEE countries have only risen slowly in some countries, and in others have fallen, as can be seen on the graph below. The EU average of 13.8 eurocents for a 3 minute call has only been approached in Croatia, closely followed by Turkey. The other countries appear to charge for local calls significantly below cost.

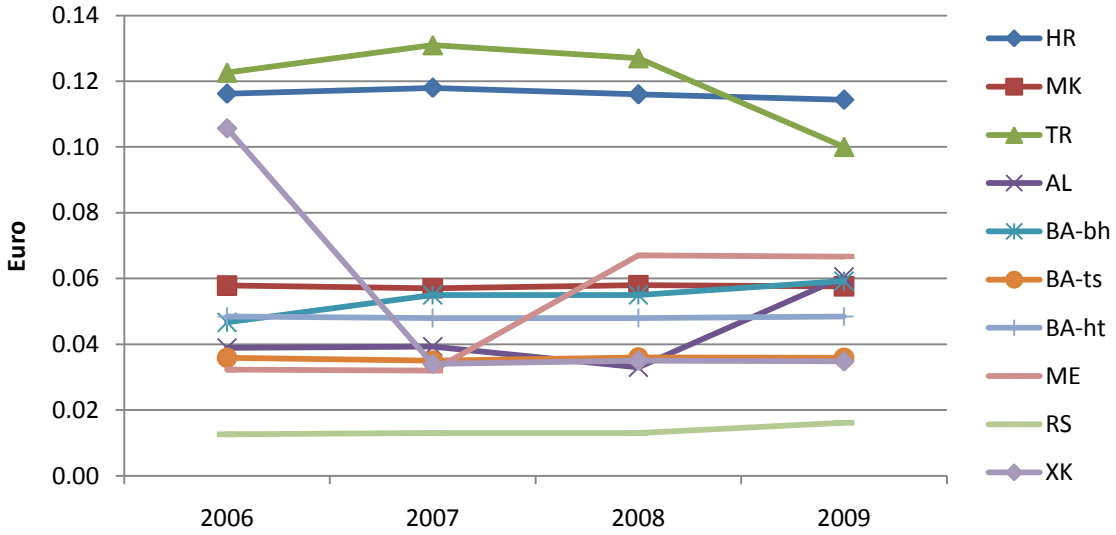


Figure 17 - Residential charges for a 3-minute local call by incumbent, including VAT, 2006-2009

Meanwhile, as the figure below shows, the cost of making a 3 minute national call has decreased significantly in Turkey and Kosovo. Other countries have been slow to bring rates more in line with costs. Albanian consumers have yet to receive any price benefits from a more competitive long distance market.

The weighted average cost of a 3 minute national call for the EU-27 is now 22.7 eurocents. Albanian consumers still pay the most, by a significant margin, while consumers in Serbia and Kosovo appear still to enjoy national call tariffs which are significantly below costs.

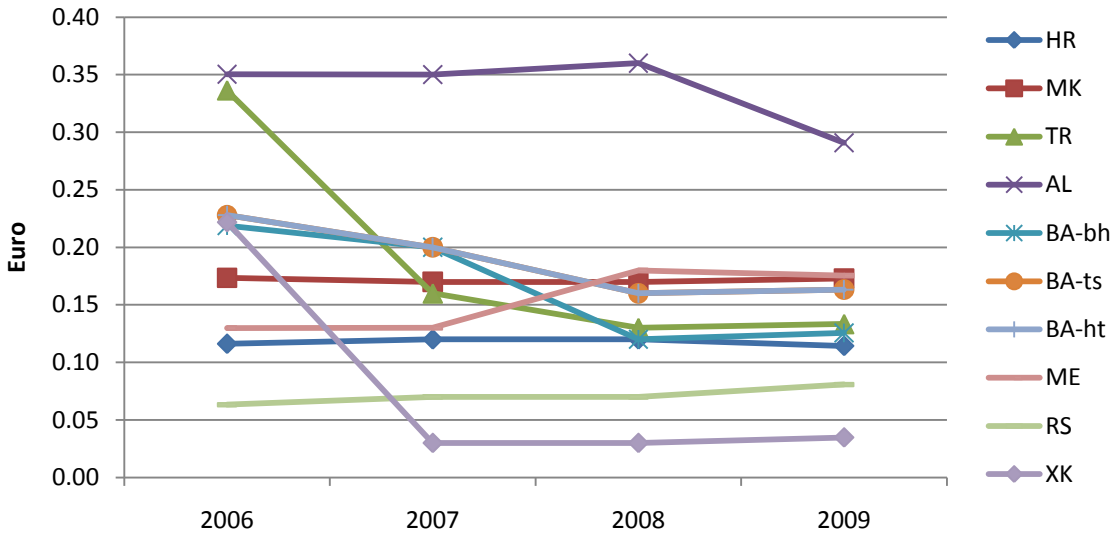


Figure 18 - Residential charges for a 3-minute long distance call by incumbent, including VAT, 2006-2009

At the same time, the level of charges for fixed to mobile calls remained relatively stable in most of the monitored countries. The exception is Albania, where fixed to mobile charges were substantially reduced in 2008, following the regulatory intervention.

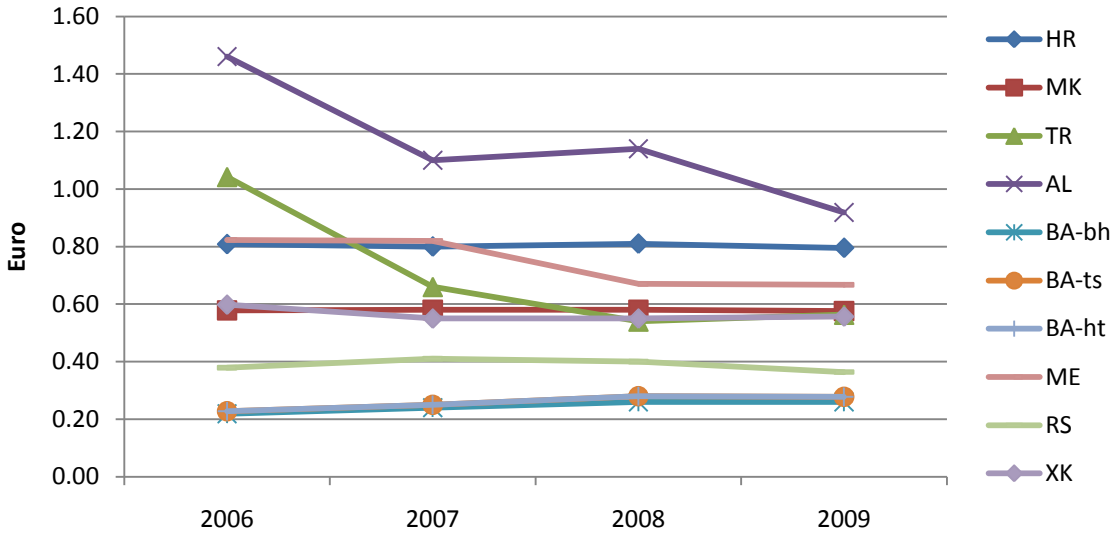


Figure 19 - Residential charges for a 3-minute fixed to mobile call by incumbent, including VAT, 2006-2009

For international calls, all incumbents appear to be responding to more competitive conditions. Tariffs have shown a reducing trend although, as the chart below shows for call prices from the incumbent to UK, the reductions appear to have slowed in the last 12 months.

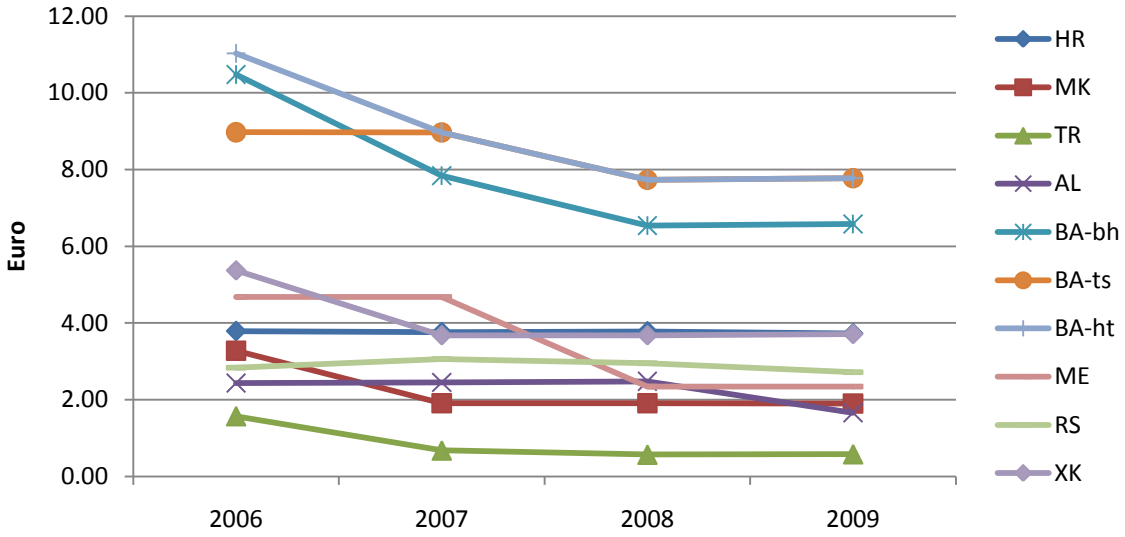


Figure 20 - Residential charges for a 10-minute international call to UK by incumbent, including VAT, 2006-2009

Rebalancing of the incumbent operator's retail tariffs is ongoing in all countries of the region, except for Montenegro where according to the NRA, rebalancing was completed in August 2007.

Three other 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 with increases in monthly line rentals of 20%, local call tariffs increases of 12%, reductions in rates for calls to mobile subscribers of 13-24% and international call tariff reductions of up to 63%.

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

In Serbia, the target date for bringing the tariffs of the incumbent operator in line with costs is set for the third quarter of 2009. In October 2008 the NRA approved[66] an increase by up to 100% in monthly rentals and impulse charges, as well as uniform call prices for residential and business customers.

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 CRI+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.

66 http://www.ratel.rs/editor_files/File/Regulativa/Odluke/ODLUKA_o_davanju_saglasnosti_Preduzecu_za_telekomunikacije_%27%27Telekom%20Srbija%27%27_da_izvrsi_promenu_cena_u_fiksnoj_telefoniji.pdf

In Turkey, CPI-3.3% has been applied to the fixed voice telephony basket until December 31, 2008, with the possibility of a one year extension.

In Albania, following a market consultation, 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. During 2009, Albania will be examining fixed retail tariffs using a Bottom-Up Long Range Average Incremental Costs methodology (BU-LRIC).

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 (prepared with technical assistance from the European Bank of Reconstruction and Development), a price cap method has been defined but not been 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 ranking in the figure below starts from the cheapest to the most expensive standard residential monthly rental.

Country	Standard residential monthly rental	Low usage residential monthly rental	Business monthly rental
Albania	€2.33	-	€8.56
Serbia	€2.60	-	€2.20
Bosnia & Herzegovina	€4.49-€5.11 (including €1.64-€2.70 of calls)	€1.86 (including €1.64-€2.70 of calls)	€8.36 (including €1.64-€2.70 of calls)
Montenegro	€5.97 (including €0.95 of calls)	€2.60	€5.10
Turkey	€6.98	-	€6.04
FYROM	€7.67	€4.24	€11.4
Kosovo	€8.07 (including €10.00 of calls)	€3.47	€21.47 (including €100.00 of calls)
Croatia	€10.13 (including €1.69 of calls)	€5.07 (including €2.72 of calls)	€9.69

Table 7 - Monthly subscription fees

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

On the evolution of the prices for residential monthly rental, the only significant recent changes have been in Albania, which has increased line rental charges by 20% and Serbia by 160%. Similarly for business monthly rental, the only recent significant changes have been 32% increase in Albania and 160% increase in Serbia.

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.

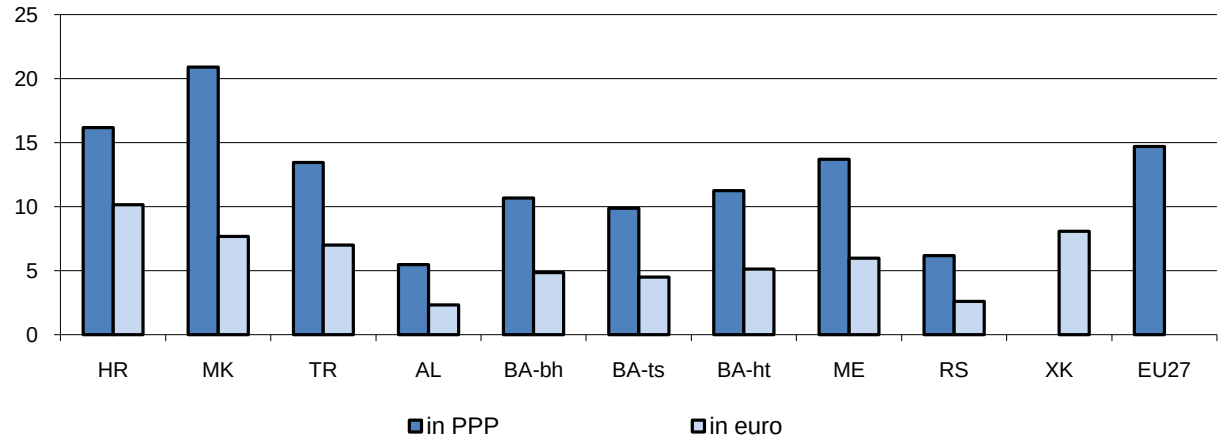


Figure 21 - Standard residential monthly rental in €/PPP and nominal euro, including VAT

Further increases in line rentals should be expected before some of the monitored countries approach closer to the EU-27 average level of €14.70 per month. This has been achieved in Croatia, with FYROM and Montenegro very close. 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	€10.00	€2.02	Same as residential	Same as residential
Turkey	€3.13	€3.13	Same as residential	Same as residential
Serbia	€66.59	€4.96	€112.87	Same as residential
FYROM	€23.83	€7.67 (monthly rental)	Same as residential	€11.40 (monthly rental)
Croatia	€84.45	€10.13	Same as residential	Same as residential
Montenegro	€65.00	€12.5	Same as residential	Same as residential
Bosnia & Herzegovina	€36 to €54	€36 to €54	Same as residential	Same as residential
Albania	€116.00	€116.00	Same as residential	Same as residential

Table 8 - 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 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 exception is Albania where the prices are the same. Albanian charges are also the highest among the monitored countries, by a very significant margin.

Initial connection charges are higher than monthly rental charges, ranging from 25% difference in Kosovo to being 50 times greater in Albania. The exception is Turkey, where connection charges are actually 50% lower than monthly rental charges. On average, however, initial connection charges are 12 times higher than monthly rental charges (i.e. an initial connection, on average, costs as much as one year in rental charges).

Initial connection charges have been reduced recently in Turkey by 13%, in Albania by 14%, Bosnia & Herzegovina by 10-25% and in Montenegro by 17%.

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. Only in Croatia and FYROM, alternative service providers are quoting slightly cheaper local call prices. In Albania, Bosnia & Herzegovina, Montenegro and Kosovo, the local call tariffs of alternative operators by far exceed the incumbents' prices. There are no fixed network local call competitors in Turkey and Serbia.

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

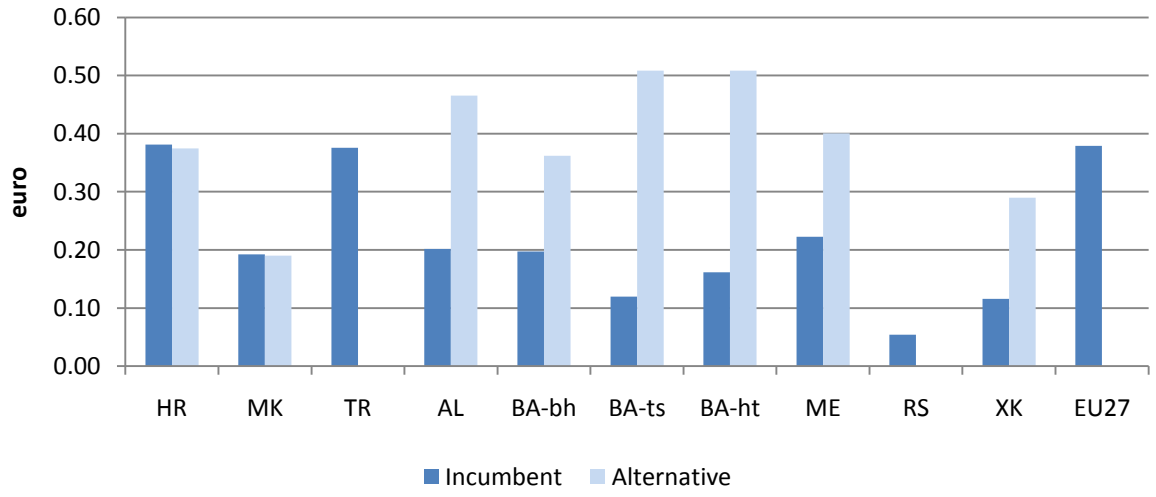


Figure 22 - 10-minute local call charges in euro for residential users, including VAT

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

In FYROM, Turkey and Montenegro, it is cheaper to use an alternative operator for a 3-minute long distance national call. In Serbia, there are no alternative providers, while 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.

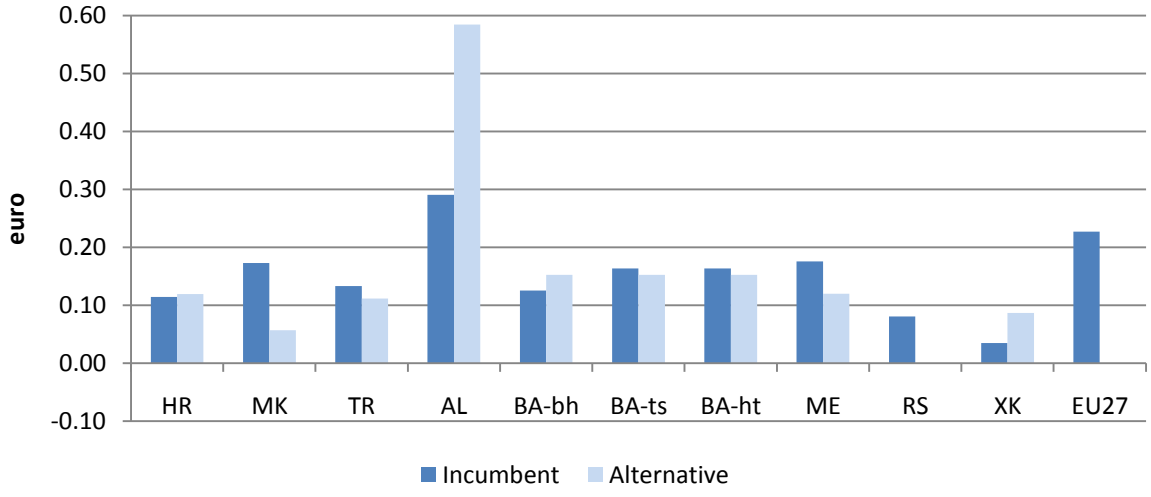


Figure 23 - 3-minute national call charges in euro for residential users, including VAT

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 €0.26 in Bosnia & Herzegovina to €0.95 in Albania, which remains the most expensive in the region even after the reductions implemented in 2008. The charges in Croatia also remain relatively high at €0.8.

In Bosnia & Herzegovina, where the differences are smallest, a 3 minute call from a residential fixed line to a mobile number is 1.8 times more expensive than national calls to fixed lines. In Croatia, fixed to mobile calls are 7 times more expensive, but the difference is largest in Kosovo, where fixed to mobile calls are 16 times more expensive.

Country	3 minute fixed to mobile call	3-minute fixed national call	Price Ratio
Bosnia & Herzegovina	€0.26-0.28	€0.13-0.16	1.8
Albania	€0.92	€0.29	3.2
FYROM	€0.8	€0.17	3.3
Montenegro	€0.67	€0.18	3.8
Turkey	€0.56	€0.13	4.2
Serbia	€0.36	€0.08	4.5
Croatia	€0.8	€0.11	7.0
Kosovo	€0.56	€0.03	16
Weighted SEE Average	**€0.56**	**€0.14**	**4.1**

Table 9 - Comparison of charges for fixed network calls to mobile subscribers and for national fixed calls

The weighted average for the SEE region is €0.56 for a 3 minute fixed to mobile call, which is 4.1 times the regional average for a fixed national call.

In the fixed to mobile market, competitive conditions do not appear to have developed adequately in Albania and Bosnia & Herzegovina, where alternative operators' charges are higher than the incumbent's, as shown in the next graph.

In other monitored countries, with the exception of Serbia where no competitive alternative exists, customers can use alternative services that provide calls to mobile subscribers at the tariffs 6-15% lower than the incumbent's prices.

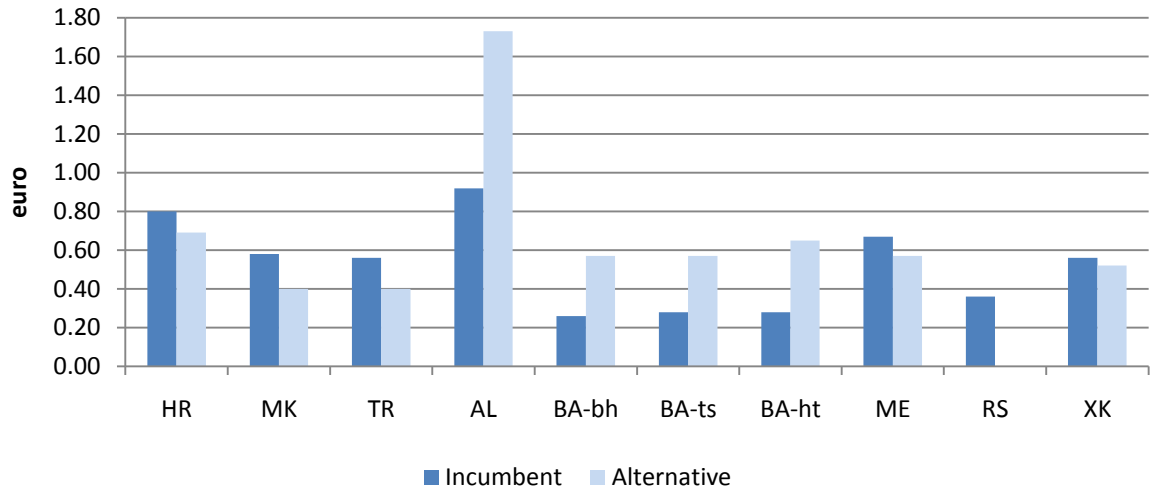


Figure 24 - 3-minute fixed to mobile call charges in euro for residential users, including VAT

8. International tariffs

The report compares the cost of a 10 minutes 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 is the cheapest.

Alternative operators are offering significantly lower prices than the incumbents for calls to the UK (average discounts across the region are 31% for residential customers and 38% for businesses) and to the USA (average discounts are 45% for residential customers and 48% for businesses). The largest discounts of over 60% are offered by alternative fixed operators in Bosnia Herzegovina and Kosovo, while the smallest discounts of less than 20% are to be found in Turkey and Croatia.

The 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.

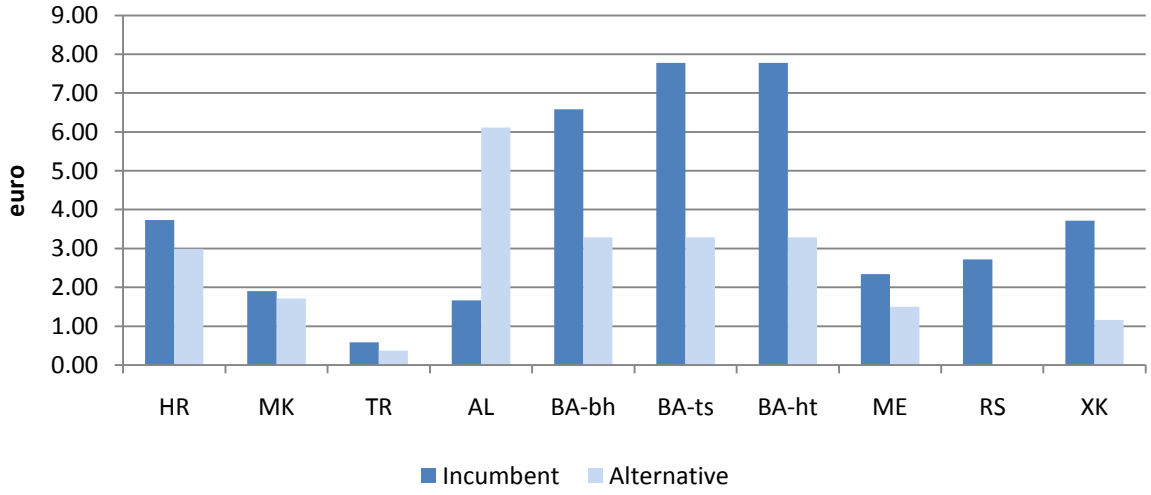


Figure 25 - Residential charges for a 10-minute call to the UK in euro, including VAT

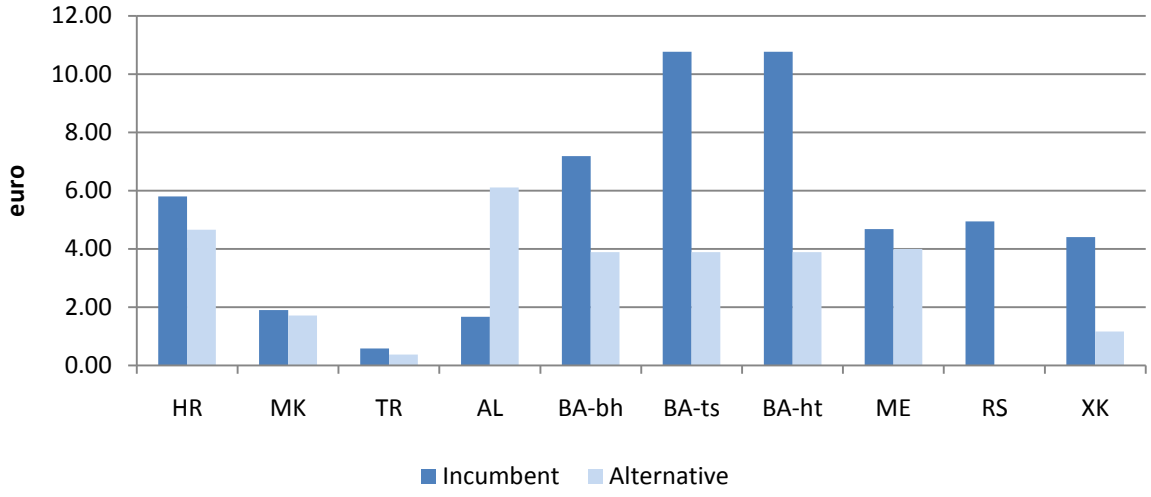


Figure 26 - Residential charges for a 10-minute call to the USA in euro, including VAT

H. 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. 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 for the first time for the monitored countries. This means that basket prices can be directly compared with the EU results which also use the 2006 OECD baskets. However, because the previous monitoring reports used the 2002 OECD baskets, the direct historical comparisons cannot be made.

A full description of the methodology used to calculate the 2006 OECD baskets can be found in the annex to this report.

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 €12.48 per month, according to the 14th Implementation report. The exceptions are mobile operators in Albania and HT Mostar in Bosnia & Herzegovina.

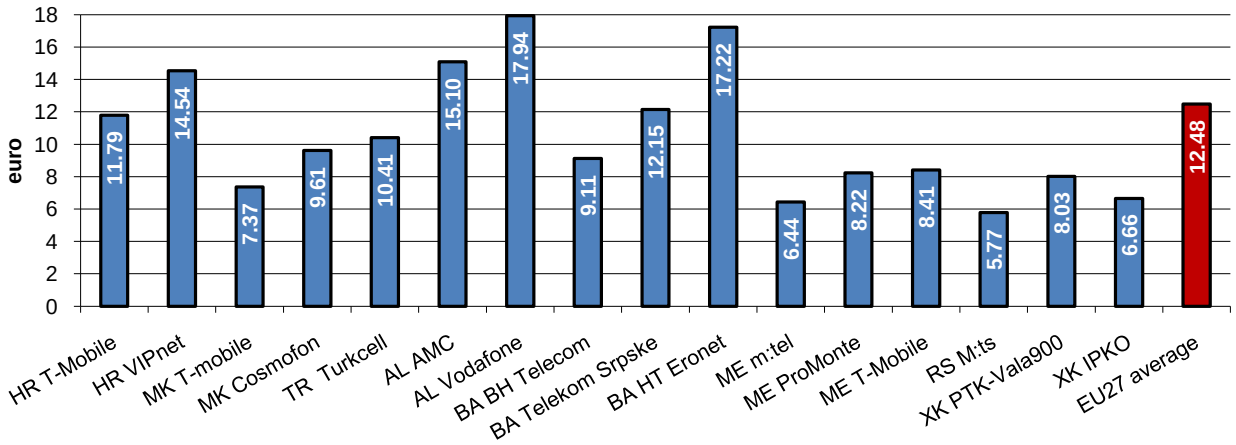


Figure 27 - Low usage basket in euro per month, including VAT

For medium usage baskets, where the EU average price is €21.37, offerings in Turkey, Albania and Bosnia & Herzegovina all remain significantly higher, while Croatia, FYROM, Montenegro and Serbia have at least one offering below than average EU charges.

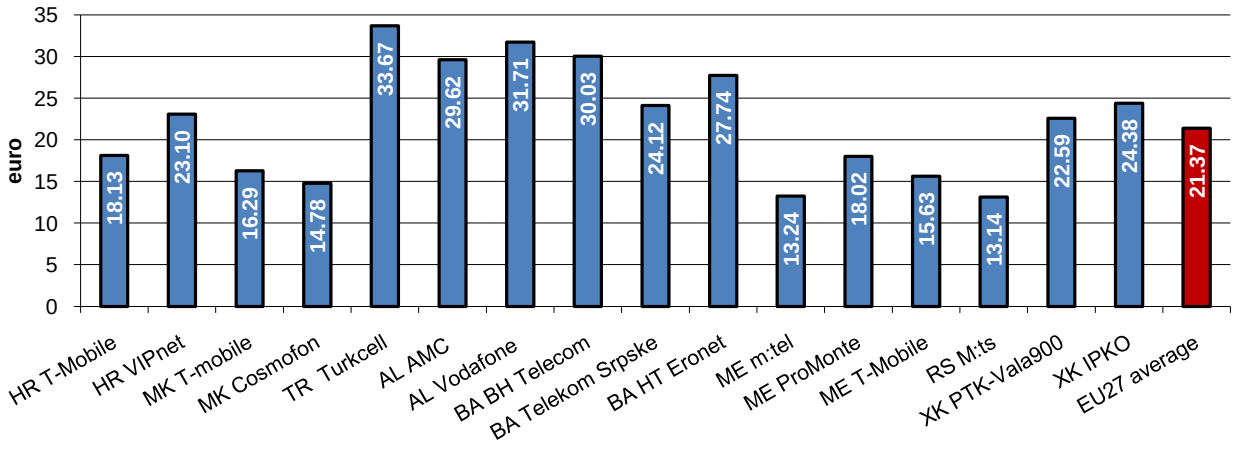


Figure 28 - Medium usage basket in euro per month, including VAT

For high usage baskets, Albania, Turkey and Bosnia & Herzegovina are significantly above the EU average of €35.28, while other countries, notably Croatia, FYROM, Montenegro and Serbia offer better deals.

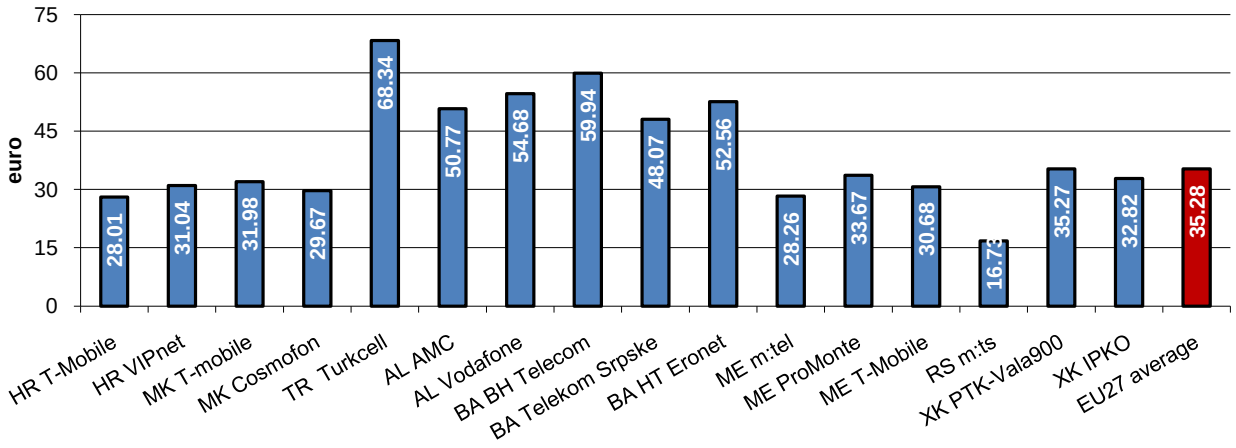


Figure 29 - High usage basket in euro per month, including VAT

I. 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 14th 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 10 years and now stand at €7,044 per year (excluding VAT) for 2 Mbps and €34,244 per annum for 34 Mbps[67]: 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 Enlargement countries, leased line prices have remained substantially unchanged over the last four years, as the charts below demonstrate. 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 €459 in Turkey to €1,939 in Albania.

[67] http://ec.europa.eu/information_society/policy/ecomm/implementation_enforcement/index_en.htm

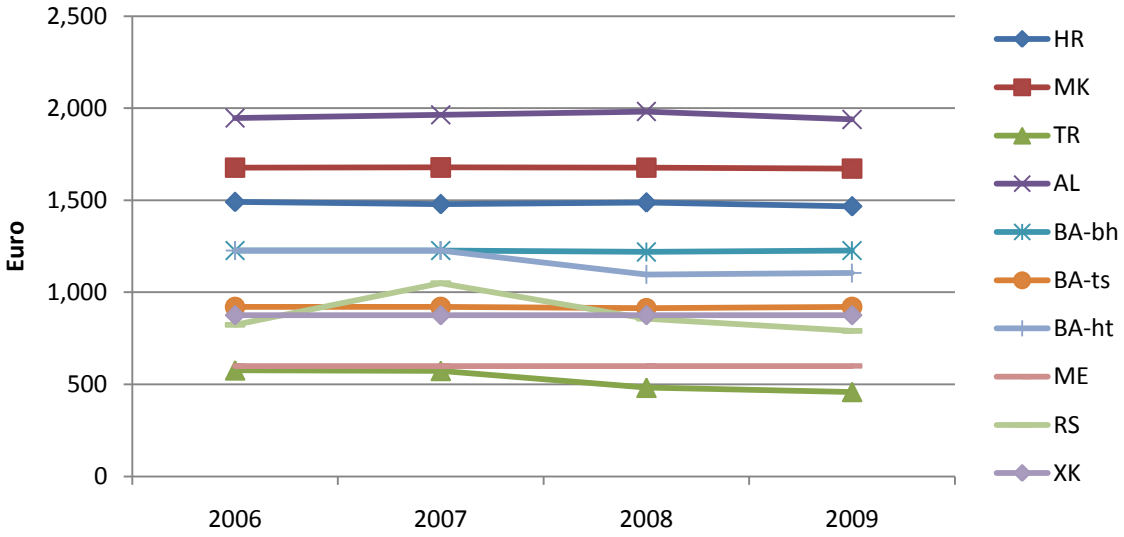


Figure 30 - Annual retail prices for 2 km 64 kbps leased lines

Turkey also has the lowest annual charges among the monitored countries for 2 km 2 Mbps leased lines of €2,418. The highest annual prices for these offerings are in FYROM of €12,148. The EU average in 2008 was €7,044 per year.

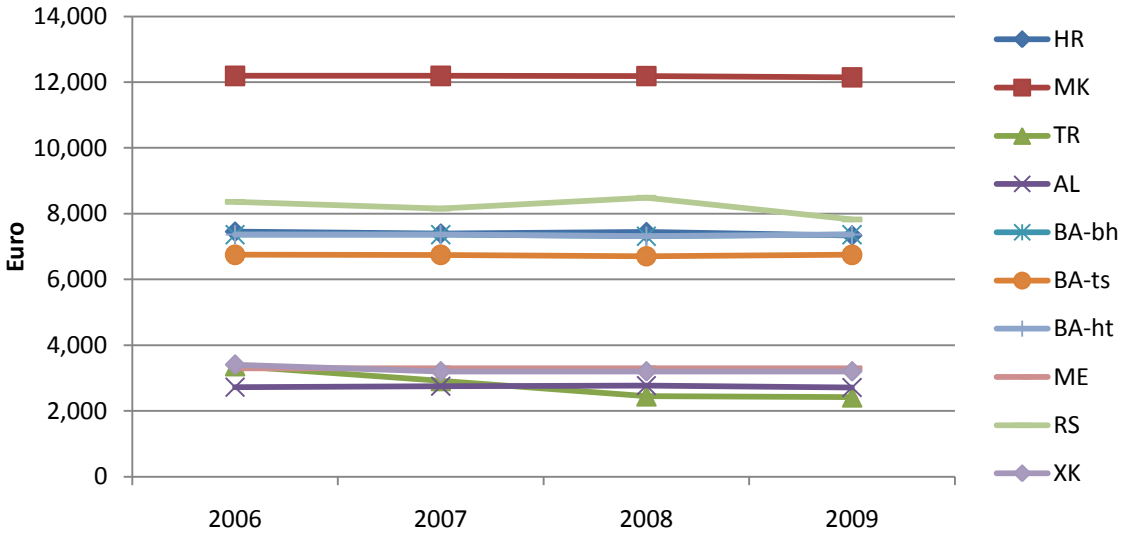


Figure 31 - Annual retail prices for 2 km 2 Mbps leased lines

For 34 Mbps, the lowest retail prices are in FYROM at 10,704 per year, followed by Turkey at €13,282 per year and Kosovo at €15,048 per year. The most expensive prices are in Serbia at €69,000 per year. The EU-27 average in 2008 was €34,244 per annum. In Albania, the prices for leased lines of 34 Mbps are not quoted.

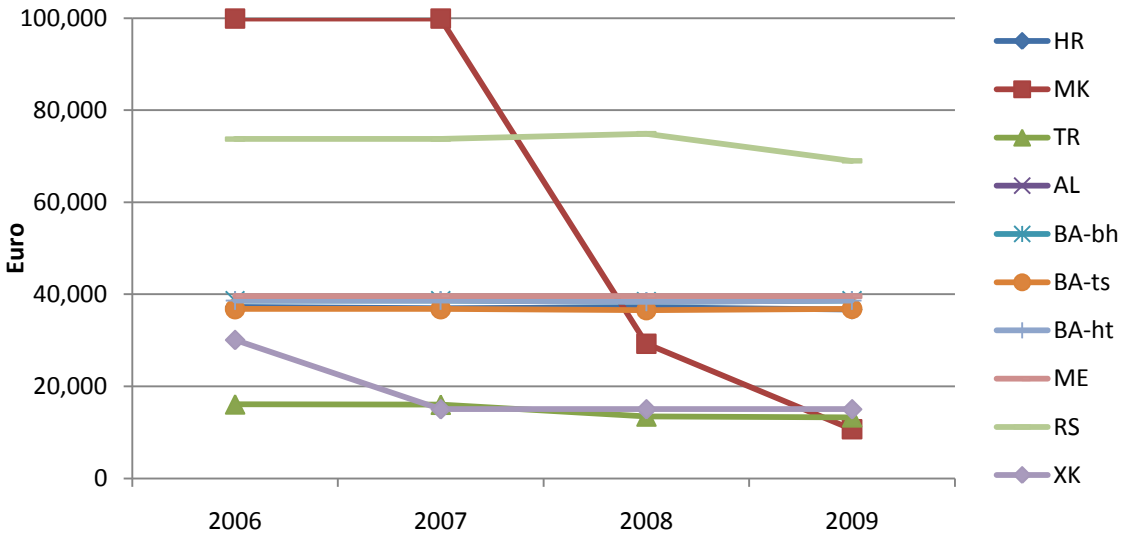


Figure 32 - Annual retail prices for 2 km 34 Mbps leased lines

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, tariffs have fallen to below €10,000 in all countries except Albania. In FYROM, the recent price reductions have been very significant and are now among the lowest in the monitored countries at €6,900 per year. Both, retail and wholesale leased lines prices in FYROM were reduced following a regulatory intervention. In September 2008, the NRA adopted two bylaws: on regulation of the minimum set of leased lines and on regulation of terminating and trunk segments of leased lines. New reference offers for the minimum set of leased lines and for the terminating and trunk segments of leased lines prepared by the incumbent operator Makedonski Telekom based on the new bylaws were approved by the NRA in December 2008.

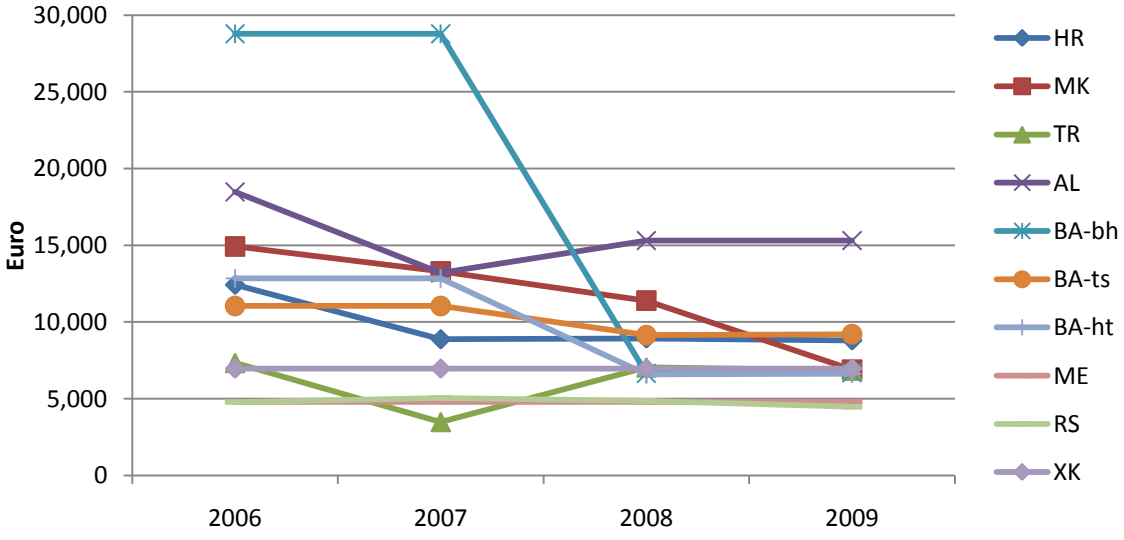


Figure 33 - Annual prices for international half circuits 64 kbps to near country

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.

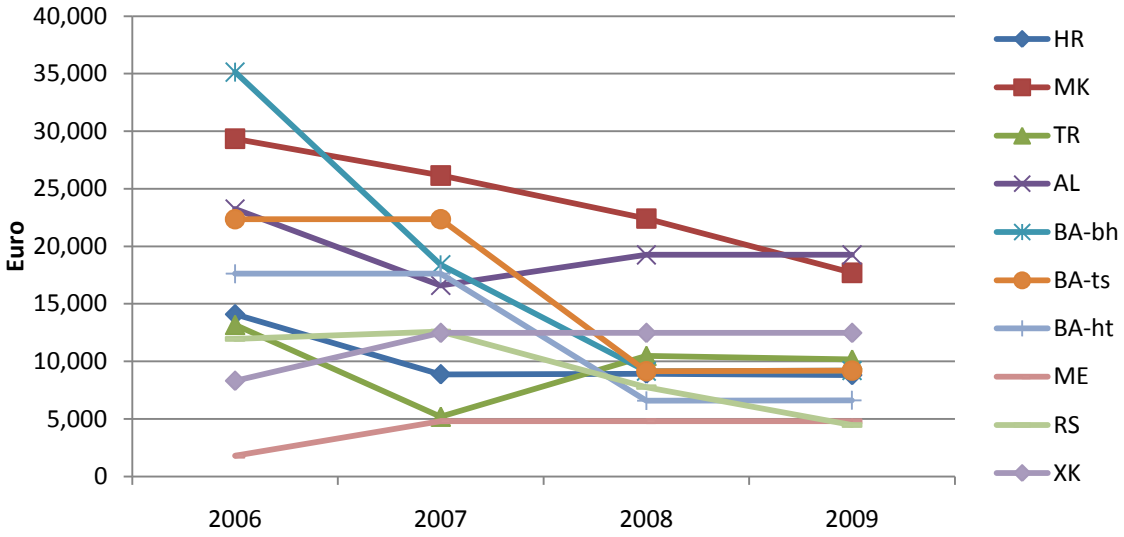


Figure 34 - Annual prices for international half circuits 64 kbps to the UK

For 2 Mbps half circuits to a near country, retail prices were reduced significantly, except in Albania, where they remain the highest in the region 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.

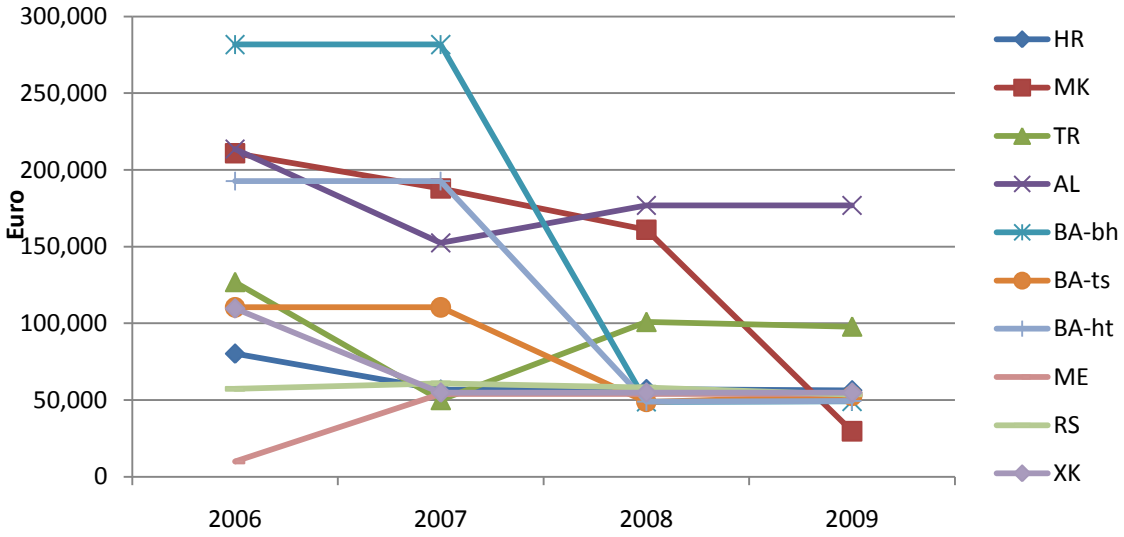


Figure 35 - Annual prices for international half circuits 2 Mbps to near country

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. Turkey also remains expensive at €165,000 per year. All other incumbents are keeping charges at below €100,000 per year.

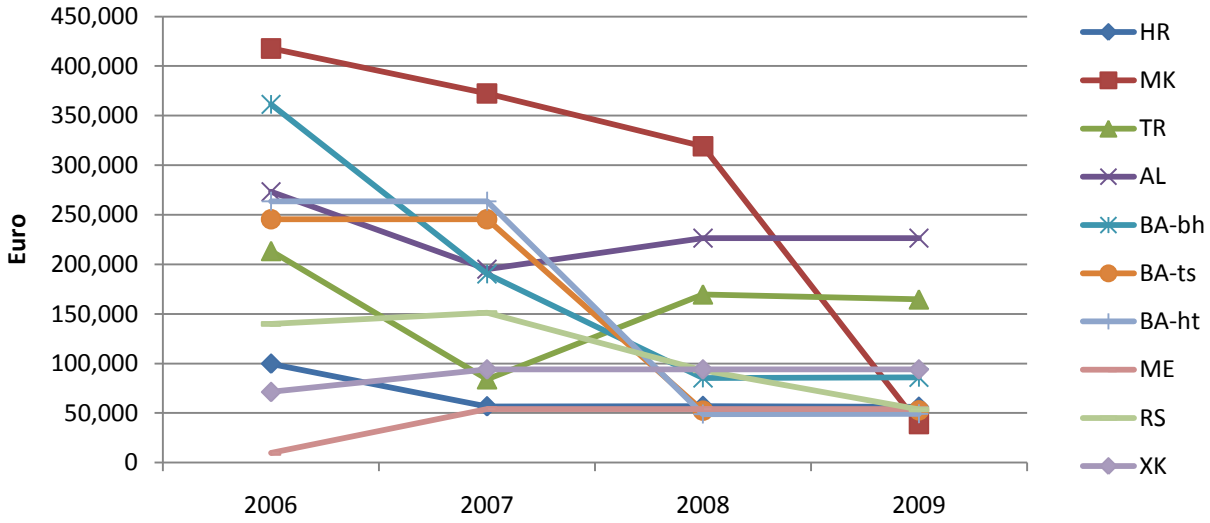


Figure 36 - Annual prices for international half circuits 2 Mbps to the UK

J. 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 just under €60. 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.

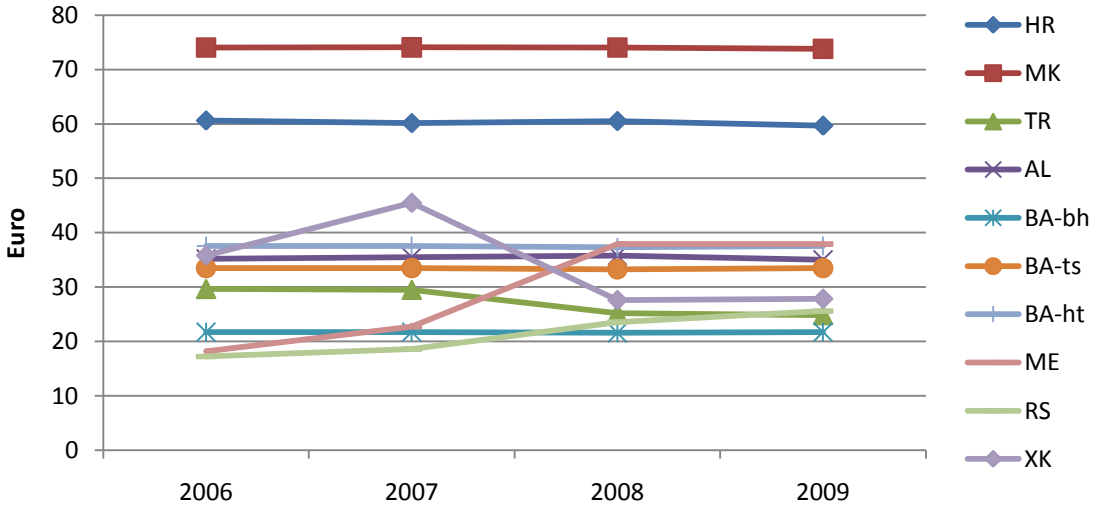


Figure 37 - Dial up Internet charges for 40 hours peak time, including VAT

2. Fixed broadband Internet access retail prices

According to a recent European Commission study on broadband Internet access cost, broadband subscription prices, with the exception of the lowest speed basket, on average decreased in the EU between April 2007 and April 2008.[68] As the lower speed offerings of 144-512 kbps are phased out, their prices are actually rising in the EU, making way for the higher speed offerings. Download speeds of 2 Mbps and above are becoming more common as a standard, but most countries still offer lower speeds. At the same time, in many of the EU member states broadband connections are now available with speeds above 10 Mbps.

The same study reports the EU-27 median retail prices for broadband subscriptions as of April 2008 calculated as total cost per month in €/PPP including VAT, for several baskets composed according to the offered speeds:

- Basket 144-512 kbps: €30.28 per month
- Basket 512-1024 kbps: €28.19 per month
- Basket 1-2 Mbps: €30.95 per month
- Basket 2-4 Mbps: €36.89 per month
- Basket 4-8 Mbps: €46.67 per month
- Basket 8-20 Mbps: €42.52 per month

This report analyses broadband offerings of the incumbent and the major alternative operator in each of the monitored countries with the following download speeds: 256 kbps, 512 kbps 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. Broadband offerings with the speed limit of 256 kbps or lower are not available commercially in FYROM, Turkey and Montenegro, while in Croatia, Serbia and Kosovo they are only offered by the incumbent operators.

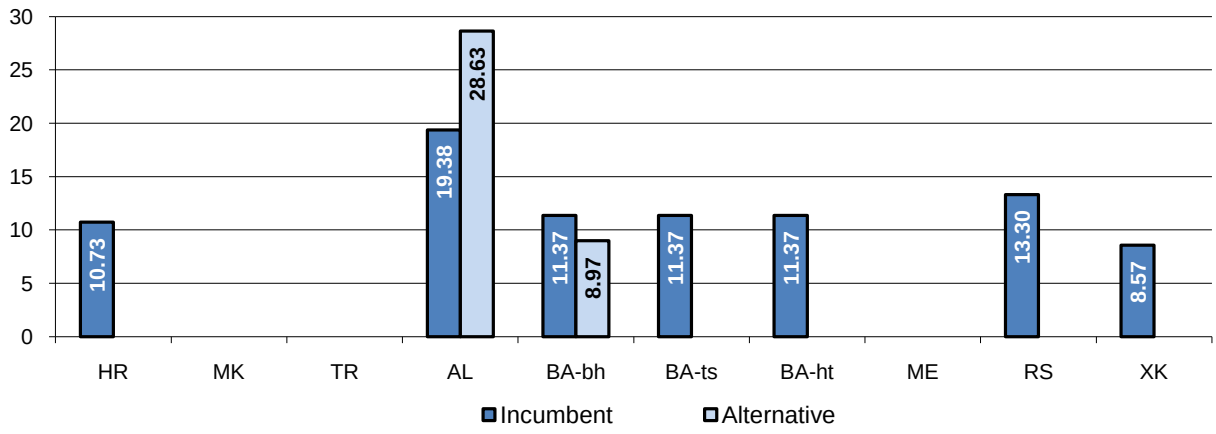


Figure 38 - Broadband 256 kbps monthly subscription charges in euro, including VAT

The monthly charges for a 256 kbps connection are rather similar in most of the countries, ranging from €8.57 in Kosovo to €13.30 in Serbia. The only exception is Albania with the highest charges among the monitored countries – above €19.

Broadband offerings with the speed limit of 512 kbps are available in most of the countries, with the exception of Turkey and Serbia. However, they are not offered commercially by alternative operators in Croatia and Kosovo. In Croatia, all alternative operators offer broadband connections with minimum download speed of 1024 kbps.

[68] BIAC - First half of 2008, Final report, December 2008, Van Dijk Management Consultants

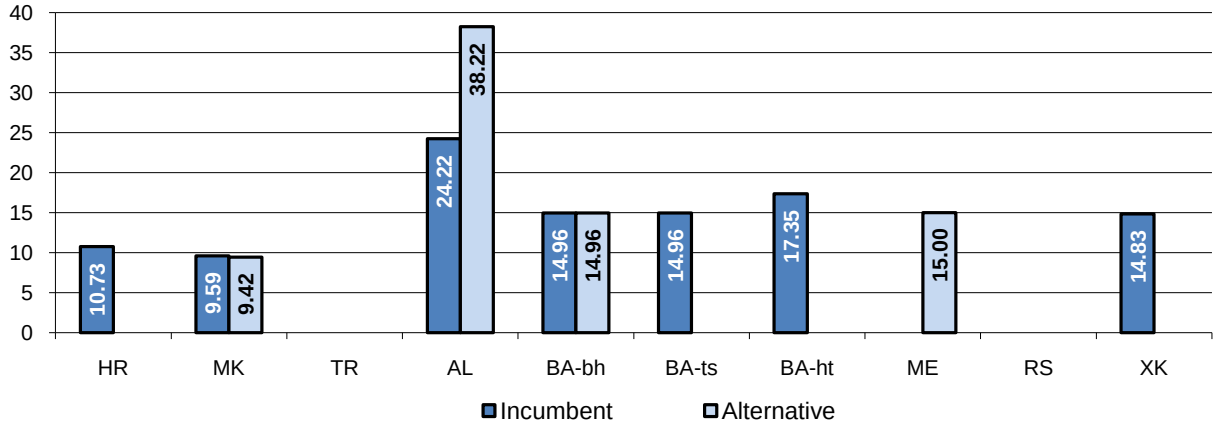


Figure 39 - Broadband 512 kbps monthly subscription charges in euro, including VAT

The lowest monthly charges for a 512 kbps connection are offered in FYROM – below €10. This charge, however, foresees a monthly quota of 10 GB. Once this quota has been exceeded, the access speed is reduced to 64 kbps. The Macedonian incumbent offers with 512 kbps speed with a wide range of data limits from 10 GB up to 30 GB at a maximum charge of €30.70 a month. In Croatia, 512 kbps connections are offered at the same monthly charge as 256 kbps connections. In Bosnia & Herzegovina, the three incumbents and a major alternative operator offer similar prices, however, the offering of BH Telecom foresees a monthly quota of 3 GB, HT Mostar – of 4 GB and an alternative operator – 8 GB, while Telekom Srpske offers a flat rate without any data limits. Albania has the highest monthly charges.

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.

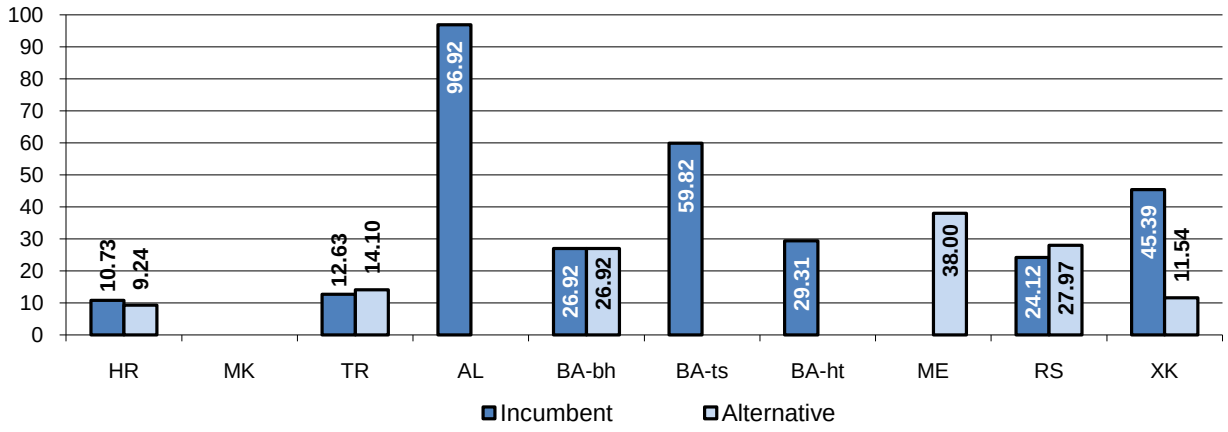
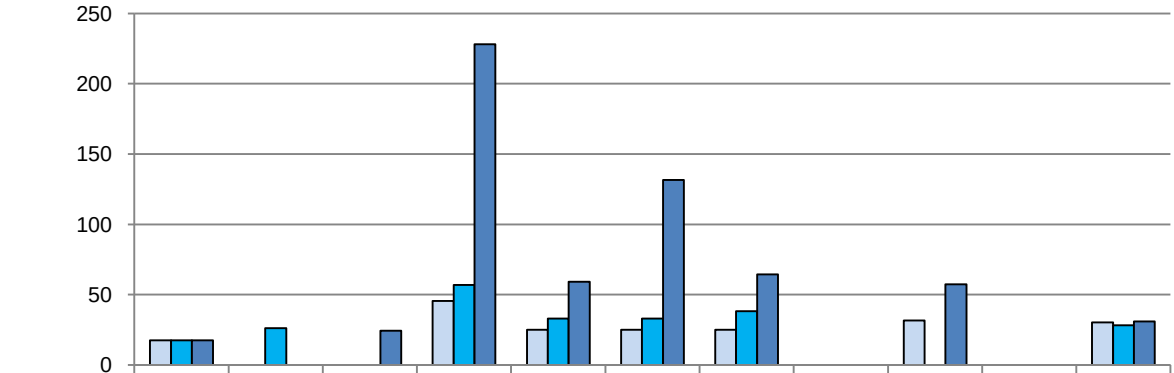


Figure 40 - Broadband 2 Mbps monthly subscription charges in euro, including VAT

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 €10.73 for the incumbent and even lower price of €9.24 for the alternative operator. At the other end of the scale, Albania is again the most expensive country with the prices almost ten times higher than in Croatia. In Bosnia & Herzegovina, the monthly subscription of Telekom Srpske at €59.82 is almost two times more expensive than the offerings of two other incumbents and the alternative operator. However, similarly to its 512 kbps subscription, Telekom Srpske offers 2 Mbps connections without any quotas, while offers of BH Telecom, HT Mostar and the alternative operator have quotas for data transfer of 8 – 12 GB per month.

The figure below compares broadband monthly subscription charges for 256 kbps, 512 kbps and 2 Mbps offerings of the incumbents in the monitored countries expressed in €/PPP, including VAT, with the EU-27 median offerings.[69] It does not include Montenegro, as the Montenegrin incumbent does not offer these speeds commercially to residential customers as explained above and it does not include Kosovo, as no €/PPP exchange rates are available for Kosovo yet.



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK	EU median
256 kbps	17.44			45.58	25.00	25.00	25.00		31.60		30.28
512 kbps	17.44	26.12		56.98	32.90	32.90	38.16				28.19
2 Mbps	17.44		24.30	227.97	59.22	131.59	64.48		57.29		30.95

Figure 41 - Comparison of broadband monthly charges by incumbents with the EU median offerings in €/PPP, including VAT

While 256 kbps and 512 kbps offerings appear to be priced in line with the EU median values, 2 Mbps offerings are in general more expensive, in particular in Albania and in Republika Srpska of Bosnia & Herzegovina.

K. 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 level[70]. As of October 2008, the weighted average EU-27 call termination charges were the following:

- Local level 0.57 eurocents per minute
- Single transit level 0.86 eurocents per minute
- Double transit level 1.16 eurocents per minute

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 Croatia and Kosovo where the termination of calls originating on mobile networks is higher than fixed to fixed call termination and is negotiated commercially between operators, outside the scope of RIOs.

[69] BIAC - First half of 2008, Final report, December 2008, Van Dijk Management Consultants

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

In three of the monitored countries, call termination charges on the incumbent's fixed network at the local level are set close to the EU average level (Croatia, FYROM and Albania). In Bosnia & Herzegovina and Serbia, the charges are about two times higher than the EU average, while in Montenegro and Kosovo, they are four and six times higher, respectively. In Turkey, call termination is not offered at the local level.

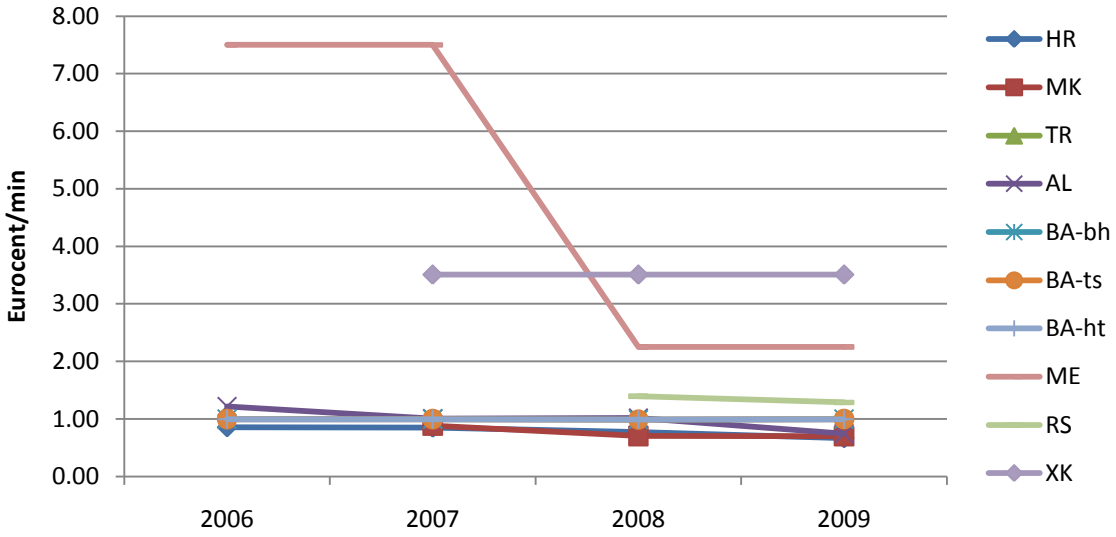


Figure 42 - Local call termination charges on the incumbent's fixed network, peak time

At the single transit level, call termination charges on the incumbent's fixed network are close to the EU average in FYROM and Turkey, about 40% higher in Croatia and 75% higher in Albania and Bosnia & Herzegovina. The charges in Serbia and Montenegro are about two and three times higher, respectively, than the EU average. In Kosovo, call termination is only offered at the local level.

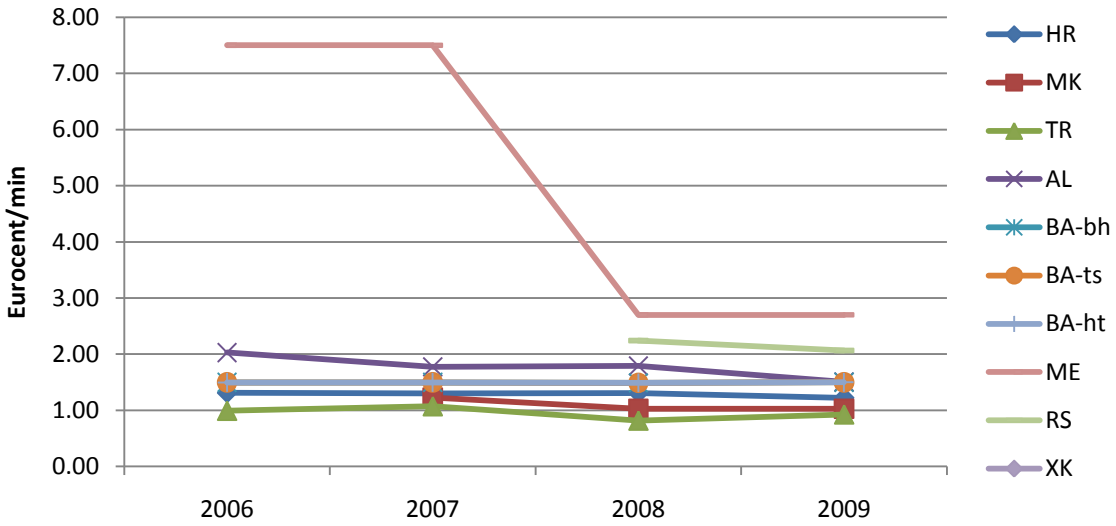


Figure 43 - Single transit call termination charges on the incumbent's fixed network, peak time

At the double transit level, call termination charges on the incumbents' fixed networks are some 25% higher than the EU average in FYROM and Turkey, some 60-75% higher in Croatia, Albania and Bosnia & Herzegovina and almost three times higher in Serbia.

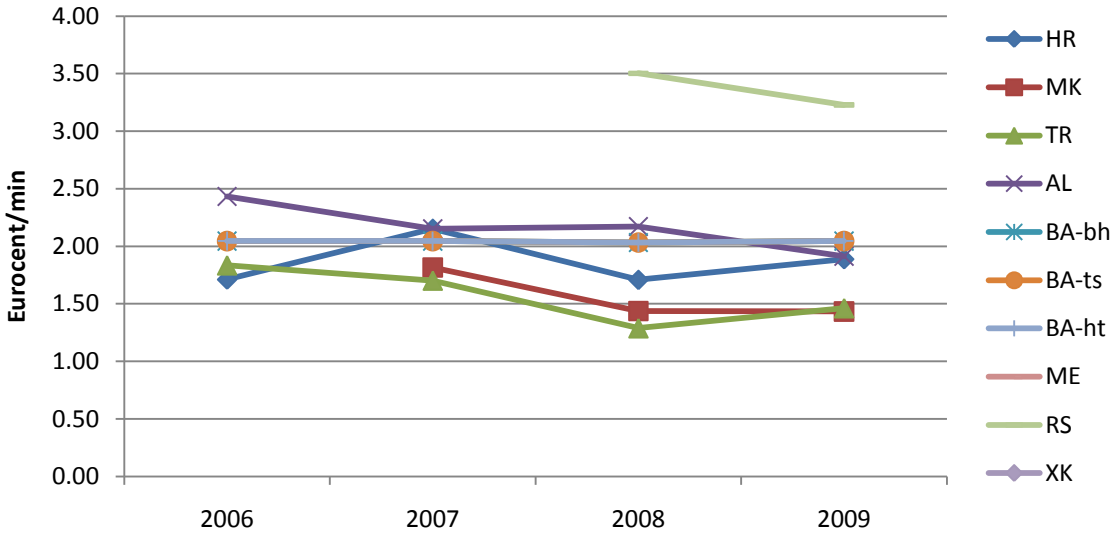


Figure 44 - Double transit call termination charges on the incumbent's fixed network, peak time

In general, fixed call termination charges in most of the monitored countries have remained relatively stable between 2006 and 2009. The major reductions, however, took place in FYROM, Albania and Montenegro. Certain fluctuations in other countries can be explained to some extent by the exchange rate changes, for example, in Croatia the national currency appreciated against euro between 2008 and 2009, which offsets some reductions in the termination rates. The highest level of fixed call termination charges has been reported in Montenegro and Kosovo.

Figure 45, Figure 46 and Figure 47 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 14th Implementation Report[71].

In Croatia, Albania and Montenegro the alternative operators' fixed termination rates are set at the level slightly above the incumbent's single transit call termination. In Bosnia & Herzegovina the alternative operators' fixed termination rates are reciprocal with the incumbents' at the respective network level. Fixed to fixed call termination charges are also reciprocal in Kosovo, where call termination is only offered at the local level.

In Turkey and Serbia, there are no alternative fixed networks, while in FYROM interconnection charges of alternative fixed network operators are confidential.

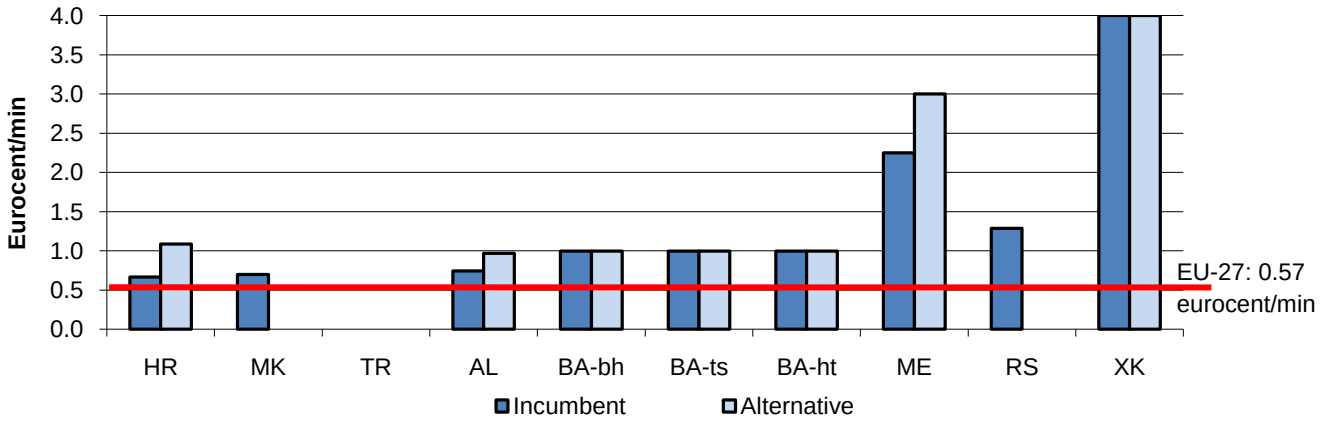


Figure 45 - Local call termination on the fixed incumbent and alternative network

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

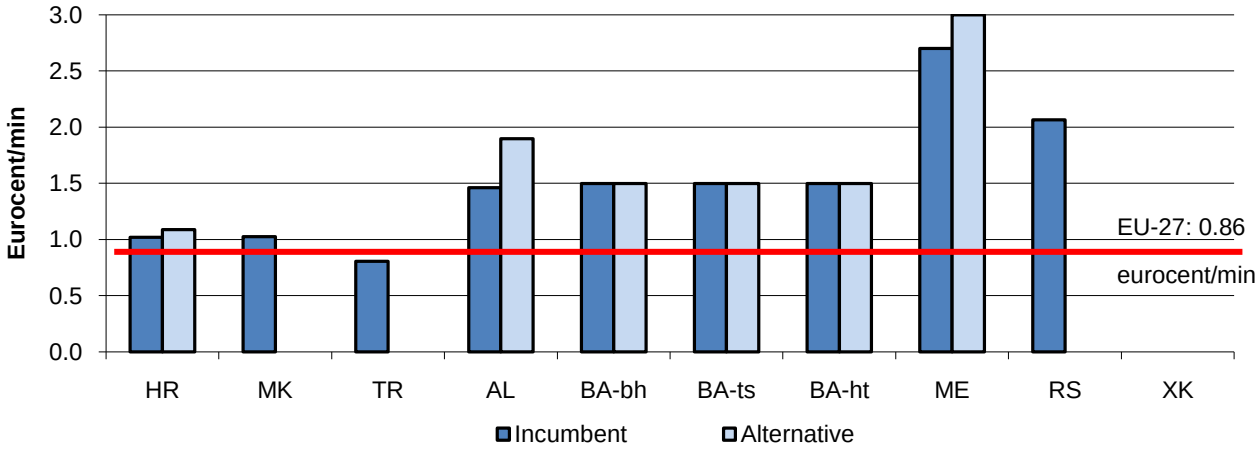


Figure 46 - Single transit call termination on the fixed incumbent and alternative network

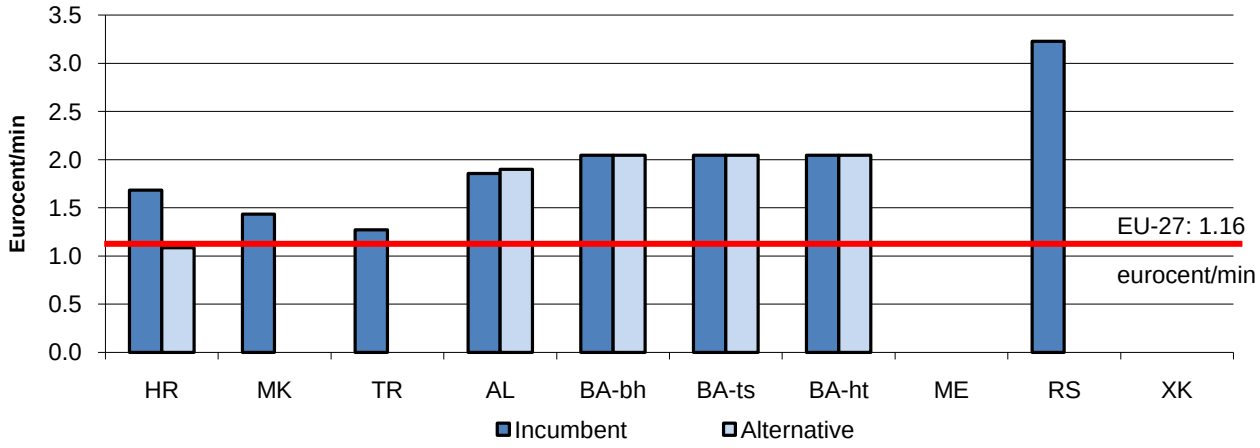


Figure 47 - Double transit call termination on the fixed incumbent and alternative network

2. Call termination on mobile networks

As in the EU, 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 14th Implementation report, the weighted average EU-27 termination charges on mobile networks between 2005 and 2008 fell by 32%[72]. As of October 2008, the weighted average EU-27 mobile call termination charge was 8.55 eurocents per minute.

Figure 48 illustrates the developments in mobile termination rates in the monitored countries between 2006 and 2009. 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

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

through the fixed networks. The differences between fixed to mobile and mobile to fixed termination rates are further addressed in Figure 49.

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.

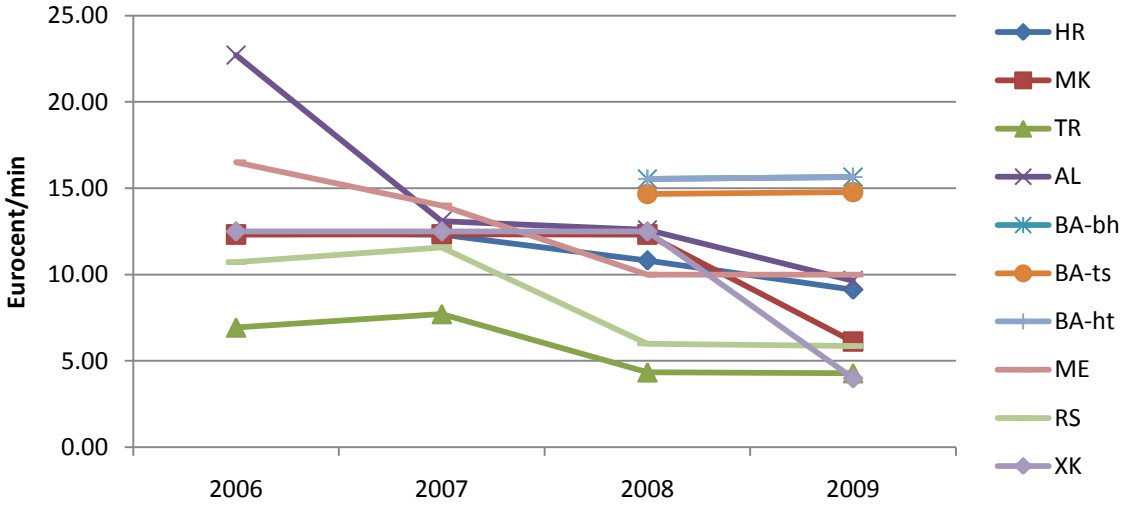


Figure 48 - Fixed to mobile termination rates, peak time

Between 2006 and 2009, mobile termination rates fell by more than half in Albania and FYROM, by some 80% in Serbia, by more than 60% in Turkey and Montenegro and by 36% in Croatia.

The figure below shows the current mobile termination rates of all mobile operators in the monitored countries that entered in force as of January 1, 2009 (or in some cases, a later date in early 2009). Mobile termination rates in FYROM, Turkey and Serbia are set at the level below the EU average, while in Croatia and Albania they are only slightly above the EU average. At the same time, in Bosnia and Herzegovina fixed to mobile termination rates are significantly higher than the EU average rate, in particular when the call originates on a network that does not belong to the same group as the mobile operator.

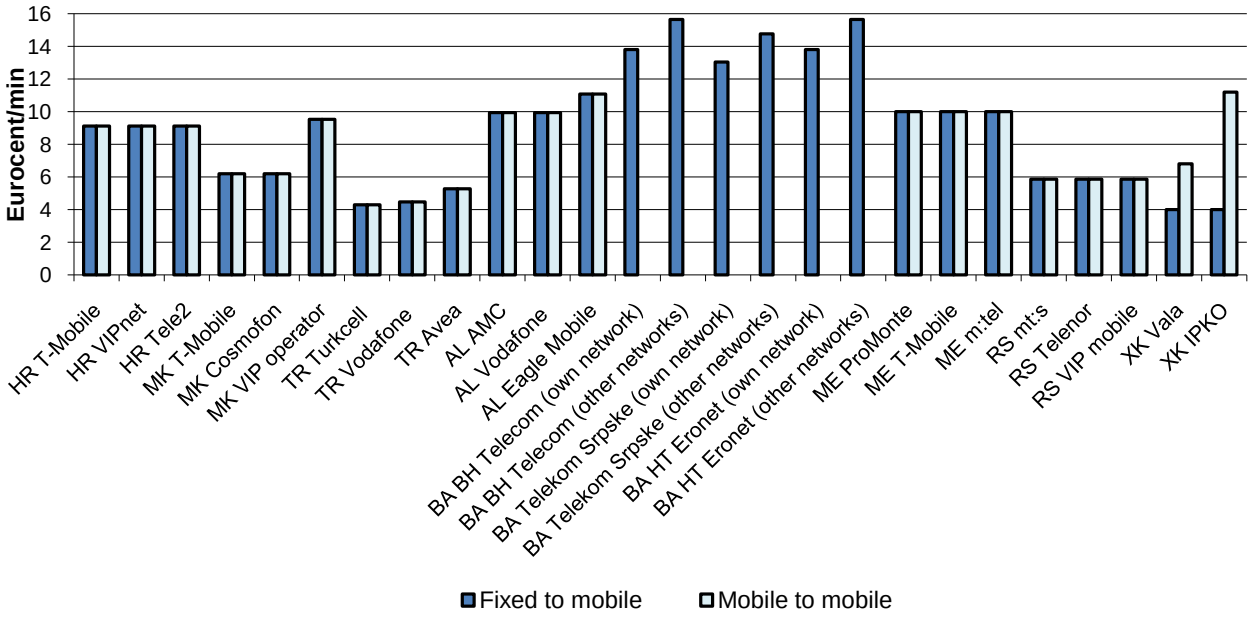


Figure 49 - Mobile termination rates as of January 1, 2009, peak time

3. Local loop unbundling charges

Local loop unbundling so far has been implemented only in three countries: Croatia, FYROM and Turkey. Figure 50 and Figure 51 below compare the one-off connection charges and monthly rental prices for full and shared LLU access in the three monitored countries and the EU-27 averages according to the 14th Implementation report.[73] The connection charges in Croatia and Turkey are comparable to the EU average, although the Croatian charges for shared access are almost 40% higher than the EU average. The connection charges in FYROM cannot be directly compared with the two other countries or with the EU average as the prices as set per a block of 100 loops. The Macedonian connection prices may further differ depending on the form of collocation – the option shown in the figure below uses physical collocation.

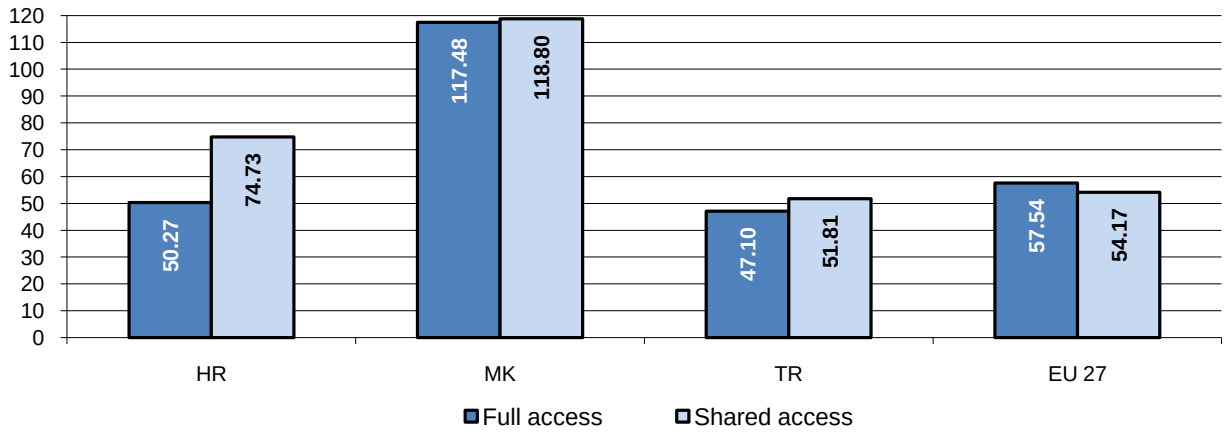


Figure 50 - Connection prices for fully unbundled loop and shared access

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

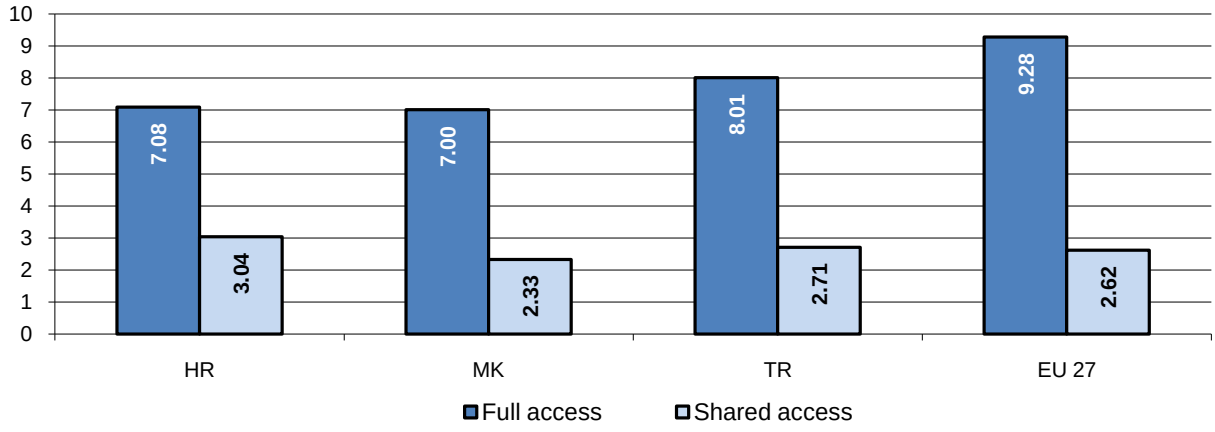


Figure 51 - Monthly rental prices for fully unbundled loop and shared access

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

L. Information society statistics

A Council Resolution[74] of 2003 and a Regulation[75] of the European Parliament and the Council adopted in 2004 defined indicators and required Member States to collect certain information in order to measure progress toward the objectives defined in Lisbon in March 2000 and the *e*Europe action plan of 2002. The collected data are published regularly by Eurostat.[76] The *e*Europe benchmarking is being further developed under the i2010 Benchmarking Framework[77], as endorsed by the i2010 High Level Group in April 2006. Commission Regulations adjust the legal framework annually.[78]

1. Bodies responsible for information society statistics

In most of the monitored countries, the national statistics institutes are responsible for information society indicators. In Croatia, FYROM, Turkey and Serbia these institutes already gather and publish data. Their statistics are also integrated with Eurostat[79] data and publications, albeit not yet with the level of detail and the regularity used in EU Member States.

The national statistics institutes are also responsible for information society statistics in Albania and Kosovo, but as yet no data have been published. Albanian INSTAT has started to include information survey indicators in its household survey in 2008 and is planning to include such indicators in its periodic surveys of enterprises.

In two countries, Montenegro and Bosnia & Herzegovina, the body responsible for the development of the information society is or will be responsible for information society statistics, although data collection is done by other entities. In Bosnia & Herzegovina, the Agency for Development of the Information Society (ARID), which is not yet established, will be responsible for information society statistics. Data collection will be performed by the statistics institutes. In Montenegro, the recently established Ministry for Information Society is the responsible body. Montenegro provided data collected by the non-governmental organisation CEMI[80] (for this report) and by the independent economic institute ISSP[81] (for the previous reporting period).

2. Available data on information society statistics

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

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

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

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.

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

[75] Regulation (EC) No 808/2004 of the European Parliament and the Council of April 21, 2004 concerning Community statistics on the information society

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

[77] http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/060220_i2010_benchmarking_framework_nov_2006.doc

[78] See Commission Regulations (EC) No 1099/2005, 1031/2006, 847/2007 and 960/2008.

[79] http://epp.eurostat.ec.europa.eu/

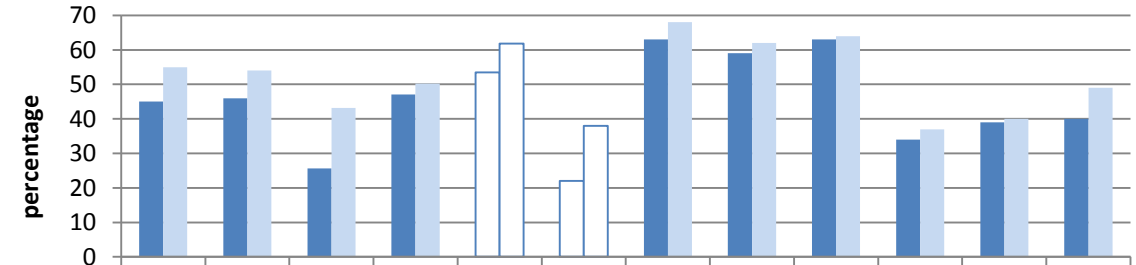
[80] http://www.cemi.cg.yu/english/razno/onama.php

[81] http://www.isspm.org/

The eSEEurope Initiative collected data on broadband penetration, e-government services, and computers and Internet access in schools.[82]

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.



	HR	MK	TR	RS	ME	XK	EU-27	SI	HU	RO	BG	GR
Female	45	46	26	47	54	22	63	59	63	34	39	40
Male	55	54	43	50	62	38	68	62	64	37	40	49

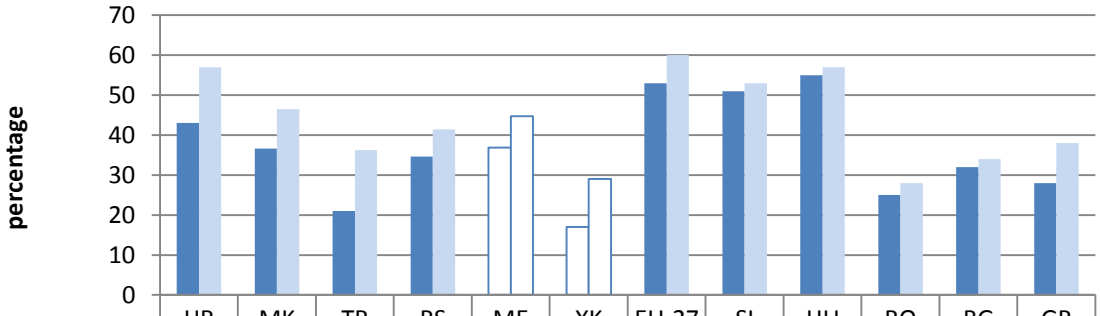
Figure 52 - Percentage of individuals regularly using computers

Croatia, FYROM, Turkey and Serbia reported new data from surveys conducted by the respective statistics institutes in early 2008. Montenegro also reported new data of July 2008, based on research of the Centre for Monitoring (CEMI), which cannot be directly compared to the data from other countries. In all countries which reported new data from 2008, the values are significantly higher than those of the previous report. According to the new data, in particular Montenegro, Croatia, FYROM and Serbia are now much closer to the EU-27 average and well above Romania and Bulgaria. However, it is unclear to what extent these differences are based on changes of the used methodology. The figure therefore only shows the most recent data and no time series. Montenegro and Kosovo are shown in a different colour, as the methodology is not comparable with other countries.

Obvious gaps between male and female computer usage exist in Turkey (18%), Kosovo (16%), Croatia (10%), FYROM (9%) and Montenegro (8%). These gender gaps are significantly larger than in most EU member states. Only Greece (40% female, 49% male), Italy (40% female, 51% male) and Portugal (42% female, 50% male) show similar differences, while Austria, Germany and Luxembourg have significant gender differences, but at higher levels of use. The data reported by Croatia shortly before the publication of this report show the following inconsistency that could not be resolved: according to the Croatian data, 45% of females and 55% of males regularly use computers, but only 46% of the total population.

The following figure shows Internet usage by individuals. Data on Croatia, FYROM, Turkey, Serbia and Montenegro stems from the same surveys as mentioned above. Kosovo submitted estimates. Montenegro and Kosovo are again shown in different colour, as the methodology cannot be compared with the other countries. For comparison, the figure also shows Eurostat data on the EU-27 average and other countries in the region.

[82] http://www.stabilitypact.org/wt2/eSEEKeyDocuments.asp



	HR	MK	TR	RS	ME	XK	EU-27	SI	HU	RO	BG	GR
Female	43	37	21	35	37	17	53	51	55	25	32	28
Male	57	47	36	41	45	29	60	53	57	28	34	38

Figure 53 - Individuals regularly using the Internet

All monitored countries, where data are available, show significantly lower Internet usage than the EU-27 average. FYROM and Serbia reported a significant increase in comparison with the data of the previous report (about +15%). Both countries, as well as Montenegro, now have significantly higher Internet usage than Romania, Bulgaria and Greece. The value for Albania cannot be directly compared to data of other countries, because it is based on estimates by Internet service providers and not on a household survey.

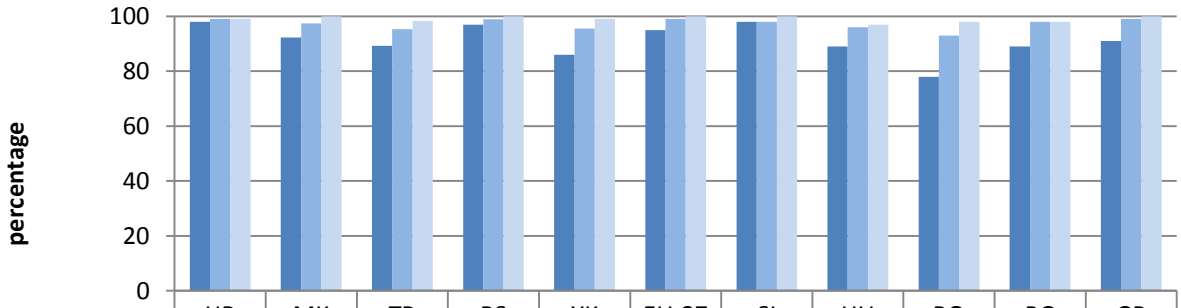
Croatia, Kosovo and Turkey reported gaps of about 12-15% between female and male Internet usage. Again, the data delivered by Croatia shortly before the publication of the report show another inconsistency that could not be resolved: Croatia reported that 43% of females and 57% of males regularly use the Internet, but only 43% of the total population.

4. Computer and Internet usage by enterprises

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

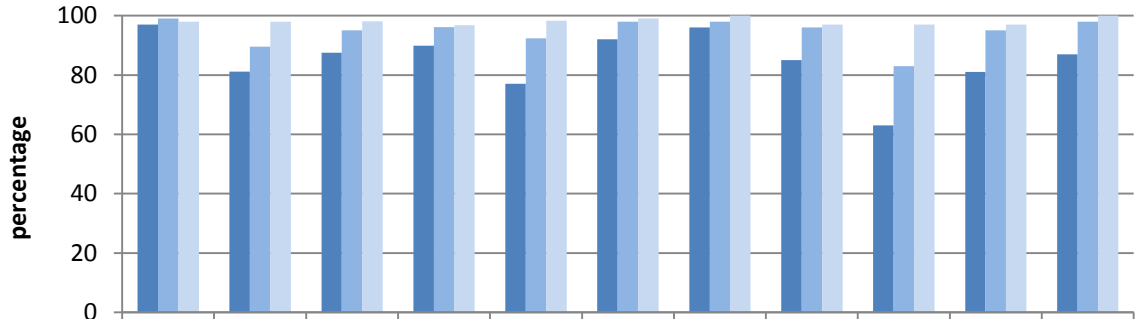
Reliable data on computer and Internet usage by enterprises is available in four of the monitored countries: Croatia, FYROM, Turkey and Serbia. In these four countries the national statistics institutes conduct surveys. Montenegro and Kosovo delivered for the previous report data from surveys of other institutes and both could not provide newer data. In Albania, INSTAT is planning to include such indicators into its periodic surveys.

The available data for Montenegro are not grouped by enterprise size and therefore not shown in the figures. According to the ISSP ICT survey of December 2007, 92.9% of Montenegrin enterprises used computers and 90.5% had Internet access.



	HR	MK	TR	RS	XK	EU-27	SI	HU	RO	BG	GR
Small	98	92	89	97	86	95	98	89	78	89	91
Medium	99	97	95	99	96	99	98	96	93	98	99
Large	99	100	98	100	99	100	100	97	98	98	100

Figure 54 - Enterprises using computers



	HR	MK	TR	RS	XK	EU-27	SI	HU	RO	BG	GR
Small	97	81	88	90	77	92	96	85	63	81	87
Medium	99	90	95	96	92	98	98	96	83	95	98
Large	98	98	98	97	98	99	100	97	97	97	100

Figure 55 - Enterprises having access to the Internet

Almost all enterprises use computers and have access to the Internet. Significant differences between the monitored countries are only visible with regard to small enterprises, and Internet access is a more significant criterion than computer usage. In Croatia, almost all small enterprises use computers (98%) and the Internet (97%). Serbia also shows similarly high values as the EU-27 average and the newer data reported by Turkey are only some percent below.

In FYROM and Kosovo about a fifth of small enterprises does not have Internet access. In FYROM this value is based on a survey of December 2008, whereas data for Kosovo has not been updated since the previous report.

M. Network and information security

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

- the regulatory framework on electronic communications requires providers of publicly available electronic communications services to safeguard the security of their services, but also deals with specific questions such as spam and cookies (Directive on Privacy and Electronic Communications[83]);
- the fight against cybercrime, through the adoption of a framework decision[84] (which echoes the Council of Europe Convention on Cybercrime[85]) and some other initiatives more specifically aimed at protecting minors;
- specific network and information security measures.

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

1. Network security obligations for providers of communications services

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

[83] Directive 2002/58/EC of the European Parliament and the Council of July 12, 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on Privacy and Electronic Communications).
[84] Council Framework Decision 2005/222/JHA of February 24, 2005 on attacks against information systems.
[85] Convention on Cybercrime, ETS No. 185.

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

All monitored countries have transposed this provision into their national legislation, where it can typically be found in the Telecommunications Law or the Electronic Communications Law, though in Turkey it is in secondary legislation. Albania, Croatia and Montenegro, which adopted new laws in 2008, already had such a provision in their previous laws. These obligations always apply to operators who offer their services “to the public” (in Turkey: “for profit”), although the detailed definition of the scope of providers covered by the legislation varies.

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

Most countries have transposed the provision in the general form of the Privacy Directive, i.e. they require “appropriate” measures without specifying details, with the exception of Turkey.[86]

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. Another example is Iceland.[87] 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.

2. Cybercrime

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

- A Council Framework Decision[88] on attacks against information systems that provides that committing, commissioning, attempting, instigating or abetting the following acts, intentionally and unlawfully, is a criminal offence:
  - accessing the whole or part of an information system (i.e. 'hacking');
  - interfering with an information system (such as the sending of viruses or 'denial of service attacks') to seriously interrupt or hinder its functioning;
  - interfering with computer data (e.g. alteration, deletion, damaging of data) on an information system (even in the absence of damage to a person).

[86] 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.

[87] Regulation on the functionality of public communications networks, December 10, 2007, http://www.pta.is/file.asp?id=1872

[88] Council Framework Decision 2005/222/JHA of February 24, 2005 on attacks against information systems.

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

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

Croatia, FYROM, Albania, Bosnia & Herzegovina and Serbia ratified the Convention on Cybercrime. Serbia and Montenegro signed the convention on April 7, 2005, about one year before the separation of the two countries. Serbia ratified it in April 2009, but Montenegro has not yet done so. In Kosovo, ratification is still in the first reading in parliament. Turkey has not signed the convention.

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 dot, we could identify a certain provision in the criminal code or some other national law, which matches a provision in the Convention on Cybercrime, although it might not exactly cover the same crimes. Where the table shows a horizontal bar, we could not identify such a provision.

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

Table 10 - Computer related criminal offences

In November 2008 the Albanian Parliament adopted several amendments to the Criminal Code in order to transpose the Convention on Cybercrime.

In addition to the computer related crimes listed in the table, in 2007 a Turkish law[89] introduced provisions on liability of content providers, host providers and access providers. Based on this law a court or the NRA can oblige providers to block access when the content of Internet broadcasts constitutes one of nine catalogue criminal offences.[90] The frequency of such blocking orders and the practice to block access to popular video web sites that hosted even a single infringing video clip has given rise to some international criticism.[91]

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

[89] Law no. 5651 on regulating broadcast in Internet and combating crimes committed through such broadcast

[90] The catalogue includes provocation to commit suicide, sexual harassment of children, to incite the usage of drugs, the supply of drugs which are dangerous to the health, obscenity, prostitution, the provision of places and opportunities for gambling and crimes defined in the Law on crimes against Atatürk.

[91] See 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

- Turkey, where the Ministry of Justice has been charged with drafting a special law on the fight against cybercrime and where the Information Society Action Plan foresees actions on Internet security, in particular training and awareness raising;
- Albania, where the government's January 2008 sector strategy of public order foresees the establishment of a special organisational unit to deal with cybercrime and the improvement of cybercrime legislation; and
- Serbia, which has a special law on the organisation and competences of public authorities for fighting high technology crime.

3. Bodies in charge for security policy

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

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

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

- The Croatian Academic and Research Network (CARNET) operates a Computer Emergency Response Team (CERT) to prevent computer threats of public information systems. It provides the website www.cert.hr with up to date advisories on current threats and incidents in the Croatian language. Croatia also has a governmental CERT (ZSIS) and a National CERT overseeing both other CERTs.
- 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.

The table below shows the number of bodies and their responsibilities.

	HR	MK	TR	AL	BA	ME	RS	XK
Number of bodies responsible for network and information security	4	1	3	–	–	1	–	3
Country has a body responsible for network and security policy in general (that is, a body not only responsible for governmental networks)	●	●	●			●		●
Country has a computer emergency response team (CERT)	●		●					
Country provides an alert website or information security portal	●		●					

Table 11 - Bodies responsible for security policy

N. 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.

Croatia, FYROM, Bosnia & Herzegovina, Montenegro and Kosovo have already transposed these requirements into their national legislation. On May 11, 2009 the Albanian Parliament adopted a Law on electronic commerce, which will come into force 15 days after publication. Turkey and Serbia are preparing legislation to transpose the Electronic Commerce Directive. A Turkish law[92] already contains 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 on cybercrime above).

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 12 - 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 surety ship 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.

[92] Law no. 5651 on regulating broadcast in Internet and combating crimes committed through such broadcast

- 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 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.
- In Montenegro providers of non-qualified certificates do not need prior authorisation, but providers of qualified certificates must apply for registration in the register of accredited certification-service providers. Although the law foresees that the supervisory authority must issue its decision within 15 days after the date on which a complete request is submitted, in practice the provider must wait for the end of the registration procedure if the authority needs more than these 15 days.
- Serbia requires prior authorisation of providers of qualified electronic signatures.
- 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), Montenegro (Ministry for Information Society), Serbia (Ministry of Telecommunication and Information Society) and Turkey (Information and Communication Technologies Authority). In Albania a supervisory body has recently been established, subordinate to the Ministry of the Interior. The authority's chairman has been nominated, its structure approved and its staff partly hired. 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 111,000 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 and has issued about 20,000 qualified certificates.
- The Serbian Post has started issuing qualified certificates on December 15, 2008. Serbia also reported significant usage of non-qualified certificates. Many banks offer e-banking based on non-qualified certificates. About 350,000 non-qualified certificates have been issued, which means that about 5% of the Serbian population use certificates.
- In the other four countries, no provider issues qualified certificates. In Montenegro, one provider issues non-qualified certificates for e-banking.

Table 13 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	●	X	○	●	○	X	X	●
Supervision system established	●	●	●	●	–	●	●	–
Voluntary accreditation scheme established	●	–	–	–	–	–	–	–
Number of certification-service providers issuing qualified certificates	1	2	4	–	–	–	1	–
○● (partly) transposed/established, – not established, X = national law in contradiction with the Directive								

Table 13 - Electronic signature regulation and market data

O. Data protection and data retention

1. Protection of confidentiality of communications

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

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

Bosnia & Herzegovina is the only monitored country which does not have a provision against illegal interception. In FYROM there are provisions in the 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 14 - Protection of confidentiality of communications

2. Traffic and location data

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

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

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

The following table provides an overview of the provisions made for traffic and location data.

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

Table 15 - Traffic and location data

3. Data retention

According to the 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 15 above). However, article 15(1) of the 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. On February 10, 2009 the European Court of Justice dismissed an action for annulment of the directive brought by Ireland.[93] However, the court only confirmed the legal basis of the directive. Further lawsuits are still pending at national courts.

The new laws in Croatia and Montenegro introduced data retention obligations both for telephony data and Internet data. The provisions in the Croatian law will come into force on July 1, 2009. Bosnia & Herzegovina already has a data retention obligation for telephony and Internet data. Albania has a data retention obligation for telephony data. Turkey, Kosovo and Serbia do not have data retention legislation. FYROM plans to define the types of data to be retained and the retention period in 2009 and Turkey has already drafted amendments to a bylaw. Serbia will regulate data retention in its future Law on electronic communications, but has already obliged operators by secondary legislation to install the necessary equipment.

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

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

The table below shows which countries have defined data retention obligations (in particular the data to be retained and the retention period) for telephony data and/or for Internet data.

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

Table 16 - Data retention obligations

4. Spam

Article 13 of the Privacy Directive requires unsolicited commercial communications by e-mail to be subject to the individual's prior consent (opt-in), except for the sending of direct marketing emails to existing customers. For companies, 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 or 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 Privacy Directive later required Member States to prohibit spam addressed to individuals.

5. Itemised billing

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

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

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

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

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

The provisions in the Privacy Directive, which address the conflict of interest between subscribers (who have to pay and want to check the bill) and other users or called users (which might not want the subscriber to know their details), are vague and this is also reflected in the legislations of the monitored countries. No country obliges operators to anonymise the last digits in the numbers. Croatia, FYROM, Albania and Montenegro 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 Turkey, Bosnia & Herzegovina, Serbia and Kosovo the law does not foresee methods for the protection of privacy in the context of itemised billing.

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	●	●	–	●	–	●	–	–
● = transposed, ○ = partly transposed, – = not transposed								

Table 17 - Traffic and location data

P. Subscriber directories

1. Subscriber inclusion in directories

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

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

In most countries the respective legislation 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.

2. Availability of directories and directory enquiry services in practice

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

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

Such a comprehensive directory can be established in two ways:

- According to article 5 of the Universal Service Directive, at least one comprehensive directory (printed or in electronic form) and at least one comprehensive telephone directory enquiry service shall be available to end-users. NRAs may therefore select the provider of a comprehensive directory by means of designating a universal service provider after a public tender. 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 except Serbia telephony operators are obliged to grant access to their subscriber database. In Croatia, Turkey, Bosnia & Herzegovina 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.

The collected data shows, that with the exception of Croatia none of the monitored countries has enforced these processes. In Croatia, the incumbent is designated universal service provider and obliged to provide a comprehensive directory. This directory includes subscribers of all fixed operators and of the incumbent's own mobile branch. Negotiations with the other two mobile operators are ongoing.

FYROM has initiated a procedure to designate a universal service provider for a comprehensive telephone directory and directory enquiry services. However, this procedure is currently pending because FYROM intends to amend the provisions on directories in the legislation.

No monitored country has alternative providers of comprehensive directory services, although the laws of at least four countries would grant such undertakings the right to access operators' subscriber databases.

Q. Internet backbone infrastructure

Six countries could provide data on their international Internet bandwidth. The three countries who also provided data for the last report reported a remarkable increase. In Turkey and Montenegro the international Internet bandwidth doubled and in Kosovo it increased from 3 to 4 Gbps. However, it is unclear to what extent this is a real increase and to what extent the authorities only cover more of the already existing cross-border Internet backbone links in their statistics.

The following figure shows the International Internet bandwidth (most countries: end of 2008, FYROM: February 2009, Montenegro: 2007).

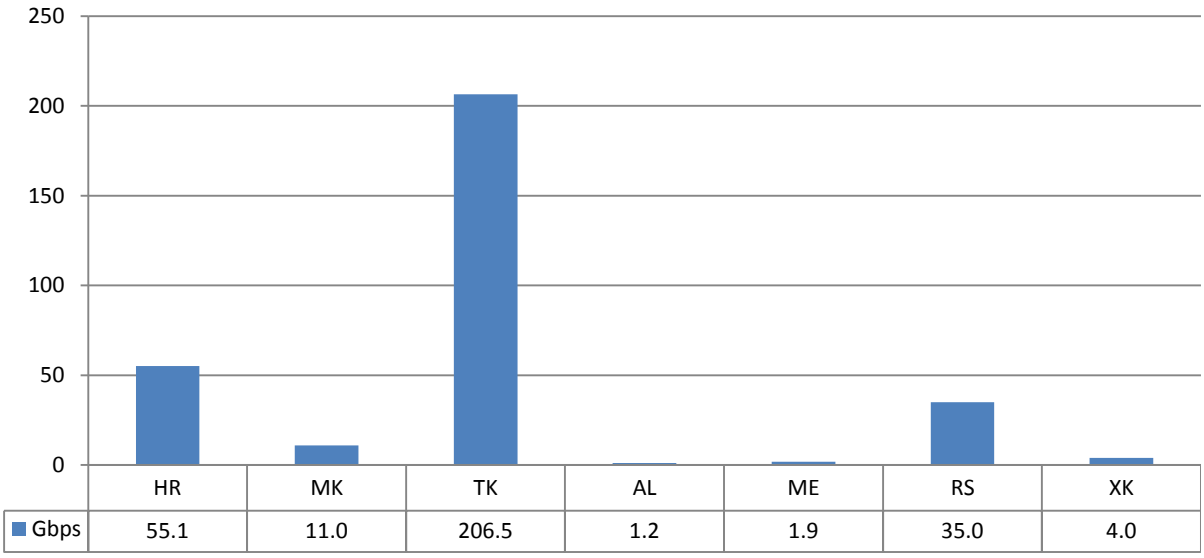


Figure 56 - International Internet bandwidth

An Internet exchange point (IXP) is a node where different Internet service providers (ISPs) exchange Internet traffic. An IXP typically consists of several network switches to which all participating ISPs connect. Often, the provider of the IXP is not an ISP itself, but a commercial data centre or a non-profit organisation like a university data centre. Many European IXPs are organised in the European Internet Exchange Association (Euro-IX).[94]

In 2007, a Euro-IX report listed 103 IXPs in 31 European countries. Only one of these was located in the countries covered by our analysis.[95] The University Computing Centre of the University of Zagreb operates the Croatian Internet eXchange (CIX) in Zagreb. Compared with other European IXPs, CIX is

[94] http://www.euro-ix.net/

[95] Euro-IX, Serge Radovcic: 2007 Report on European IXPs, October 2007, available for download at http://www.euro-ix.net/resources/2007/euro-ix_report_2007.pdf

relatively small. As of April 8, 2009, CIX connected 14 Croatian ISPs (three more prepared to become connected) and had an average traffic volume of about 0.2 Gbps.

NB. For comparison, as of August 2007, about one third of European IXPs had a traffic volume <1 Gbps, one third had a traffic volume from 1 to 5 Gbps, and one third had a traffic volume >5 Gbps.[96]

The Macedonian Academic Research Network (MARNet) intends to become a Macedonian IXP in the near future. Several local ISPs are already connected.

R. Management of Internet domains

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

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

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

1. National domain name registry and policy

In five of the monitored countries, an academic institution has the task of the national registry, in particular a university data centre (Bosnia & Herzegovina, Croatia, FYROM and Turkey) or an association of university institutions and ISPs (Serbia). In these countries there 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 is usually decided by the registry itself, for example in the form of the registry's statute or general business conditions. Croatia and Turkey introduced in their new laws the possibility to regulate domain names by secondary legislation, but have not yet adopted such bylaws.

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 is the only country in the region that has taken a fully market based approach in its domain name policy. It has separated the policy function and the registry function:

- On the basis of the Law on the property of the Republic of Montenegro, the government adopted a decision establishing the Council for the ".me" domain. This council decides on the domain name policy.
- The Council announced a public invitation for selecting the agent for the registry function. In this international tender, a joint venture of GoDaddy (one of the largest players in the domain name business) and a Montenegrin company won the tender.

2. Registrars of domain names

By separating the function of the national registry and the registrars, a state can introduce competition on the domain name market. This not only reduces the price of registering domain names, it also makes

[96] See p. 25 of the above mentioned 2007 Report on European IXPs.

access to domain names easier. Normally, domain name owners do not operate their own name servers and have to use the services of an ISP for this purpose. If this ISP also may act as registrar and has direct electronic access to the national domain name registry, the process of registering the domain name is significantly simplified.

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

	Competition model	"Registry is only registrar" model
Competition between registrars exists	Yes	No
Countries	BA, ME, RS, TR	AL, HR, MK
Who accredits registrars	The registry	–
Electronic interface exists	Yes	No
Number of registrars	ME: 103, RS: 36, BA: 19, TR: 13	1 (the registry)
Price per domain and year	BA: €22, ME: €10, RS: €3 to €17, TR: €2 to €10 Does not include registrar functions	AL: €25, HR: first domain free, other domains €24, MK: €9 Includes registrar functions

Table 18 - Registrars of domain names

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.

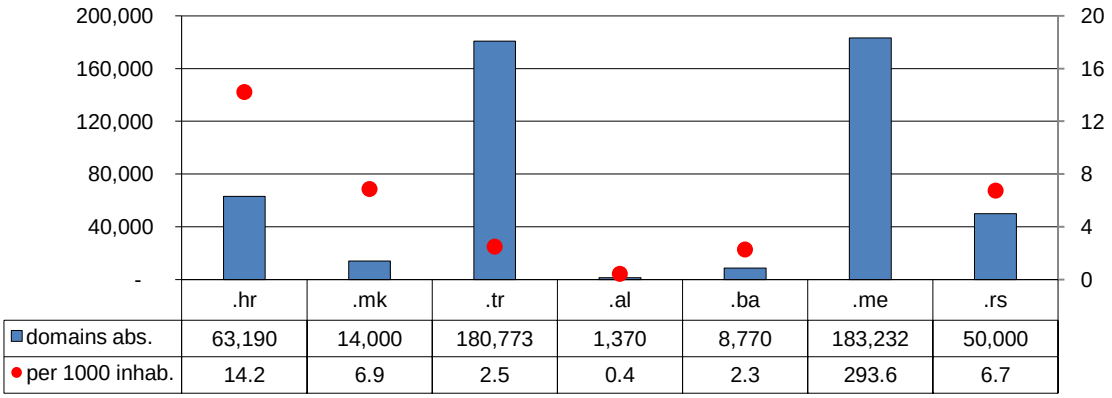
3. Cyber squatting and dispute resolution

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

Also, all seven countries introduced an out-of-court dispute resolution mechanism in the form of arbitration before a dispute goes to court. Two countries (Bosnia & Herzegovina and Montenegro) used ICANN's Uniform Domain Dispute Resolution Policy as the basis of their dispute resolution mechanism.[97]

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 end of 2008 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).



	.hr	.mk	.tr	.al	.ba	.me	.rs
domains abs.	63,190	14,000	180,773	1,370	8,770	183,232	50,000
per 1000 inhab.	14.2	6.9	2.5	0.4	2.3	293.6	6.7

Figure 57 - Domain names, absolute and per 1000 inhabitants

[97] http://www.icann.org/udrp/udrp.htm

There are several remarkable developments:

- The .me top level domain is highly attractive for foreigners. Two days after open registration had started on July 17, 2008, more than 50,000 new domain names were registered. Montenegro reported 183,232 domain names by end of 2008, more than in Turkey. However, almost all of this interest in Montenegrin domain names comes from other countries. There are about 300 .me domain names per 1000 inhabitants, two orders of magnitude more than in other countries (and therefore not visible in the figure above).
- The .rs top level domain has also developed remarkably. 50,000 domains were registered in less than one year. This figure can be compared with the absolute number of .hr domains or with the domain names per population in FYROM.
- 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. Turkey only has a large number of .tr domains due to the size of country.

The fast growth of .me and .rs domains has certainly been supported by the fact that the registries in Montenegro and Serbia use a competitive model with many registrars. doMEn cooperates with 103 registrars and RNIDS with 36. However, the registries in Croatia and FYROM, which hold a monopoly on registrar activities, have also managed to attract a large number of users.

VII. COUNTRY PROFILES

A. Croatia

1. Legal and institutional framework

a) Electronic Communications Act

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

b) Ministry of the Sea, Transport and Infrastructure

The Ministry of the Sea, Transport and Infrastructure (MMPI) is the government department responsible for electronic communications.[98] 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).[99] 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 the three principal sources: addressing and numbering fees, radio spectrum usage fees and administrative fees determined as a percentage of the annual revenues of authorised undertakings. Any surplus at the end of the year is carried forward into the budget for the following year.

d) Information society

The Central State Administration Office for e-Croatia is a governmental office headed by a State Secretary. It is responsible for information society policy (in particular the e-Croatia Programme) and Croatia's e-government activities, based on the e-government strategy for the period of 2009 to 2012.

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

98 http://www.mmpi.hr/default.aspx?id=777
99 http://www.telekom.hr/Default.aspx

service providers), the Ministry of Sea, Transport and Infrastructure (broadband), the Ministry of Health and Social Care (e-health), 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, Hrvatske Telekomunikacije (T-HT), has been significantly reduced as the result of several stages of privatisation. These began in 1999 with adoption of the Act on Privatisation of Hrvatske Telekomunikacije. In October 1999 the government sold 35% of the shares to a strategic investor - Deutsche Telekom. Following the purchase of a further 16% of the shares in October 2001, Deutsche Telekom gained control 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 sale of shares during 2008, the state's shareholding in the incumbent operator was reduced to 3.6%.

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 of 2008 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's 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 regime combining individual licences and general authorisation. Depending on the service characteristics and the use of limited resources, three categories of authorisations were issued by the regulator:

- concessions – for the provision public telecommunications services with the use of spectrum;
- individual licences – for the provision of public telecommunications services in fixed networks, leased lines, cable TV services and PMR services.
- general authorisation with notification to the NRA – for the provision of all other services including Internet access, VoIP, Value Added Services and Premium Rate Services (PRS).

The Electronic Communications Act of 2008 introduced a regime in which electronic communications networks and services can be provided without individual licences, subject to a general authorisation with a notification submitted to the Agency at least 15 days before starting activities. 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.

At present, there are three mobile operators in Croatia that own their network infrastructure: T-Mobile (T-HT's mobile subsidiary), VIPnet (owned by mobilkom 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. All three operators were issued spectrum licences in the 2100 MHz and have launched commercial 3G services.

5. Significant market power

Under the Telecommunications Act of 2003, the NRA analysed four national markets set out in line with the principles of the EU 1998 framework. The designation of operators with SMP was based on the application of the static threshold criteria of 25% market share (measured by revenue) in a relevant market combined with an assessment of other criteria specified in Article 51 of the Telecommunications Act of 2003. The regulatory obligations applicable to all operators with SMP were also pre-defined by that Act.

Accordingly, the NRA decisions of September 14, 2006 and March 30, 2007 designated the following operators as having SMP:

- T-HT (T-Com) and its 100% subsidiary, Iskon, as having joint SMP in public fixed telephone network and services (including voice services and services for transmission of voice, sound, data, documents, pictures, etc.);
- T-HT (T-Com) as having SMP in leased lines;
- T-Mobile and VIPnet as having SMP in public voice services on mobile networks;
- T-Com, T-Mobile and VIPnet as having SMP in interconnection.

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

Between March 2 and April 20, 2009 the NRA consulted on its analysis of nine relevant markets. 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 consultation documents include analysis, SMP assessment and imposition or removal of regulatory obligations covering the following markets and SMP designations:

- wholesale call termination in public fixed networks – HT-Hrvatske Telekomunikacije (T-Com), Iskon Internet and seven alternative opertors;
- wholesale broadband access – HT-Hrvatske Telekomunikacije (T-Com);
- wholesale call termination on individual mobile networks – T-Mobile Hrvatska, VIPnet, Tele2;
- wholesale SMS termination on individual mobile networks – none (three criteria test not met);
- wholesale infrastructure access at a fixed location - HT-Hrvatske Telekomunikacije (T-Com);
- wholesale call origination from public fixed networks - HT-Hrvatske Telekomunikacije (T-Com);
- public voice services in mobile networks – none (three criteria test not met);
- wholesale transit services in public fixed network – none (the three criteria test not met);
- wholesale access and call origination from public mobile networks – none (three criteria test not met).

According to HAKOM decision of July 9, 2008 on the markets relevant for ex ante regulation, two further markets will be analysed at a later stage covering access to public fixed telephony services at fixed location for residential and business customers as well as retail and wholesale leased lines.

6. Competitive safeguards

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

- CS/CPS in fixed networks has been available since February 2005 for all types of calls: local, national, international and to mobile numbers;
- number portability has been 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 has been available since October 2005 and regulated wholesale bitstream access reference offer since December 2007.

Interconnection and LLU charges are approved by the NRA on the basis of benchmarking against the EU-27 average levels.

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

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

8. European Union

In November 2008, the European Commission noted that significant progress had been made, in particular with the adoption of the new Electronic Communications Act, seen as a significant step towards completing alignment with the *acquis communautaire*.[100] However, progress required to be sustained in order to ensure the proper functioning of the electronic communications market.

The Commission noted the growth of broadband, including the increase in the number of unbundled loops, and also of the numbers ported on both fixed and mobile networks. Mobile operators still faced problems in obtaining construction permits and in site sharing, seen as potential roadblocks for future growth.

The regulator had enhanced its capacity, but lacked “sufficient transparency” in enforcing regulations to secure competitive safeguards for alternative operators.

On December 19, 2008 the accession negotiations with Croatia under chapter 10 of the *acquis* on Information Society and Media were provisionally closed.

9. Outlook

Following the adoption of the Electronic Communications Act of 2008, based on the principles of the EU 2003 regulatory framework, most of the required implementing legislation has been either adopted or is in the process of public consultation. The main priorities of the regulator remain carrying out the market analyses under the new framework and developing methodologies for regulatory cost accounting to ensure effective wholesale price control mechanisms for fixed and mobile networks.

[100] Croatia 2008 Progress Report. SEC(2008) 2694.

B. The Former Yugoslav Republic of Macedonia (FYROM)

1. Legal and institutional framework

a) Electronic Communications Law

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

b) Ministry of Transport and Communications

The Ministry of Transport and Communications is responsible for policies and for drafting legislation for the electronic communications sector, as well as for preparing the national strategy for the development of electronic communications and information technology.[101]

c) Agency for Electronic Communications

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

AEC is governed by a Commission consisting of five members, including the President, who acts as a chairperson of meetings of the Commission. The President and the other members of the Commission are appointed and dismissed by the 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, established in 2006, is the government institution responsible for information society policy and coordination of the activities defined in the National Strategy for Information Society Development adopted in April 2005.

The Statistical Office is responsible for information society statistics. The Ministry of Finance is supervisory authority for electronic signature. The Ministry of Internal Affairs is responsible for network and information security. The Macedonian Academic Research Network operates as the national domain name registry.

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

[101] http://www.mtc.gov.mk/

2. Regulatory independence

a) Privatisation and operational independence

The privatisation process of the incumbent operator, Makedonski Telekom, was launched in January 2000, when the Government agreed to sell 51% of the shares to Magyar Telekom, a major Hungarian telecommunication operator and part of the Deutsche Telekom Group. In 2006, further shares in Makedonski Telekom were sold to institutional investors. Currently, the Government controls a 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 Law on Electronic Communications, 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 Law on Electronic Communications 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 the Parliament enacted amendments[102] 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/or services pay an annual administrative fee to AEC. The maximum amount of the fee may not exceed 0.5% of the gross annual revenues derived from the provision of public communications networks and/or services during the previous calendar year.

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 seven major alternative network operators currently active in the market. The main competitors are On.Net and Cosmofon, the mobile operator that recently became active also in the fixed telephony market; both are controlled by Telekom Slovenije.

There are three mobile operators in FYROM with their own networks: T-Mobile (Makedonski Telekom's mobile subsidiary), Cosmofon and VIP (owned by mobilkom Austria). T-Mobile and Cosmofon have been active in the market since 2001, while VIP launched its operations in 2007. T-Mobile and Cosmofon have been assigned 2G spectrum in the 900 MHz band, while VIP operates in both the 900 MHz and 1800 MHz. In 2008, 3G spectrum in the 2100 MHz was acquired in separate auction procedures by Cosmofon and by T-Mobile.

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

In January 2009, AEC launched auction procedures for one national broadband access licence in the 1800 MHz band and two national 3G licences in the 2100 MHz band. No final decisions have been adopted yet.

On October 16, 2008 the Macedonian Commission for Protection of Competition approved the acquisition of the controlling stake in OTE by Deutsche Telekom subject to the condition that OTE would have to sell its Macedonian subsidiary, Cosmofon. The condition was imposed to prevent the distortion of the effective competition, because after the transaction Deutsche Telekom group would control the two largest mobile operators in Macedonia, T-Mobile and Cosmofon. On March 30, 2009 OTE agreed to sell Cosmofon to Telekom Slovenije for €190 million. The sale was approved by the Macedonian Commission for Protection of Competition in April 2009. The transaction consolidates the market position of the Slovenian incumbent who already controls the largest alternative fixed operator On.Net.

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 Competition (as amended)[103] and the EU 2003 regulatory framework.

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

The Law requires AEC to carry out market analyses at least once every year, which has not been achieved in practice. So far, AEC has only completed its analysis of the wholesale call termination market for individual mobile networks, designating T-Mobile and Cosmofon as having SMP and imposing regulatory obligations in January 2008.

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

6. Competitive safeguards

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

- CS/CPS in fixed network has been available since January 2007 for national, international and calls to mobile numbers. In May 2008 AEC amended the RIO of Makedonski Telekom to enable CS/CPS for local calls.
- RIO of the fixed incumbent operator has been available since February 2006. First RIOs of the two mobile operators with SMP were submitted for approval to the AEC in April 2008. Following adoption of the new bylaw on interconnection in December 2008, RIOs were revised in February 2009.
- RUO has been available since May 2006 but so far there has been only one agreement on LLU between Makedonski Telekom and On.Net. Following adoption of the new bylaw on LLU in September 2008, revised RUO was approved by AEC in December 2008. One of the major changes is the possibility for alternative operators to offer 'naked DSL', i.e. broadband access without PSTN services offered over the same line.
- Wholesale line rental (WLR) was offered commercially since November 2008. The first regulated WLR offer was approved by AEC on March 16, 2009 in accordance with the new bylaw on WLR adopted in December 2008. WLR prices are regulated according to 'retail-minus' methodology with the discount set in the range of 20-35%. The prices in the WLR offer approved by AEC in March 2009 are set at 'retail minus 20%'.

[103] http://www.kzk.gov.mk/eng/law.asp

- 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 were presented for AEC approval in February 2009, following adoption of the new bylaw on wholesale bitstream access and resale in December 2008.
- Cost-oriented fixed interconnection and LLU charges based on forward-looking top-down LRIC methodology were approved in May 2008.
- Following adoption of a new bylaw on accounting separation in September 2008, Makedonski Telekom, T-Mobile and Cosmofon are required to submit to AEC their audited separate accounts prepared according to LRIC methodology by May 31, 2009.
- Number portability in fixed and mobile networks has been available since September 1, 2008. Recently the bylaw on number portability was amended to shorten the porting time from seven to two working days.

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 bit/s;
- access to the single telephone directory and directory enquiry services;
- provision of public payphones;
- equivalent access to, and use of, publicly available telephone services for disabled end-users, including access to emergency calls services and information in single directory.

No universal service provider has been designated, although some of the elements have been provided by the incumbent operator within the scope of its concession agreement. AEC can designate one or more universal service providers based on a public tender. In January 2008, AEC launched a pre-qualification procedure for universal service providers. Two companies successfully passed the first phase but final selection phase has not been launched yet.

8. European Union

The European Commission noted significant progress, including enforcement measures that had created more competitive conditions for the benefit of consumers.[104] It found that the recent amendments to the Law of Electronic Communications have completed the alignment with the *acquis communautaire* with respect to appeal procedures and the authorisation regime, following the termination of the concession contracts.

Growing competition, with significant reductions in prices in the fixed and broadband markets, had been achieved by means of drastic reductions in interconnection rates, the introduction of number portability and the enforcement of obligations on SMP operators (e.g., interconnection offers, retail price control, cost accounting and accounting separation). While a third mobile operator had brought greater competition, the acquisition by Deutsche Telekom of OTE had increased its dominant position, requiring "corrective measures". The emergency number 112 had yet to be introduced.

9. Outlook

The uncertainty concerning the appointment of the AEC Director was finally resolved in January 2009, when the AEC Commission appointed the new executive following a public tender procedure. Institutional capacity of the NRA remains one of the main issues with the planned recruitment of new staff during 2009.

Among other priorities of the AEC are market analyses, effective implementation of regulatory obligations, in particular regulatory cost accounting and wholesale price controls, as well as the implementation of the universal service framework.

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[104] The Former Yugoslav Republic of Macedonia 2008 Progress Report. SEC(2008) 2695.

C. Turkey

1. Legal and institutional framework

a) Electronic Communications Law

The new Electronic Communications Law (Law No. 5809)[105] initially vetoed by the President in August 2008 was finally accepted by the Parliament, approved by the President and published in the Official Gazette on November 10, 2008. The law brings important changes to the Turkish legal and institutional framework for electronic communications and is intended to improve 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 enter into force on May 10, 2009.

b) Ministry of Transport

Ministry of Transport defines the state strategies and policies for the electronic communications sector aimed at promoting free competitive market, efficient use of scarce resources and development of electronic communications infrastructure and services in accordance with the objectives of public interest and national security.

According to the new 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 Communications 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

[105] http://www.tk.gov.tr/Duzenlemeler/Hukuki/Kanunlar/2008/elektronik_haberlesme_kanunu.htm

- 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 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 (which is in its current version valid for the period from 2006 to 2010) is one of the many planning tasks of the SPO. Such strategies are adopted by the High Planning Council composed of the Prime Minister, several other ministers and the Undersecretary of the SPO.

Other bodies with information society responsibilities are the Turkish Statistical Institute (information society statistics), TR-CERT (information security policy) and the National Research Institute of Electronics and Cryptology (UEKAE, 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 transposed the Electronic Signatures Directive. It has not ratified the Cybercrime Convention, but the crimes listed in this convention are considered as criminal offences in the Turkish Criminal Code.

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 traded 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, while the Ministry of Transport is responsible for operational activities, in particular of Türksat. Therefore, the separation of regulation from ownership and control functions has yet to be achieved.

b) Administrative independence

The new law provides for a more clear 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.

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 new Electronic Communications Law introduces a general authorisation regime with a notification to ICTA. This replaces the previous complex regime consisting of authorisation agreements, concession agreements and individual licences issued for every specific service category, with the only exception of Internet services and some categories of value-added services that already now could have been provided subject to a general authorisation regime.

Individual rights of use will be 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 will be regarded as having been notified to ICTA and assigned the rights of use when 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), annulment or cancellation for any other reason. 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, and the liberalisation of local services was formally introduced in July 2005. However, no licences have been issued so far to alternative operators for the provision of local telecommunications networks and services and Türk Telekom remains the only authorised provider.

In August 2007, the NRA had introduced an authorisation framework for fixed telecommunications services which covered the provision of voice telephony, data, payphones and value added services at the local level over the fixed network. This was seen as an important measure that would enable new entrants to enter the market for local voice telephony services. The regulator's decision was however overruled by the Council of State on the grounds that under this decision a single licence would enable the provision of more than one telecommunications service (i.e., voice and Internet).

On November 20, 2008 a new bylaw on telecommunications services and infrastructure setting out the authorisation regime for the provision of fixed telephony networks and services was published in the Official Gazette, after it had been revised in line with the objections raised by the Council of State. After the determination of minimal value of authorisation fees by the Council of Ministers, licences will be issued to alternative operators who would be able to offer local call services in competition with Türk Telekom. It seems that this new licensing regulation was not applied in practice before the general authorisation regime entered in force on May 10, 2009.

4. Market structure

The incumbent operator Türk Telekom remains 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. The provision of Internet services is dominated by the incumbent’s subsidiary TT Net providing over 90% of all fixed Internet connections. The competitors had been mainly using the wholesale broadband resale offer from Türk Telekom, and only recently most of them have migrated their customers to wholesale bitstream access offer with handover at IP-level following a campaign launched by the incumbent in late 2008.

There are three mobile operators in Turkey with their own network infrastructure: Avea (Türk Telekom’s mobile subsidiary), Turkcell (37% owned 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. On November 28, 2008 the regulator completed the auction procedure for four 3G UMTS licences in the 2100 MHz band, where 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. The three UMTS licences were officially awarded on April 30, 2009.

5. Significant market power

Although the previous legislation was largely based on the EU 1998 framework, the NRA decided in its 2005 work program to adopt the definitions of the 18 relevant markets according to the European Commission Recommendation of 2003 and conduct market analyses as foreseen under the EU 2003 framework. Market definitions and SMP designations were set out in the document published by the NRA in March 2005.

- In December 2005, the NRA completed its analysis of the wholesale markets for mobile access and call origination and for voice call termination on individual mobile networks, corresponding to markets 15/2003 and 16/2003, respectively. All three MNOs, Turkcell, Vodafone and Avea were designated as having SMP in the mobile call termination, with Turkcell also as having SMP in the mobile access and call origination.
- In March 2006, the NRA completed its analysis of the fixed markets, both wholesale and retail, corresponding to markets 2003/1-14, and designated Türk Telekom as having SMP in those markets.

The NRA, however, had little discretion in imposing regulatory obligations, with most remedies predefined by law and triggered automatically by SMP designation.

The new Electronic Communications Law foresees that market analysis procedures are to be carried out by ICTA in accordance with the EU 2003 regulatory framework. The law, however, contains no provisions on market analysis procedures, methods for identification of relevant markets, SMP designation and imposition of regulatory obligations. These aspects are to be addressed in the secondary legislation that is currently being drafted or revised by ICTA.

ICTA has decided to delay the new market analyses procedures until the secondary legislation required under the new law has been adopted. The regulatory obligations imposed on the operators with SMP will remain in force until new market analyses have been completed.

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; it is not yet available for local calls.
- RIOs have been published by Türk Telekom and by the mobile operators with SMP.
- RUO has been available since November 2006 and a regulated reference offer for wholesale bitstream access and resale since August 2007. Initially wholesale bitstream access was available only at IP-level, but in December 2008 ICTA approved the first reference offer for bitstream access at ATM level that will be valid from June 30, 2009.
- Number portability was implemented in November 2008 in mobile networks with over 1.2 million numbers ported within first four months from its introduction. Number portability in fixed network must be implemented by May 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

Alignment with the *acquis communautaire* remained "limited", requiring the adoption of further legislation.[106] The European Commission in particular commented on the long-drawn adoption process of the new Electronic Communications Law, which was initially vetoed by the President in August 2008, before its final adoption and entry into force in November 2008.

The Commission noted some progress concerning competitive safeguards imposed on dominant operators. However, despite strong growth in mobile and fixed, competition was described as "marginal", for example, with more than 95% of broadband Internet access being provided by the incumbent.

New regulations on access and interconnection for SMP operators had been adopted, including the provision of RIOs. While there was a RUO for the incumbent, there had been only "limited progress" towards equitable and transparent conditions for fixed wholesale broadband access. Implementation of number portability was also well under way. However, according to the Commission, "no progress" had been made on accounting separation and cost accounting of the fixed incumbent.

High taxation on communication services, unrelated to the administrative costs of regulating the sector, was seen as a "problem". The scope and implementation of universal service obligations were incompatible with the *acquis communautaire*. Liberalisation of local telephony had not been implemented, undermining competition in the fixed and broadband markets.

While the regulator was well staffed and self-financed, it lacked independence, in particular in the authorisation process. Its decision-making processes were not seen as transparent.

New regulations on the provision of Internet services at public places and on the principles and procedures concerning the regulation of broadcasts on the Internet had been adopted. Implementation of these had the "potential to violate freedom of expression".

9. Outlook

Following the adoption of the Electronic Communications Law, one of the key priorities of the NRA is adoption of the necessary secondary legislation, which would ensure a sound legal basis for application of the principles of the EU 2003 regulatory framework.

Other aspects include the authorisation regime, in particular the authorisation of alternative local telephone networks and services, the problem of high communications taxes imposed on operators which are detrimental to market entry, the implementation of universal service in compliance with the EU framework and the effective independence of the regulatory authority.

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[106] Turkey 2008 Progress Report. SEC(2008) 2699.

D. Albania

1. Legal and institutional framework

a) Law on Electronic Communications

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

b) Ministry of Public Works, Transport and Telecommunications

The Ministry of Public Works, Transport and Telecommunications is the central state administration body competent for electronic communications and postal services.[107] The Directorate of Post and Telecommunications carries out the day-to-day work.

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

In April 2009, the ministry presented to the Council of Ministers for approval the new National Radio Frequency Plan developed in accordance with the European Common Allocation table. The plan was approved by the Council of Ministers on May 6, 2009. With EBRD assistance the ministry has recently prepared a draft policy on electronic communications for the period from 2009 to 2014. After a public consultation the policy will be submitted to the Council of Ministers.

c) Authority of Electronic and Postal Communications

The Law on Electronic Communications established the Authority of Electronic and Postal Communications (AKEP) as the new regulatory authority that took over the tasks and responsibilities of the previous regulator, the Telecommunications Regulatory Entity (TRE).[108] 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 the Chairman, who also acts as the Executive Director of AKEP.

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

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.

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).

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[107] www.mpptt.gov.al/
[108] www.ert.gov.al

d) Information society

The National Agency on Information Society (NAIS)[109] was established by a decision of the Council of Ministers in April 2007 and became operational in September 2007. Its overall objective is to coordinate the government's activities in the field of information society and communication technologies. In particular, NAIS is responsible for 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.

The Institute of Statistics (INSTAT) is responsible for information society statistics, but such statistics are not yet available. A national authority on electronic signature has recently been established under the Ministry of the Interior. Albania has not designated a body responsible for network and information security in general. AKEP is also the national domain name registry.

Albania has transposed the Electronic Signatures Directive and the Cybercrime Convention. On May 11, 2009 the Parliament adopted a law transposing the Electronic Commerce Directive.

2. Regulatory independence

a) Privatisation and operational independence

On June 19, 2007, after a two-year period of negotiations over the privatisation of Albtelecom, the incumbent operator, Calik Enerji and the Albanian Ministry of Economy, Trade and Energy, signed an agreement for the sale of a 76% stake to a joint venture of Calik Enerji and Türk Telekom. The deal also included Eagle Mobile, the third mobile operator. The privatisation agreement was ratified by the Albanian Parliament on July 19, 2007. Currently, the state retains 24% of shares in Albtelecom and Eagle Mobile. 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 following the transaction will control, directly and indirectly, 95% of AMC.[110]

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 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 ministry approval.

The administrative independence of AKEP is undermined by legal provisions restricting its ability to decide independently on its organisation structure and the salary levels. As with the previous Law on Telecommunications, the new Law on Electronic Communications maintains the requirement for AKEP organisational structure and salary levels to be approved by the Assembly on the proposal of the Council of Ministers. So far, however, all proposals submitted by AKEP have been approved by the Council of Ministers. For example, in November 2008, the Council of Ministers approved AKEP's proposal regarding the salaries of its Council members.

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

The current Council, which is in office since March 2008, has been hampered by conflicts between Council members. Some of the decisions adopted by a majority of the Council members were obstructed by staff under the control of the Executive Director. In March 2009 these conflicts escalated and brought

109 http://www.akshi.gov.al

110 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

the decision-making process at the Council level to a complete standstill. As the law defines most regulatory topics as a competence of the Council, the ongoing problem hinders AKEP from fulfilling its regulatory tasks.

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. The relevant implementing legislation was approved by the regulator only in April 2007.

Before the entry into force of the new Law on Electronic Communications came into force in June 2008, no effective competition has emerged in the provision of international interconnection connectivity.

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 AKEP who must complete the registration within 15 days. AKEP adopted secondary legislation on the notification procedure in September 2008. Individual authorisations are issued by AKEP for the right to use radio spectrum and numbers.

In December 2008, at the end of a six months transition period, AKEP harmonised all existing licences with the authorisation framework of the new law. All operators that were previously issued regional licences may freely extend the provision of their services over the entire territory of the Republic of Albania both by extending the geographic coverage of their networks and by interconnecting with other networks.

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 96%, while in the provision of national services, where it faces some competition from the regional operators its market share is about 72%. 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.

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, while Eagle Mobile licensed in 2004 launched its commercial services in March 2008 following its privatisation in 2007.

In February 2009, AKEP held a tender procedure to award the forth 2G mobile spectrum licence in the 900 MHz and 1800 MHz bands. Two undertakings participated in the tender: a consortium led by Post and Telecom of Kosovo (PTK) with the bid of €7.2 million and Universal PG with the bid of €5 million. In April 23, 2009 the Albanian parliament through Law No. 10118 of April, 2009 awarded the licence to the PTK consortium. The spectrum licence is valid for 15 years.

No decision on the award of 3G licences in the UMTS band has been taken yet.

5. Significant market power

Under the Law on Telecommunications of 2000, the NRA had discretion to define relevant markets applying competition law principles. The designation of SMP was on the basis of the static 25% market share threshold, sometimes combined with assessment of other criteria. Basic remedies applicable to all operators with SMP were specified by the Law on Telecommunications, while some further discretionary remedies were specified in the TRE Regulation on Access and Interconnection of December 7, 2007.

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

On November 13, 2007 the regulator designated Albtelecom as having SMP in six markets, covering retail access and publicly available phone calls at a fixed location, wholesale call termination on geographic

numbers on the Albtelecom fixed network, wholesale call origination on the public fixed telephone network, national transit services in the public fixed telephone network and international transit services in the public telephone network. The scope of regulatory obligations includes: CS/CPS, access and interconnection, non-discrimination, transparency (including the requirement to publish a RIO), price control, accounting separation and cost accounting.

The new law provides for market analyses, the definition of relevant markets, SMP designations and the imposition of remedies on SMP operators based on the principles of the Law No. 9121 on the Protection of Competition and the EU 2003 regulatory framework.[111] It also requires AKEP to carry out market analyses at least once every two years. Until the NRA has completed its first round of market analyses under the new framework, the previous SMP designations and regulatory obligations remain in force. AKEP plans to undertake its market analyses in 2009 after adopting the new regulation on market analysis and SMP designation.

6. Competitive safeguards

Implementation of the key competitive safeguards has started in Albania only recently.

- The first RIOs of Albtelecom, AMC and Vodafone were submitted to the NRA for approval in March 2008. Following several revisions, RIOs were finally approved and published on February 18, 2009.
- The price control regulations of retail and wholesale tariffs of the three operators with SMP, Albtelecom, AMC and Vodafone, were approved by the Council of Ministers on June 18, 2008 (as part of its competencies under the previous law). The new tariffs were approved by AKEP on August 28, 2008. Retail price controls for both fixed and mobile services are price cap methodologies that apply from September 1, 2008 until August 31, 2010.
- The main objective of the tariff regulation for Albtelecom retail services is tariff rebalancing of fixed tariffs. As a result of the regulation implemented on September 15, 2008, tariffs for residential customers changed as follows:
  - 20% increase in the monthly rental fee;
  - 12% increase in local calls tariffs;
  - 17-57% reduction in national calls (to fixed networks) tariffs;
  - 13-24% reduction in tariffs for calls to mobiles;
  - Up to 63% reduction for international calls.

  For business customers, monthly rental and retail calls tariffs were increased, while the tariffs for national and international calls were reduced by up to 63%.
- The NRA adopted a Regulation on Access and Interconnection in December 2007 that includes the rules for publication and content of RUO, but there is no obligation yet for Albtelecom to provide LLU or to publish its RUO.
- CS/CPS was imposed as an SMP obligation on Albtelecom but no decision on its implementation has been taken.
- No decision on implementation of number portability has been adopted so far. The new law provides that it should be implemented within 12 months, i.e. by June 2009.

7. Universal service and consumer issues

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

[111] http://go.worldbank.org/BKB2R8ZAT0

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

No decision on the designation of the universal service providers has been taken so far.

8. European Union

The European Commission noted only "some" progress, including new primary legislation in line with the *acquis communautaire*.[112] However, an electronic communications strategy, related policy documents and secondary legislation had yet to be adopted. Market liberalisation and competition were "still at an early stage".

There was a lack of competitive safeguards such as tariff rebalancing, RIO, CS/CPS and RUO. The legislation allowing operators to apply for urban and regional licences in addition to the rural and national licences had not increased competition.

There was "insufficient administrative capacity" in the ministry and in the regulator, while the latter also needed to develop the "necessary expertise" to implement and to enforce the new legislation.

9. Outlook

Among the outstanding issues is the full implementation of the Law on Electronic Communications and adoption of the required secondary legislation under the new law. Competitive safeguards, such as number portability, CS/CPS, local loop unbundling and cost accounting models for the introduction of cost-based tariffs remain to be introduced. AKEP needs to strengthen and deepen its expertise. Available spectrum needs to be assigned to operators and the legislation must be aligned closer with the EU framework.

[112] Albania 2008 Progress Report. SEC(2008) 2692.

E. Bosnia and Herzegovina

1. Legal and Institutional framework

a) Law on Communications

The Law on Communications of October 21, 2002 defines the institutional framework in respect of the policy making and the regulation of the electronic communications sector. Within the scope of the law are included telecommunications, radio 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 during 2008, 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 on December 18, 2008.[113]

c) Communications Regulatory Agency

The Law on Communications establishes the Communications Regulatory Agency (RAK) as a functionally independent and non-profit 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.

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[113] 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. According to strategic documents (Policy for Development of the Information Society, Strategy for Development of the Information Society and Action Plan for Development of the Information Society), an Agency for Development of the Information Society of Bosnia & Herzegovina (ARID) shall be established. A draft law has been prepared, but not adopted by parliament. If established, ARID would also become responsible for information society statistics.

Bosnia & Herzegovina has neither designated a body responsible for network and information security nor established a supervisory body for electronic signatures. The University Teleinformatic Centre is the national domain name registry.

Bosnia & Herzegovina has transposed the Electronic Commerce Directive and the Electronic Signatures Directive. It has also ratified the Cybercrime Convention, but still needs to amend its Criminal Code accordingly.

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

b) Administrative independence

The Law on Communications provides for substantial administrative and financial independence of RAK. In particular, it ensures that neither the Council of Ministers, nor any individual minister may in any way interfere in the decision-making of the Agency in individual cases.

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, may hinder 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 will only be 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 Director General, which complicates and slows down decision-making processes at RAK. 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. No new procedure has been initiated so far, and the Director General retains his position without the formal approval of the Council of Ministers.

3. Market access and authorisations

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

The one-off 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 500,000 (€255,600) for public fixed telephone services with own network infrastructure; BAM 70,000 (€35,800) for public fixed telephone services without own networks; BAM 5,000 (€2,500), BAM 10,000 (€5,000) and BAM 50,000 (€25,000) for operators of local, regional and national networks,

respectively. The annual fee paid by 2G mobile network operators is BAM 600,000 (€307,000), while ISPs pay BAM 4,000 (€2,100) a year.

On March 27, 2009 RAK published for consultation draft proposals to reduce annual fees from BAM 500,000 to BAM 450,000 for public fixed telephone services with own network infrastructure; from BAM 70,000 to BAM 55,000 for public fixed telephone services without own networks; and from BAM 600,000 to BAM 550,000 for 2G mobile network operators.

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.

The incumbents retain the dominant position in the provision of public fixed telephony services with combined market share close to 99%. Few new entrants have become operational since liberalisation of the sector: 10 alternative providers currently offer public fixed telephony services over the incumbents' network infrastructure based on CS or VoIP. No new licences for provision of fixed telephony services with own network have been granted.

There are three 2G mobile networks in Bosnia & Herzegovina that are also operated by the three incumbent operators. All of them are licensed to operate in both the 900 MHz and 1800 MHz bands. On March 26, 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.

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.

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

6. Competitive safeguards

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

- CS/CPS was introduced in July 2007 but remains at an early stage with only four alternative operators providing CS services.
- RIOs for the three fixed incumbent operators have been available since November 2005.
- RUOs are expected to be published before the end of 2009, RAK regulations on LLU adopted in 2008.
- Number portability in fixed and mobile networks is expected to be implemented before the end of 2009.
- The new Telecommunications 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 has been submitted by the NRA for approval by the Council of Ministers.

8. European Union

According to the European Commission, progress was held to be "limited" with few new entrants having become operational since liberalisation of the sector and no new licences for fixed telephony services having been granted.[114]

While rules on number portability and local loop unbundling had been adopted by the regulator, the timeframe for implementation was delayed pending adoption of the new sector policy by the Council of Ministers. Tariff rebalancing was still at an "early stage".

The regulator required human, financial and technical resources in order to support the development of the sector.

The new Law on Wages and Allowances challenged the independence of the regulator, as did the unresolved issue of the nomination of its Director-General and difficulties with decisions of the regulator having to be submitted to the Council of Ministers. The Commission called on all stakeholders to work constructively to solve the outstanding issues and to guarantee the independence of the regulator.

9. Outlook

Among the key priorities for the sector remain implementation of number portability and LLU, tariff rebalancing, adoption of the universal service framework, licensing of 3.5 GHz spectrum band for fixed wireless access.

A prerequisite for effective functioning of the national regulatory and policy-making authorities is the resolution of the uncertainty around the appointment of the Director General of RAK and strengthening of the institutional capacity of both the NRA and the Ministry of Transport and Communications.

[114] Bosnia and Herzegovina 2008 Progress Report. SEC(2008) 2693 final.

F. Montenegro

1. Legal and institutional framework

a) Law on Electronic Communications

The new Law on Electronic Communications that was adopted on July 29, 2008 (Official Gazette 50/2008) 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.[115] 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 and under the new Law on Electronic Communications adopted in 2008 the agency 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 has also taken 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 Agency 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 Executive Director of EKIP who became the former director of the NRA.

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 under the new law 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

[115] http://www.vlada.cg.yu/eng/minsaob/

for a fiscal year, the law no longer requires to transfer the surplus to the state budget but allows to move it in the next year's budget.

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 established in December 2008 took over the tasks of the former Secretariat for Development. The ministry's main areas of responsibility are e-government, information society strategy and IT infrastructure. Its competencies include information security policy, information society statistics and electronic signature. Surveys for information society statistics are conducted by different non-governmental institutions. In February 2009 the ministry published the Strategy for Information Society Development of Montenegro for the period 2009–2013.[116]

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 transposed the Electronic Commerce Directive and the Electronic Signatures Directive. It has not ratified the Cybercrime Convention, but most crimes listed in the convention are considered as criminal offences in the Criminal Code.

2. Regulatory independence

a) Privatisation and operational independence

Montenegro no longer has state ownership in any of the telecommunications operators. In March 2005, the Government of Montenegro sold its 76.53% shareholding in Crnogorski Telekom to Magyar Telecom, 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 new role of the ministry as an appellate body for EKIP decisions along with its powers under article 130 of the new law 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 introduces 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, according to the NRA financial plan for 2009, has been set at €1,000. Individual authorisations are issued by EKIP for the right to use radio spectrum and numbers.

[116] http://www.gov.me/files/1235731125.pdf

Under the transitional provisions of article 141 of the Law on Electronic Communications, EKIP was required within a nine months period to harmonise all individual licences issued under the previous law with the new authorisation framework and complete the registration procedure of the existing operators.

4. Market structure

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, owned by the Serbian incumbent Telekom Srbija entered the market in 2007. 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.

The fixed telephony market continues to be dominated by the incumbent operator Crnogorski Telekom. First licences for the provision of fixed voice telephony services by alternative operators were issued in late 2007 and early 2008. Following several successive public tender procedures, the NRA issued eight licences for the provision of VoIP services and four for FWA services in the 3.4-3.8 GHz band. The minimum one off-fee for FWA licence was set at €175,000 and the winning offers ranged from €1,050,000 to €175,000. The total proceeds of VoIP tender amounted to €60,000 with winning bids ranging from €10,500 to €15,000. So far, only one alternative provider, m:tel has started commercial provision of fixed voice telephony services on a large scale.

5. Significant market power

So far no comprehensive market analysis has been carried out by the NRA. Under the provisions of the Telecommunications Law of 2000, the fixed incumbent operator, Crnogorski Telekom, was deemed to have SMP in the markets for fixed networks and services and in Internet services, while T-Mobile and Promonte had SMP in mobile networks and services. None of the SMP obligations foreseen in the Telecommunications Law had been applied to mobile operators.

The new Law on Electronic Communications of July 29, 2008 contains new transitional provisions that designate Crnogorski Telekom as having SMP in the markets for fixed voice telephone networks and services including the markets for data transmission services and leased lines. Under the same provisions, all fixed and mobile network operators are deemed to have SMP in the markets for call termination in their respective networks, while the national broadcasting operator in the market for broadcasting transmission services. The law, however, does not define any specific regulatory obligations that apply to the operators as a result of these SMP designations.

The new law provides for market analyses, the definition of relevant markets, SMP designations and the imposition of remedies on SMP operators based on the principles of the EU 2003 regulatory framework. Under the transitional provisions of article 143 of the Law on Electronic Communications, the NRA must complete its first market analysis within one year from the entry into force of the law, i.e. by August 27, 2009. In February – March 2009, the NRA held its first consultation on the market analysis procedures and definition of the relevant markets.

6. Competitive safeguards

Only a few of the key competitive safeguards foreseen under the EU 1998 regulatory framework have been implemented in Montenegro.

- The first RIO of Crngorski Telekom was published in December 2004. In April 2008, the NRA approved a new RIO introducing some reductions to interconnection charges based on the EU benchmarks.
- No RIOs have been published by mobile operators with SMP, T-Mobile and Promonte.
- CS/CPS regulation was introduced in December 2007 and applies to both fixed and mobile networks. However, only Crngorski Telekom has introduced CS in its RIO so far.
- No clear deadlines are established for the implementation of number portability and local loop unbundling.

7. Universal service and consumer issues

No universal service provider has been designated so far.

The Law on Electronic Communications provides legal basis for the universal service and defines its scope as comprising: access to public fixed telephone services at affordable prices; equal access to publicly available telephone services at affordable prices for disabled users and users with special social needs; telephone directories and directory enquiry services; public pay phones; free access to emergency services.

Under the article 144 of the Law on Electronic Communications the NRA was required within 6 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. This was not achieved in practice, as the secondary legislation is still under preparation.

8. European Union

The European Commission noted "some progress", including new legislation aimed at alignment with the *acquis*, though it had been presented to parliament without prior public consultation.[117]

The procedures for appointing the board of the new regulatory authority, the division of responsibilities between the new regulatory authority and the ministry, as well the financing of the regulatory authority, gave "cause for serious concern about the NRA independence". The administrative capacity of the Department for Telecommunications Policy within the Ministry of Maritime Affairs, Transportation and Telecommunications was assessed as "weak". The majority of the new secondary legislation had yet to be drafted.

In the field of fixed networks and services, the regulatory authority issued licences for the provision of VoIP and for fixed wireless access (FWA), however most of the licences went to the three existing mobile operators and only one of them has so far launched commercial operations. So effectively, there had been no change in the level of competition.

9. Outlook

Adoption of the new secondary legislation required under the new Law on Electronic Communications remains slow. Only two of the required secondary acts so far have been adopted by the ministry on the proposal of the NRA: the rulebook on the annual fees for the use of frequencies and the rulebook on the annual fees for the use of numbering resources and addresses. The institutional and administrative capacity of the ministry and the NRA needs to be improved in order to enable them to manage this task.

Other issues that must be addressed are the implementation of competitive safeguards, market analysis procedures and methodologies for price control of wholesale tariffs.

[117] Montenegro 2008 Progress Report. SEC(2008) 2696.

G. Serbia

1. Legal and institutional framework

a) Telecommunications Law

The Telecommunications Law adopted in April 2003 defines the legal and institutional framework for the telecommunications sector, including the responsibilities of the government, the relevant ministry and the national regulatory authority.

In December 2008 the Ministry for Telecommunications and Information Society initiated the work on drafting the new Law on Electronic Communications that is intended to harmonise Serbian law with the EU 2003 regulatory framework for electronic communications. Public consultations on the draft law are expected to be completed in September 2009 and its adoption is scheduled towards the end of 2009.

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 telecommunications, the ministry is responsible for:

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

c) Republic Telecommunications Agency

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

RATEL is managed by the Managing Board that consists of a Chairman and four Members who are appointed and 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.

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

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

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

d) Information society

The Ministry for Telecommunications and Information Society is responsible for information society issues, in particular for developing the information society development strategy and for e-government. The ministry is also the supervisory authority for electronic signatures.

The National Information Technology and Internet Agency 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. 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. It has not ratified the Cybercrime Convention, but most crimes listed in this convention are considered as criminal offences in the Serbian Criminal Code. A draft law on electronic commerce has been submitted to the Parliament and the government plans to adopt a draft law on electronic documents in June 2009.

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.

b) Administrative independence

While the Telecommunications Law of 2003 provides for substantial administrative independence of RATEL in exercising its regulatory tasks and adopting implementing legislation within its competences, the provisions of the Law on State Administration require RATEL to obtain from the Ministry for Telecommunications and Information Society an opinion on compliance of the regulation with the Constitution, other relevant laws and regulations. The Law on State Administration also allows the Ministry as the supervisory authority to take over the performance of RATEL's activities for a maximum period of 120 days if RATEL fails to perform its functions properly or timely.

These provisions can potentially undermine the administrative independence of RATEL, as it was illustrated by a recent development. Following major disagreements and coordination problems preventing the proper functioning of regulatory and legislative mechanisms, in June 2008 the ministry decided to temporarily take over RATEL's responsibilities. The government subsequently repealed the ministry's decision, clarifying that the ministry had incorrectly interpreted its supervisory powers foreseen in the Law on State Administration.

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 the end of 2008 the only licensed public fixed voice telephony operator and the only operator authorised to interconnect with international telecommunications networks.[118] Among the main reasons for the delayed liberalisation of the sector was the lack of the necessary implementing legislation on licensing and interconnection aspects.

Under the Telecommunications Law, provision of any services that require use of limited resources such as frequencies and numbers from the national numbering plan would be subject to an individual licence issued by RATEL based on a public tender procedure. The minimum one-off licence fee, the number of licences to be issued and the timing of the tender procedure are decided by the ministry. Other type of

[118] Mobile network operators have been also authorised to interconnect with international networks.

services that do not require the use of limited resources can be provided subject to an authorisation issued by RATEL upon an application submitted by the operator.

Only in October 2008 a set of bylaws adopted by RATEL entered into force, following their publication in the Official Gazette, covering terms and conditions and issuance procedures of the authorisations for:

- the provision of international network interconnection;
- the operation of public telecommunications networks; and
- the provision of voice transmission services over the Internet (VoIP, without use of numbers from the national numbering plan).

On December 22, 2008 RATEL in accordance with the new regulations issued three authorisations for public fixed telecommunications networks operators, nine authorisations for VoIP providers and four authorisations for international interconnection.[119]

In March 2009, the ministry announced plans to launch a tender procedure for the second fixed telephony licence in June 2009.

4. Market structure

So far Telekom Srbija remains the only licensed provider of public voice telephony services over its own fixed network infrastructure. First authorisations for the provision of VoIP services were issued only in December 2008. To certain extent, there is some competition in provision of Internet services. Most of the ISPs, however, have been providing ADSL services based on the incumbent's wholesale offer and relying on its international connectivity.

The competition has only emerged in mobile services where two operators, Telenor (owned by the Norwegian mobile operator) and VIP mobile (owned by mobilkom Austria), licensed by RATEL in 2006, 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.

5. Significant market power

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

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

On April 22, 2008 RATEL adopted a decision identifying six markets relevant for ex ante regulation, comprising the four markets defined under the ONP framework and two additional markets: fixed telephony, mobile telephony, leased lines, interconnection, Internet services and provision of cable distribution systems.[120] The new market analysis is expected to be undertaken by RATEL in the third quarter of 2009.

6. Competitive safeguards

None of the key competitive safeguards foreseen under the EU 1998 regulatory framework have been implemented in Serbia. The first RIO was prepared by the fixed incumbent operator in August 2008 in

[119] http://www.ratel.rs/index.php?page=novosti&id=2320&target=news_malo&item=68&get_treerot=54&lang=eng
[120] http://www.ratel.rs/editor_files/File/Regulativa/Odluke/ODLUKA-analiza%20trzista.pdf

accordance with RATEL regulations on interconnection of public telecommunications networks adopted in May 2008.[121] In practice, RIO applies only to interconnection with mobile networks, as there are no alternative fixed network operators. In March 2009, Telekom Srbija published a separate RIO for interconnection with VoIP providers.

Only recently, the first steps towards tariff rebalancing as one of the prerequisites for the liberalisation of the fixed telephony services, have been undertaken. In October 2008 RATEL approved Telekom Srbija's proposal to increase from November 1, 2008 fixed line monthly rental fees for residential and business customers by 100% to RSD 195.00 (€2.20) without VAT and to apply uniform call charges for residential and business customers. At the same time, RATEL approved an increase of call impulse charges, starting from December 1, 2008.[122]

The National Strategy for Development of Telecommunications from 2006 to 2010 adopted by the government in October 2006 did not set out any specific deadlines for the liberalisation of the telecommunications sector and implementation of the necessary competitive safeguards. On January 15, 2009, the government adopted the Action Plan for implementation of the National Strategy for Development of Telecommunications.[123] The action plan foresees adoption of the necessary regulations on CS/CPS and number portability for fixed and mobile networks before the end of 2009, but does not set out any explicit deadline for their implementation. The Action Plan also foresees the implementation of cost accounting methodologies and calculation of cost-oriented tariffs for operators with SMP in the third quarter of 2009.

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. The initial scope of universal services was defined as comprising access to a public fixed telephone service enabling functional Internet access; special measures for disabled and socially disadvantaged users; free access to emergency services; public payphones and access to telephone directory and directory enquiry services.

Following the expiry of Telekom Srbija's universal service obligations, the ministry must define the scope of the universal service at the proposal of RATEL, while RATEL has to designate the universal provider and establish the universal service fund. None of this has been achieved yet.

8. European Union

The European Commission noted that "little progress" had been made, in particular due to insufficient coordination among responsible bodies.[124] The 2010 telecommunications strategy lacked timelines for the various objectives, including liberalisation measures. There had been "major disagreements" between the ministry and the regulator, "preventing the proper functioning of regulatory and legislative mechanisms". Relations had improved following the revocation by the government of the decision by the ministry to take over the responsibilities of RATEL on a temporary basis.

The Commission considered the legislative and regulatory framework for fixed telecommunications was "to a large extent inadequate for the entrance of new operators in the market". Although a set of decisions on VoIP, international connectivity, licensing and operators and tariff rebalancing had been adopted, further regulation was needed to specify competitive safeguards and ensure network access. International connectivity still posed a major problem for many operators. The regulation of Internet services remained inadequate and made the entry of new providers difficult. Internet penetration rates were rising, but remained low. Tariff rebalancing and the development of cost models were outstanding issues. A universal service policy had yet to be adopted.

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121 http://www.ratel.rs/editor_files/File/Regulativa/Pravilnici/Pravilnik_o_interkonekciji.pdf

122 http://www.ratel.rs/editor_files/File/Regulativa/Odluke/ODLUKA_o_davanju_saglasnosti_Preduzecu_za_telekomunikacije_%27%27Telekom%20Srbija%27%27_da_izvrsi_promenu_cena_u_fiksnoj_telefoniji.pdf

123 http://www.ratel.rs/editor_files/File/Regulations/Action%20plan%202006-2010_20090130.pdf

124 Serbia 2008 Progress Report. SEC(2008) 2698.

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. The Ministry has announced that it started drafting a new legislation based on the EU 2003 regulatory framework.

The key outstanding issues that must be addressed are: liberalisation of the fixed voice telephony networks and services, tariff rebalancing and implementation of the competitive safeguards. There is also a need to develop cost models in order to set cost-oriented interconnection tariffs.

H. 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.

As of April 2009, the independence of Kosovo had been recognised by 57 countries. The UN Security Council remains divided on the issue: of the five permanent members the USA, the UK, and France recognised the declaration of independence, while Russia and China have not. The European Union has no official position on the status of Kosovo, although a majority of its Member States have formally recognised Kosovo (22 out of 27).

b) United Nations Interim Administration Mission in Kosovo (UNMIK)

Under the constitutional framework established by the international administration, specific responsibilities were reserved for UNMIK, including two aspects relevant for telecommunications:

- administration of state-owned and socially-owned companies by the Kosovo Trust Agency (KTA), including the incumbent fixed and mobile operator, Post and Telecom of Kosovo (PTK); and
- management of spectrum by the Frequency Management Office (FMO) with assignment performed by the national regulator, TRA.

The declaration of independence facilitated the anticipated transfer of these responsibilities from UNMIK 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.

c) 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.[125]

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.

d) Ministry of Transport and Communications

The Ministry of Transport and Communications (MTC)[126] 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.

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[125] http://www.unmikonline.org/regulations/2003/RE2003_16%20.pdf

[126] http://www.mtpt.org/

e) 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 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.

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. TRA budget is approved by the Assembly and any surplus funds collected by TRA are transferred at the end of the year to the Kosovo consolidated budget.

Official acts and decisions of TRA can be appealed before the Administrative Court.

f) 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 Services.

The Statistical Office is responsible for information society statistics. Kosovo has not established a body responsible for electronic signature. According to the Telecommunications Sector Policy, TRA will become responsible for domain name policy and will select the agent for the registry when Kosovo will acquire its own ccTLD.

The Law on the Information Society Services transposes in several chapters most of the relevant EU legislation on electronic commerce, electronic signatures, distance contracts, electronic invoicing, data protection in general (Directive 95/46/EC) and data protection in electronic communications[127]. It also contains a chapter on cybercrime. Kosovo is in the process of ratifying the Cybercrime Convention.

2. Regulatory independence

a) Privatisation and operational independence

The incumbent operator, PTK, is 100% state-owned and until recently, under the control of the Kosovo Trust Agency, within the UNMIK administration. Now the state ownership and control functions are exercised by the Ministry of Transport and Communications who is also in charge of telecommunication sector policies.

Although the issue of PTK privatisation was addressed in the Telecommunications Sector Policy, adopted by the government in June 2007, it is unlikely that PTK will be fully or partially privatised in the near future.

b) Administrative independence

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, by both UNMIK and the government.

Another factor undermining the status of the NRA as an independent institution has been unclear or inconsistent provisions in the Telecommunications Law, in particular:

- Section 4(1) of the Law stating that TRA is a body “within the Ministry” and

[127] 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.

- Section 5(4) stating that "all funds collected by TRA shall be deposited pursuant to the applicable budget procedures pertaining to all Government funds in Kosovo."

These have been interpreted as barring TRA from collecting and keeping its own funds and from having its own bank account. As a result, TRA was required by the Ministry of Economy and 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.

On June 13, 2008 the Assembly adopted a set of amendments to the Telecommunications Law intended to strengthen the independence of the NRA. In particular, the amendments:[128]

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

3. Market access and authorisations

The telecommunications market in Kosovo was formally liberalised following the adoption of the Telecommunications Law in May 2003, but the practical implementation was significantly delayed.

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 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 recently 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.

Much more competitive is the Internet services sector, where the incumbent ISP's market share by number of connections is only around 18%. The majority of the broadband connections in Kosovo are offered by alternative ISPs over cable infrastructure.

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 addition to the operators licensed by TRA, two mobile operators licensed in Serbia maintain their presence in Kosovo without authorisation from the Kosovar authorities.

[128] http://inclive.org/m/file.php?file=LAW_AMENDING_THE_LAW_ADOPTED_BY_THE_ASSEMBLY_OF_KOSOVO_2008_03-L085_en.pdf

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.

There is no clear timeframe for the implementation of CS/CPS, number portability and local loop unbundling. The implementation of number portability is delayed by the fact no country code has been assigned to Kosovo by ITU-T. Currently the Serbian country code (+381) continues to be used for the fixed network, while mobile operators use two other codes: Vala uses Monaco (+377) and IPKO uses Slovenia (+386).

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

The European Commission reported some progress.[129] For example, a second mobile operator had become active on the market and two MVNO licences were issued following the introduction of a regulatory framework for MVNOs.

Amendments to the telecommunications law had strengthened the independence of the regulator and gave it responsibility for spectrum allocation and management. The implementation of the sector policy had been delayed, due to a lack of cooperation between the relevant authorities. There had been "no progress" on increasing competition in the fixed telephony market. Kosovo was still seen as being at an "early stage" of liberalisation, with none of the competitive safeguards in place.

The administrative capacities of the ministry and of the regulator were held to be "insufficient", lacking the necessary levels of human resources and expertise.

9. Outlook

The main challenge is to ensure the functioning of TRA as a truly independent institution, in line with the recently adopted amendments to the Telecommunications Law. A closely related issue is improving its expertise and administrative capacity. Following the expiry of the mandates of TRA Board Members at the end of 2008, no decision has been made on the new appointments.

The administrative capacity of the Ministry of Transport and Communications also needs to be strengthened.

Other outstanding issues are the adoption of the secondary legislation and the effective implementation of competitive safeguards.

[129] Kosovo 2008 Progress Report. SEC(2008) 2697.

REPORT II

ANNEX
CROSS-COUNTRY TABLES

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

June 1, 2009

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A. Electronic communications market overview

1. General economic background

Any assessment of telecommunications markets has to be seen against the general performance of the economy, its level compared to other economies and the relative growth rates. This requires data on the size and growth of the economy and of the population. Additionally, it helps to consider the distribution of income within an economy, together with (un)employment, poverty and literacy rates which might all be expected to be correlated with the adoption of ICTs.

2. Currencies, inflation, exchange rates and VAT

In order to compare the economies, markets prices and other indicators between the eight entities and with the EU-27 it is necessary to make adjustments for the different exchange rates (see Table A.1).

Country	Currency	Code	Average exchange rate			Jan. 1, 2009
			2006	2007	2008	
Croatia	Croatian Kuna	HRK	7.3229	7.3362	7.2230	7.3603
FYROM	Macedonian Denar	MKD	61.19	61.17	61.2654	61.4044
Turkey	New Turkish Lira	TRY	1.809	1.7865	1.9064	2.1233
Albania	Albanian Leke	ALL	123.27	122.20	122.8029	123.8000
Bosnia & Herzegovina	Bosnian Marka	BAM	1.96	1.96	1.96	1.9558
Montenegro	Euro	EUR	1.00	1.00	1.00	1.00
Serbia	Serbian Dinar	RSD	85.00	78.67	81.9092	88.6000
Kosovo (UNSCR 1244)	Euro	EUR	1.00	1.00	1.00	1.00

Table A.1 - Exchange rates[1]

[1] MB-Ch.8-Exchange rates at http://www.ecb.int/stats/services/downloads/html/index.en.html
http://www.nbs.yu/export/internet/english/80/80_2/foreign_exchange_rates.pdf
http://www.bankofalbania.org/web/pub/kursi_2008_2349_1.xls
http://www.nbrm.gov.mk/default-en.asp?pmenu=kurslistENIKL

Currency fluctuations can have significant effects when comparing prices, spending patterns and operator revenues. The economic crisis and recession of 2008-09 has caused significant and unanticipated variations in exchange rates. As noted in previous reports, these can cause the apparent decline in the value of specific telecommunications markets when expressed in Euros.

In addition to converting other currencies into Euros, in order to facilitate comparisons, it is helpful to adjust prices using Purchasing Power Parities (PPPs). These are an indicator of the differences in price levels between countries, measuring how many currency units a given quantity of goods and services will cost in different countries. It has been popularised by *The Economist* as the Big Mac Index, measuring the relative cost of a hamburger in a range of countries.[2]

PPPs are derived by relatively complex processes and are subject to revision as better and more complete data become available. Work on determining PPPs in the Western Balkans has been supported by international collaboration involving UNECE, OECD and Eurostat.[3]

The PPPs for candidate and potential candidates are published by Eurostat, these are changed from the last report (see Table A.2). As yet, there are no plausible values or estimates of PPPs for Kosovo. PPPs for 2008 are not yet available.

	2005	2006	2007
Croatia	4.6523	4.6516	4.5292
FYROM	22.5333	22.8318	22.5470
Turkey	1.0265	1.0716	1.1033
Albania	52.1028	52.1503	52.6335
Bosnia & Herzegovina	0.8574	0.8778	0.8891
Montenegro	0.4197	0.4142	0.4362
Serbia	31.7161	34.3351	37.3042
Kosovo (UNSCR 1244)	…	…	…
EU-27	1.0000	1.0000	1.0000

Table A.2 - Purchasing Power Parities (PPPs)[4]

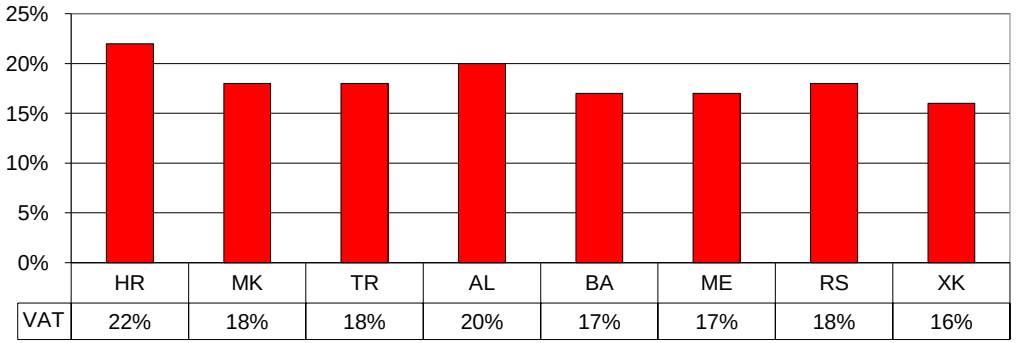
[2] http://www.economist.com/markets/bigmac/index.cfm

[3] http://www.stat.si/radenci/program_2004/roberts-1.doc

[4] European Commission > Eurostat home page > Economy and finance > Prices
http://nui.epp.eurostat.ec.europa.eu/nui/show.do?dataset=prc_ppp_ind&lang=en

Prices can vary because of the different levels of taxation. It is therefore important to be able to identify, compare and, where appropriate, remove this element from any charges. Operators, service providers and business customers can usually reclaim VAT, so that this can be discounted from any charges.

The rates of Value Added Tax (VAT) in South-East Europe range from 15 to 22 per cent (see Figure 1). These are close to the general range of the EU-27.



	HR	MK	TR	AL	BA	ME	RS	XK
VAT	22%	18%	18%	20%	17%	17%	18%	16%

Figure 1 - Rates of Value Added Tax

There are some additional retail taxes, notably the Special Communications Tax (SCT) of 25% on mobile network services and 15% on fixed network services in Turkey. These cannot be reclaimed by businesses and so must be included in charges. In April 2009, a temporary additional 10% tax on impulses in mobile networks was proposed by the Serbian government as part of emergency economic measures to address the consequences of the economic crisis and the growing budget deficit.

3. Population and households

The three candidates and five potential candidates together represent 94 million people or almost twenty per cent of the EU-27 population (see Table A.3). The greatest part of that population is represented by Turkey, nearly ten times the size of Serbia, the next largest. Montenegro has much the smallest population, only 35 per cent larger than Luxembourg. Consequently, it is necessary to be careful when comparing the seven much smaller markets with Turkey. There was a substantial downward adjustment in the population of Turkey for 2006, based on new survey data.

	Population			Inhabitants per sq km		Percentage of EU-27 total 2007	Households		Persons per household
	2006	2007	2008	2006	2007		2006	2007	
Croatia	4.443	4.441	4.432	78.5	78.5	0.89%	1.477		3.0
FYROM	2.039	2.042	2.048	79.3	79.4	0.41%	0.564		3.6
Turkey	72.520	69.689	70.586	89.9	90.1	14.07%	18.492		3.8
Albania	3.149	3.153	3.170	109.5	109.7	0.63%	0.753		4.2
Bosnia & Herzegovina	3.843	3.844	3.843	75.0	75.1	0.77%	1.034		3.7
Montenegro	0.624	0.625	*0.634*	45.1	45.2	0.12%	0.180	0.183	3.5
Serbia	7.425	7.382	7.365	95.8	95.3	1.49%	2.521	2.537	2.9
Kosovo (UNSCR 1244)	2.100	2.127	*2.070*	192.9	195.3	0.42%	0.311		6.6
Total	96.143	93.303	94.148	-	-	18.84%	25.343		3.7
EU-27	492.965	495.090	497.455	114.8	-	-	-		2.4

Table A.3 - Populations and households (millions)

Notes:
Source: Eurostat Pocketbook on candidate and potential candidate countries 2009 edition. KS-PF-09-001-EN (Table 1.1). 2007 and 2008 data from Eurostat population data.
EU-27: Household composition is for the EU-25 in 2003.[5]
Montenegro: Population density is for 2005.
Kosovo: Population density is for 2005.

The population in the EU-27, as well as Turkey, Montenegro and FYROM have been increasing since 1996 as, since 2000, has Albania. While the EU-27 population grew by almost 3.3%, the growth of Turkey was 16.3%. Montenegro and FYROM grew slightly faster than the EU-27, while Albania was slightly slower. However, Serbia has seen a reduction in its population.

There has been considerable migration in recent years both within and beyond the region. These movements may not be fully reflected in the figures and the patterns may not yet be fully documented and understood.

The household composition is quite different from the existing EU member states, which have an average of 2.4 members per household. In South-East Europe, households are significantly larger, notably in Turkey and Albania respectively 3.8 and 4.2. The figure for Kosovo is extremely high, being 2.8 times

[5] http://epp.eurostat.ec.europa.eu/tgm/printTable.do?tab=table&plugin=1&language=en&pcode=cdb10000&printPreview=true

the EU average, a level normally associated with some of the least developed countries. According to *Kosovo in figures in 2006* the average number of household members in rural areas was 7.8.[6] Higher numbers of persons in a household would suggest that, cultural factors being equal, fixed telephone and broadband lines would be available to a larger number of people than in the EU-27.

4. Gross Domestic Product

The Gross Domestic Product (GDP) is defined as the total market value of all final goods and services produced within a country in a year.[7] There is long-standing evidence that GDP and GDP growth correlate with telecommunications and telecommunications network growth.[8]

There are problems of determining the value of GDP accurately in some economies, given the existence of "informal" sectors that must be estimated.

The values shown in Table A.4 indicate the very different sizes of the economies of the region.

	2001	2002	2003	2004	2005	2006	2007
Croatia	22,138	24,448	26,216	28,677	31,263	34,221	37,497
FYROM	3,839	4,001	4,105	4,325	4,676	5,081	*5,155*
Turkey	219,816	243,570	269,322	314,304	387,655	419,013	480,281
Albania	4,541	4,705	5,048	5,883	6,582	*6,911*	*7,326*
Bosnia & Herzegovina	5,930	6,559	7,416	8,071	8,655	9,777	11,065
Montenegro	1,295	1,360	1,510	1,670	1,815	2,149	*2,256*
Serbia	13,186	16,812	18,009	19,724	21,077	24,255	*31,400*
Kosovo (1244)	1,624	1,735	1,797	3,007	3,068	3,192	-
EU-27	9,579,832	9,941,617	10,108,367	10,602,725	11,062,220	11,672,735	12,339,731

Table A.4 - Gross domestic product (Euro million)[9]

The economic crisis of 2008-09 has caused the European Commission, the European Central Bank and the International Monetary Fund (IMF) to reduce their forecasts for growth of GDP, often by significant amounts. Indeed, they have made progressively more pessimistic forecasts for the global economy and especially for certain countries. Forecasts for 2009 are much less certain than in the past, as they rely on the view taken of the effects on individual

[6] http://www.ks-gov.net/ESK/esk/pdf/english/general/kosovo_figures_06.pdf

[7] http://circa.europa.eu/irc/dsis/nfaccount/info/data/ESA95/ESA95-new.htm

[8] Lars-Hendrik Röller & Leonard Waverman (2001) "Telecommunications infrastructure and economic development: a simultaneous approach" *The American Economic Review* **91** (4) 909-923.

[9] Source: Table 5.1 in Eurostat Pocketbook on candidate and potential candidate countries 2009 edition. KS-PF-09-001-EN. and http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=0&language=en&pcode=tgs00028

national economies and the speed with which each might be expected to begin to recover. Nonetheless, the IMF suggests that growth in the Western Balkans and Turkey will resume and will be substantially higher than in the Euro zone (see Figure 2).

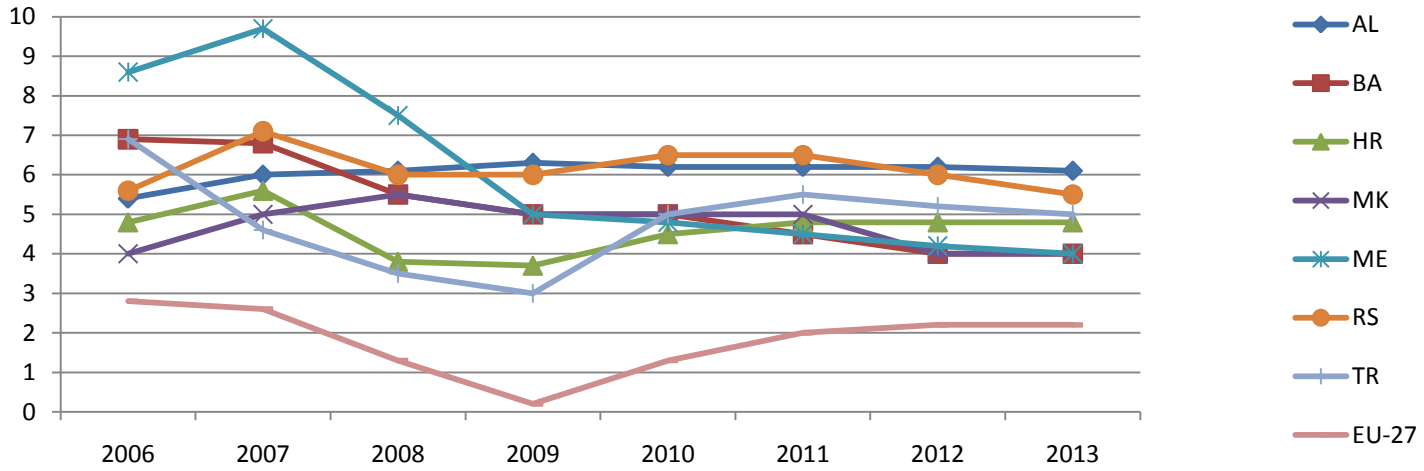


Figure 2 - IMF forecasts for economic growth (October 2008)[10]

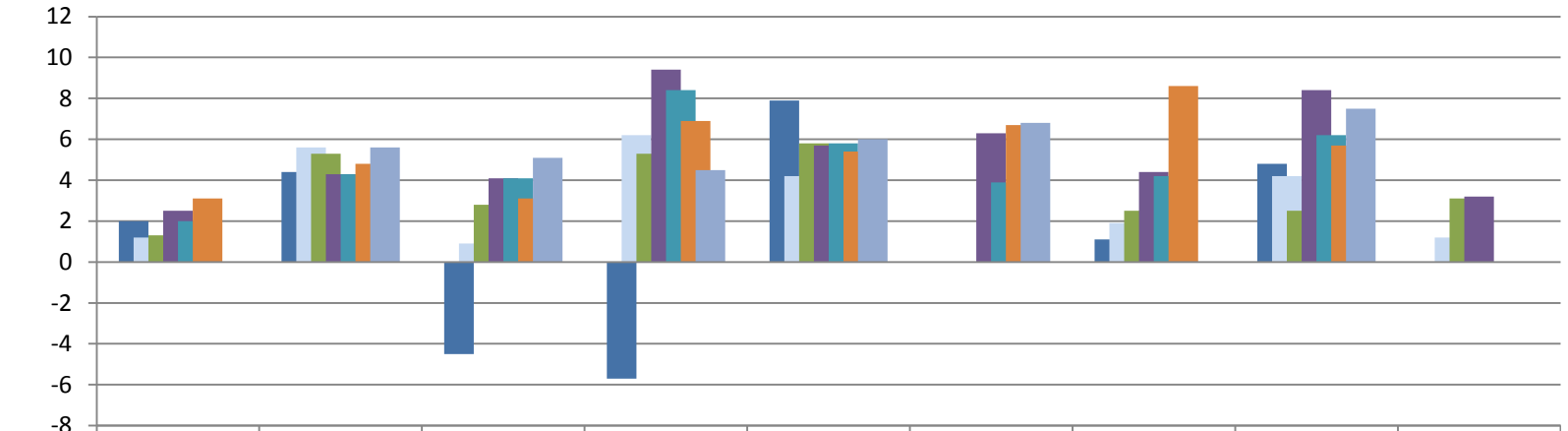
In its response to the global economic crisis, the EC adopted an Economic Recovery Plan in November 2008.[11] It committed to continuing support for the economic and social consolidation of the candidate countries and the Western Balkans, announcing its intention to allocate €120 million 2009 for the "Crisis Response Package", which is expected to leverage some €500 million in loans from international financial institutions.

In the period from 2000 to 2006 GDP growth in constant prices was considerably higher in most of the candidates and potential candidates than in the EU. The average growth in the EU-27 was 2.2%, less than half that achieved by Croatia. Other economies managed 5 or even 6 per cent.

Figure 3 shows the GDP growth rates over recent years, compared to that of the EU-27.

[10] http://www.imf.org/external/datamapper/index.php

[11] Communication from the Commission to the European Council: A European Economic Recovery Plan, COM(2008) 800 final, 26.11.2008.

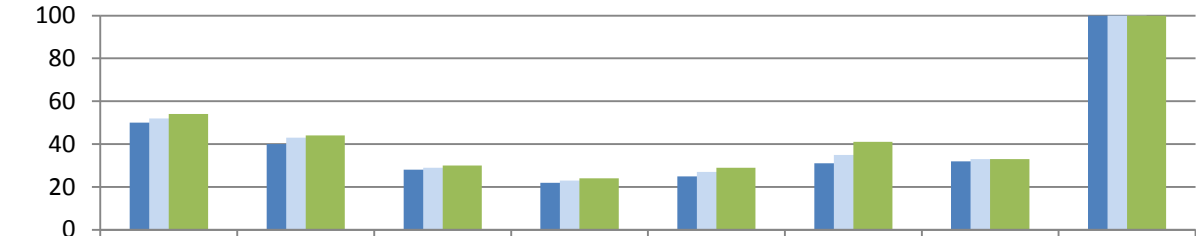


	EU-27	HR	MK	TR	AL	BA	ME	RS	XK
2001	2.0	4.4	-4.5	-5.7	7.9		1.1	4.8	
2002	1.2	5.6	0.9	6.2	4.2		1.9	4.2	1.2
2003	1.3	5.3	2.8	5.3	5.8		2.5	2.5	3.1
2004	2.5	4.3	4.1	9.4	5.7	6.3	4.4	8.4	3.2
2005	2.0	4.3	4.1	8.4	5.8	3.9	4.2	6.2	
2006	3.1	4.8	3.1	6.9	5.4	6.7	8.6	5.7	
2007		5.6	5.1	4.5	6.0	6.8		7.5	

Figure 3 - GDP growth rates[12]

[12] Source: Table 5.1 in Eurostat Pocketbook on candidate and potential candidate countries 2009 edition. KS-PF-09-001-EN.Eurostat http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=0&language=en&pcode=tsieb020. In the absence of data from Eurostat, IMF data were used for Albania for 2006 and 2007 and for FYROM for 2007 http://www.imf.org/external/datamapper/index.php

Figure 4 shows the volume indices of GDP per capita in the monitored countries, expressed in relation to EU-27=100. With the exception of Croatia and Turkey that had a GDP per capita similar to that of some of the lower EU member states, the remainning countries came out at a level substantially below the average level of the EU-27. Some are around one quarter of that level and making only modest rates of improvement.



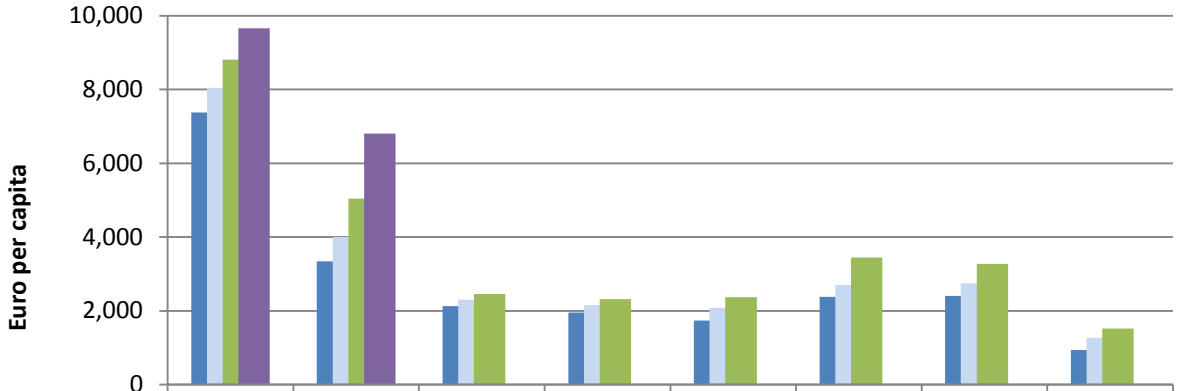
	HR	TR	MK	AL	BA	ME	RS	EU-27
2005	50	40	28	22	25	31	32	100
2006	52	43	29	23	27	35	33	100
2007	54	44	30	24	29	41	33	100

Figure 4 - Volume index of GDP per capita in PPPs[13]

There is a wide range of values for GDP per capita (see Figure 5). Croatia had the highest amongst the candidates and potential candidates at around one third of the EU-27 level. Turkey came next at around 57% of Croatia or 20% of the EU-27, followed by Serbia with about 15% of the EU-27 level. Except for Kosovo that displayed the lowest GDP per inhabitant, the remaining countries had comparable values, ranging between €2,300 and €2,900 per inhabitant.[14]

[13] Table 1 in Eurostat *Statistics in focus* 112/2008.

[14] Eurostat uses an IMF estimate for these numbers

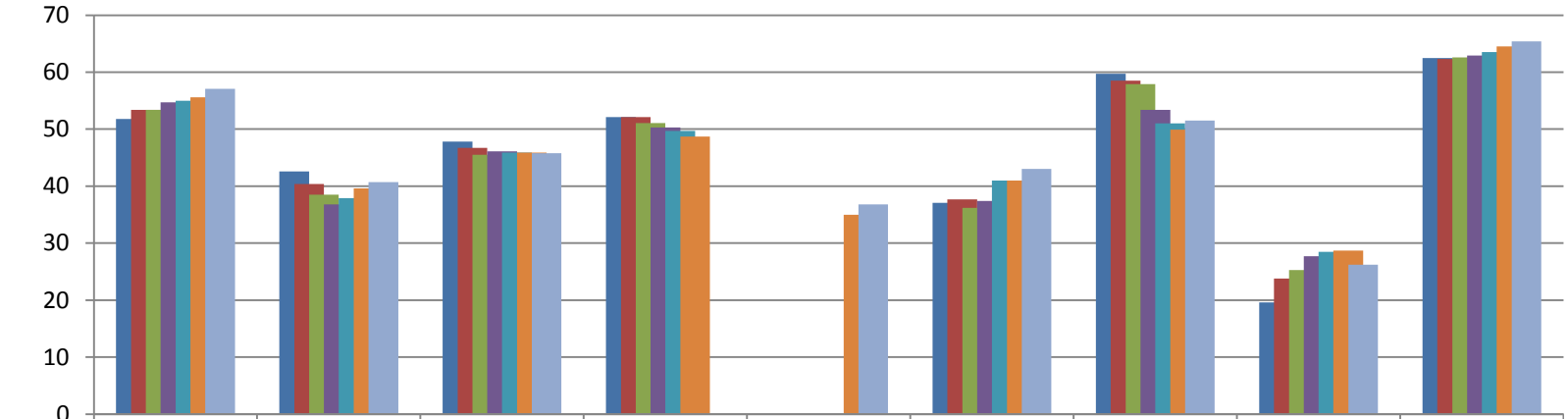


	HR	TR	MK	AL	BA	ME	RS	XK
2004	7380	3341	2126	1954	1739	2378	2408	939
2005	8043	4006	2297	2156	2086	2704	2746	1266
2006	8807	5045	2454	2319	2371	3443	3273	1520
2007	9656	6804						

Figure 5 - GDP per capita in nominal Euro[15]

The candidates and potential candidates all have significantly lower employment rates than the EU-27 (see Figure 6). Kosovo has consistently had the lowest level of employment, at less than half that of the EU-27, though it has shown some improvement. Part of the explanation for the low levels of employment is due to involvement with the 'grey' or 'unofficial' economy, which is expected to decline with the growth of the official economy and with the continuing fight against corruption.

[15] Taken from the previous CI report.



	HR	MK	TR	AL	BA	ME	RS	XK	EU-27
2001	51.8	42.6	47.8	52.1		37.1	59.7	19.6	62.5
2002	53.4	40.4	46.7	52.1		37.7	58.5	23.8	62.3
2003	53.4	38.5	45.5	51.1		36.2	57.9	25.3	62.6
2004	54.7	36.8	46.1	50.3		37.4	53.4	27.7	62.9
2005	55.0	37.9	45.9	49.7		41.0	51.0	28.5	63.5
2006	55.6	39.6	45.9	48.7	35.0	41.0	49.9	28.7	64.5
2007	57.1	40.7	45.8		36.8	43.0	51.5	26.2	65.4

Figure 6 - Percentage of the population aged 15-64 in employment[16]

The unemployment rate in the EU-27 in 2006 was 7.9%. In the candidates and potential candidates, unemployment rates were relatively high, with values of 45% in Kosovo, 36% in FYROM and 31% in Bosnia & Herzegovina in 2006, while in Croatia and Turkey the rates were closer to the EU at 11% and 10% respectively. In the EU-27, the youth unemployment rate was more than double the general unemployment rate, while a range of similar multipliers, from 1.7 in FYROM and Kosovo to 2.6 in Croatia, was observed in the region.

The Gini index is a measure of dispersion used to represent inequality of income distribution. A low Gini index indicates more equal income distribution, while a high index indicates more unequal distribution. 0 corresponds to perfect equality and 100 corresponds to perfect inequality. For the EU-15, Eurostat

[16] Source: Table 4.1 in Eurostat Pocketbook on candidate and potential candidate countries 2009 edition. KS-PF-09-001-EN.

has reported relatively constant values of the Gini Index at around 29 and 30 over the first half of this decade, while for the NMS-10 the figure has risen from 29 to 32. There is only limited evaluation of the Gini index in South-East Europe, in part because of the complex processes involved. Eurostat reported Croatia in 2003 having 29, while Turkey had 46 and 45 in 2002 and 2003 respectively.

The UNDP for 2007-08 reported data for five entities, confirming the high value for Turkey, but also suggesting a relatively high value for FYROM (see Table A.5). With the exception of Turkey, the literacy rates are quite high.

	Gini Index	Adult literacy rate
Croatia	29.0	98.1
FYROM	39.0	96.1
Turkey	43.6	87.4
Albania	31.1	98.7
Bosnia & Herzegovina	26.2	96.7
Montenegro	…	…
Serbia	…	…
Kosovo (UNSCR 1244)	…	…

Table A.5 - Gini and literacy rates[17]

The price levels of consumer electronic goods within Europe are very closely grouped, with the index numbers for 27 of 37 countries in the range 90 to 110, reflecting the easy tradability of such goods across borders. South-East Europe is mostly within the same range, though Montenegro has a significantly lower price level (see Figure 7).

However, the price level indices in 2006 for communications show much greater variation than for goods (see Figure 7 and Figure 7). The countries of the Western Balkans show some substantially lower prices than the EU-27 average.

[17] http://hdrstats.undp.org/indicators/147.html

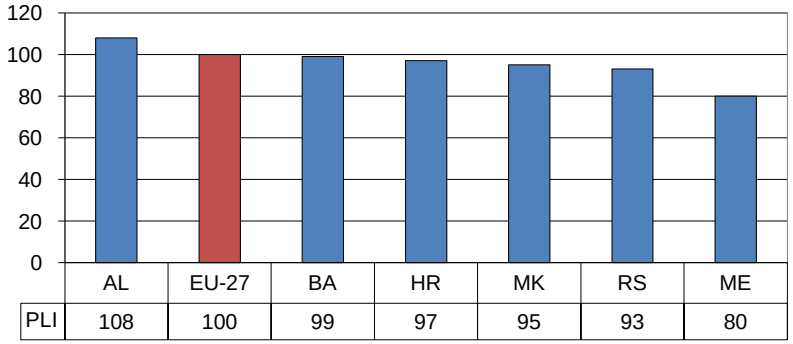


Figure 7 - Price level index for consumer electronic goods (2007)[18]

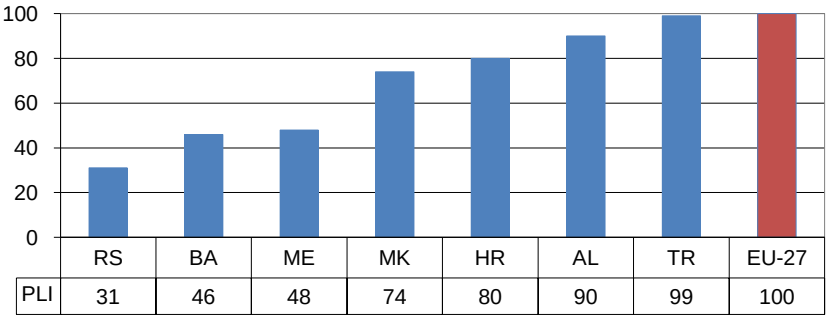


Figure 8 - Price level index for communications (2006)[19]

Cultural and economic factors lead to considerable variations in household spending patterns (see Figure 9). Communications in 2006 (the topmost segment) accounted for anywhere from 2.3% of household spending in Kosovo to 5.7% in Montenegro.

[18] Eurostat *Statistics in focus* 63/2008.
[19] Eurostat *Statistics in focus* 36/2008.

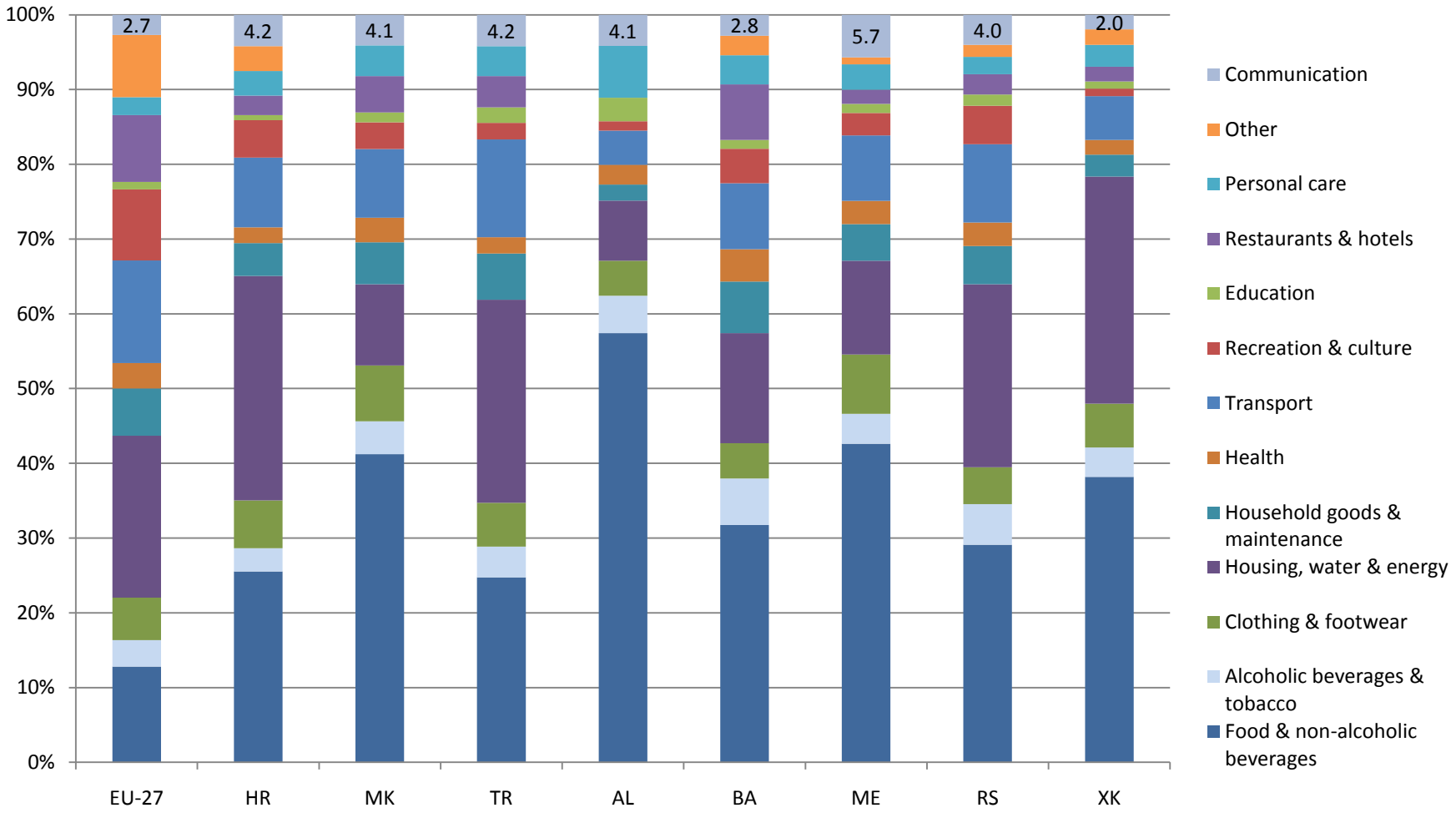


Figure 9 - Breakdown of household expenditure (2007)[20]

[20] Table 3.3 of Eurostat Pocketbook on candidate and potential candidate countries 2009 edition. KS-PF-09-001-EN.

5. Electronic communications market value

The total value of the electronic communications market is estimated at €15.86 billion in 2007, a substantial increase from the previous year (see Table A.6). The strong growth of mobile and Internet services over recent years have continued and seem likely to do so into the future. The complete 2008 data is not yet available.

	2006	2007	2006-07 growth
Fixed voice telephony	5,150,815,532	5,411,329,183	5.05%
Internet services	687,550,293	964,779,498	40.32%
Mobile telecommunications	7,113,338,539	9,013,530,423	26.71%
Data communications	378,234,015	384,632,703	1.69%
Cable TV (excl. Internet)	91,903,050	90,599,535	-1.41%
Total	13,421,841,429	15,864,871,342	18.20%

Table A.6 - Total electronic communications markets revenues (Euro)

The greatest share of the market is represented by mobile telecommunications (see Figure 10). The next largest part is fixed voice, with much smaller shares for the Internet, data communications and cable television. Cable television revenue figures, however, are far from being complete as no data was available for Albania and Montenegro at the time of data collection.

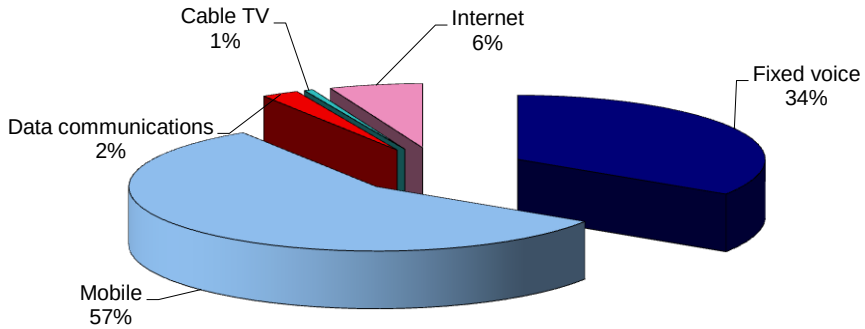
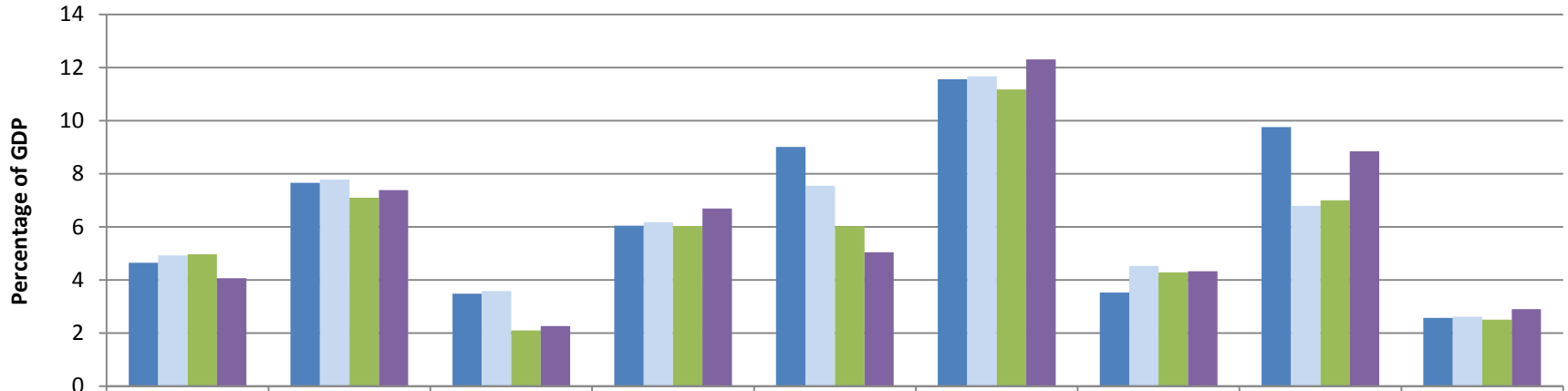


Figure 10 - Electronic communications market in 2007

Electronic communications represents quite different proportions of the various economies (see Figure 11). While this reflects different levels and patterns of spending and of production and supply within an economy it may also be affected by the accuracy of the measurement of the GDP.

The high values for Montenegro may indicate underestimation of the GDP though it is does match the high household spending on communications (see Figure 9).

Taking the individual GDPs from Table A.4 gives a total of €582 billion, which at €15.86 billion for electronic communications gives an average value of 2.7%. This is heavily weighted by the lower Turkish value, excluding which the average is 4.9%.

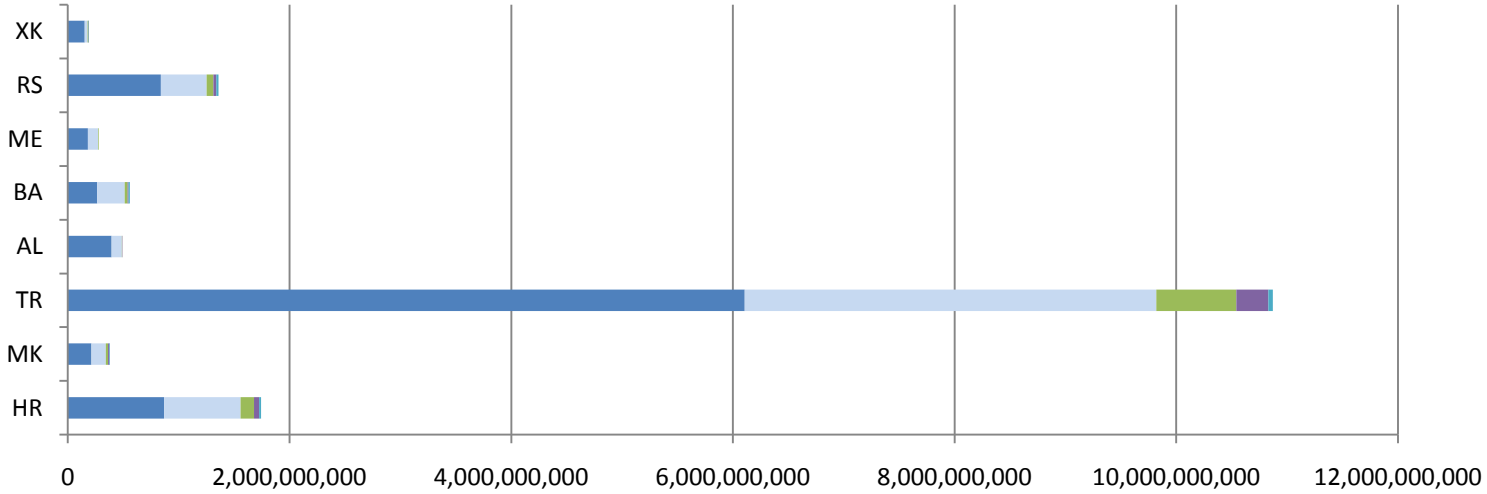


	HR	MK	TR	AL	BA	ME	RS	XK	EU-27
2004	4.65	7.66	3.48	6.04	9.01	11.56	3.53	9.76	2.57
2005	4.92	7.78	3.58	6.18	7.55	11.67	4.53	6.79	2.62
2006	4.97	7.10	2.10	6.03	6.02	11.17	4.28	7.00	2.51
2007	4.07	7.38	2.26	6.69	5.04	12.30	4.33	8.85	2.90

Figure 11 - Electronic communications as a percentage of GDP[21]

Breaking down the markets by economies and sectors, the patterns are inevitably dominated by the size of the Turkish markets (see Figure 12). To remove the effect of the different sizes, the same data are presented as percentages in Figure 13.

[21] 2007 data refer to EU27 instead of EU25, taking into account the EU accession of Bulgaria and Romania.



Euro	HR	MK	TR	AL	BA	ME	RS	XK
Mobile	866,365,111	212,062,744	6,104,860,656	395,404,330	265,186,299	180,155,784	839,160,499	150,335,000
Fixed voice	691,245,827	130,126,912	3,715,485,086	92,235,415	247,887,124	93,049,705	414,111,114	27,188,000
Internet services	121,522,587	21,077,338	722,486,805	2,179,765	26,223,030	4,182,868	59,260,945	7,875,000
Data communications	47,672,126	10,867,374	288,832,732	384,761	8,664,825		26,990,885	1,220,000
Cable television	14,604,755	6,258,493	39,401,249		10,219,008		19,836,029	280,000

Figure 12 - Telecommunication markets in 2007

Notes:

Albania: 2008 data: Fixed voice: €92,579,247 (+0.4%); mobile: €402,026,337 (+ 1.7%); Internet services: €2,258,579 (+3.61%); data communications: €354,226 (-7.9%). No revenue data reported for cable TV services for 2008.

Montenegro: No revenue data reported for data communications and cable TV services.

FYROM: Provisional 2008 data: Fixed voice: €123,766,824 (-4.8%); mobile: €228,004,844 (+7.5%); Internet services: €32,881,610 (+56%); data communications: €14,134,699 (+30.1%); cable TV services € 8,669,477 (+38.5%).

Turkey: Data available as of 3rd quarter of 2008. Fixed voice: €2,129,181,198; mobile: € 5,287,565,137; internet services: € 1,110,220,557; data communications: € 223,750,715.8; cable TV services: € 40,240,590.12.

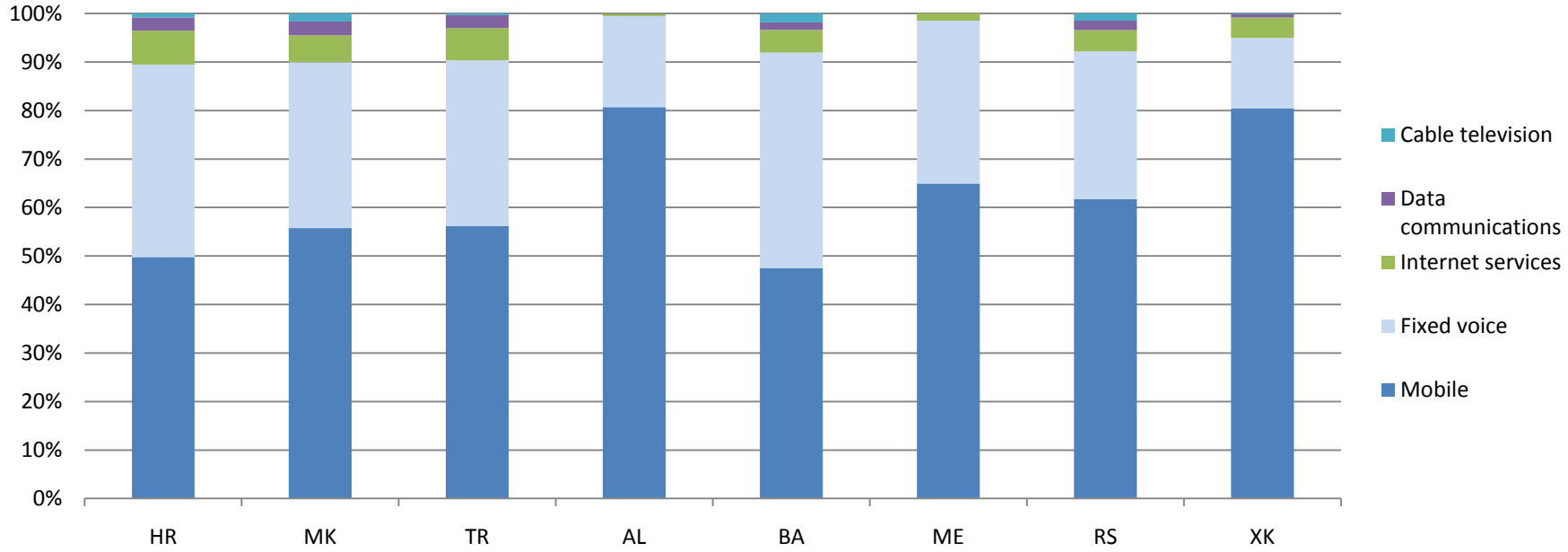
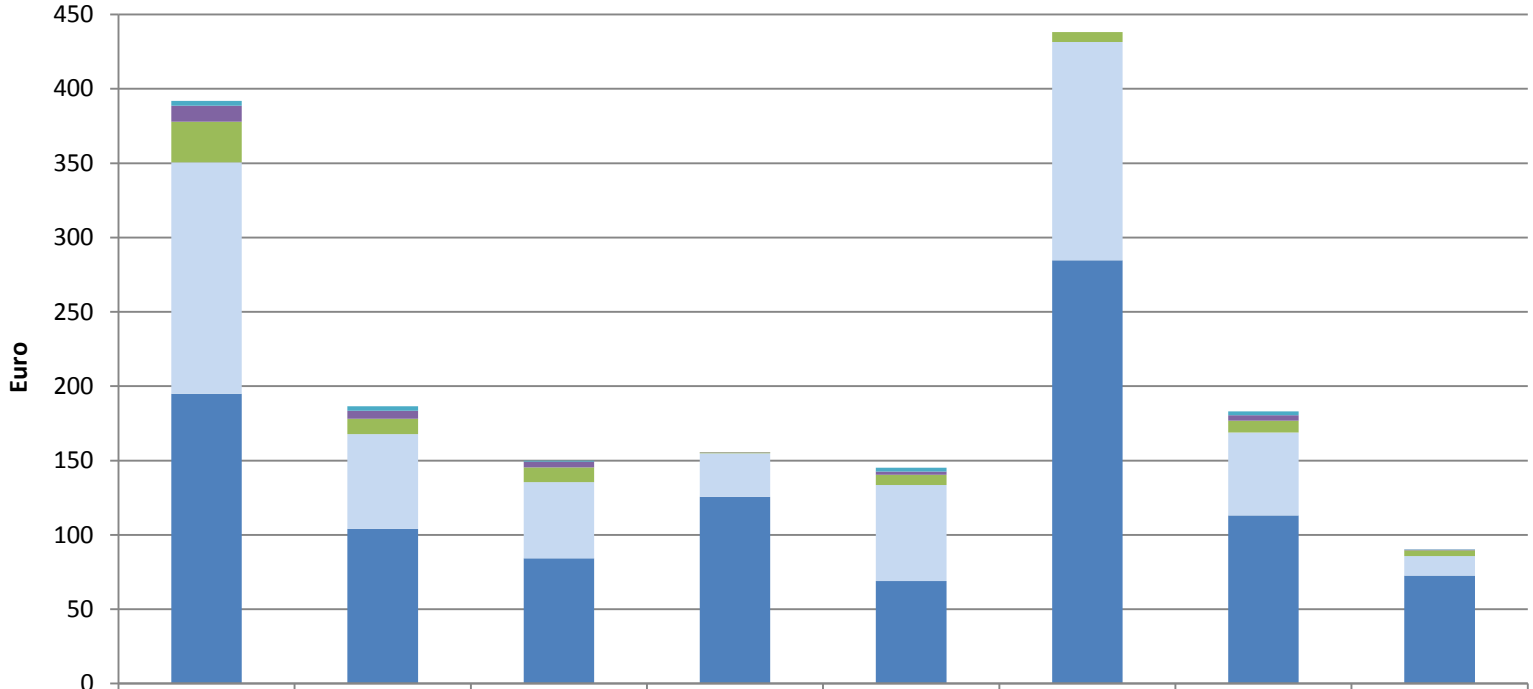


Figure 13 - Composition of telecommunications markets in 2007

Looking at the same data calculated as per capita revenues (see Figure 14), gives yet another view of the markets. Turkey drops down to an average level, while it is Croatia that shows the much larger size of market per capita. Again, it is Kosovo that has the lowest value.



	HR	MK	TR	AL	BA	ME	RS	XK
Cable TV	3.29	3.07	0.54	0.00	2.66	0	2.67	0.14
Data communications	10.73	5.33	3.98	0.12	2.25	0	3.64	0.58
Internet services	27.35	10.34	9.96	0.69	6.82	6.6	7.98	3.80
Fixed voice	155.58	63.82	51.23	29.29	64.50	146.99	55.77	13.13
Mobile	195.00	104.00	84.18	125.57	69.01	284.6	113.02	72.63

Figure 14 - Revenue per capita by sector in 2007

6. Fixed telephony market

a) Fixed network penetration and digitalisation rate

The numbers of active subscriber fixed lines are given in Table A.7, by technology and by type of customer. These are shown as penetration rates, i.e., as lines per 100 population, in Figure 15. Several fixed networks have shown declines in penetration rate as customers express a preference for GSM, which is more personal and offers more flexible use and payment schemes. There are considerable differences in the levels of penetration of the fixed network, with Albania and Kosovo at relatively low levels, while Croatia and Serbia have higher levels, but still substantially below the EU-27 average and well below those of the EU-15.

Country	Total number of fixed lines	By technology		By user category	
		PSTN	ISDN	Residential	Business
Croatia	1,705,434	1,598,251	107,183	1,335,658	370,464
FYROM	457,122	436,581	15,460	400,925	51,116
Turkey	17,680,772	17,663,769	17,003	17,516,266	164,506
Albania	326,336	325,407	929	287,310	39,026
Bosnia & Herzegovina	981,111	947,689	33,422	873,498	107,613
Montenegro	178,809	160,037	18,772	149,099	29,710
Serbia	3,084,872	3,000,937	83,935	2,766,085	318,787
Kosovo	95,862	95,462	400	80,600	15,262
Total	24,510,318	24,143,485	272,074	23,270,173	1,134,686

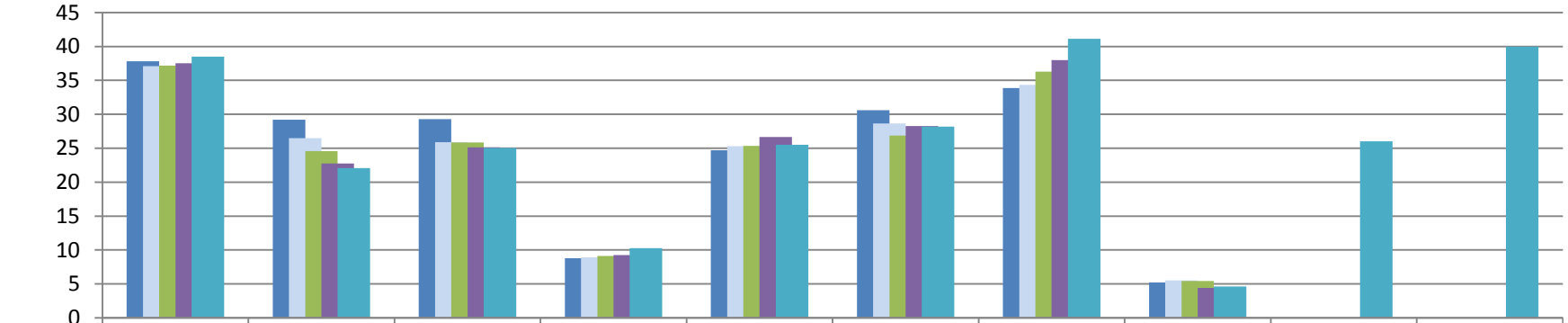
Table A.7 - Fixed network lines by technology and by user category in 2008

Notes:

ISDN: ISDN is offered in two forms: Basic Rate Access (BRA) and Primary Rate Access (PRA). BRA lines allow two telephone numbers and two simultaneous calls, being used by households and smaller organisations. PRA lines enable 30 simultaneous calls and are normally used for larger organisations. The number of ISDN lines is weighted for BRA and PRA.

FYROM: The total includes 5,081 other lines representing public payphones, internal and test lines of the incumbent operator.

Montenegro: The number of ISDN subscriptions at the end of 2008 was 6,740. On December 31, 2008 the number of ISDN-BA lines was 6,551 and number of ISDN-PRA lines was 189. Thus, the total number of ISDN channels was (2 x 6,551) + (30 x 189) = 18,772.



	HR	MK	TR	AL	BA	ME	RS	XK	SEE-8	EU-27
Jan-05	37.82	29.21	29.28	8.78	24.71	30.60	33.89	5.20		
Jul-06	37.11	26.50	25.89	8.93	25.29	28.64	34.35	5.50		
Jan-07	37.18	24.58	25.83	9.14	25.33	26.88	36.30	5.44		
Jan-08	37.52	22.74	25.12	9.25	26.67	28.25	38.01	4.40		
Jan-09	38.48	22.07	25.05	10.29	25.53	28.20	41.14	4.63	26.00	40

Figure 15 - Fixed lines per 100 population

The process of converting analogue networks to digital has been relatively slow, but should be completed within the period of the present monitoring project. Table A.8 shows the levels in 2006, 2007 and 2008. Croatia, Montenegro, FYROM and Kosovo have achieved full digitalisation. Turkey has achieved full digitalisation in 2008, and Albania and Bosnia & Herzegovina have almost reached the target. Serbia, which had less than 70% in 2005, has made significant progress and should reach 100% by 2010.

Country	January 2007	January 2008	January 2009
Croatia	100.0	100.0	100.0
FYROM	100.0	100.0	100.0
Turkey	98.3	99.0	100.0
Albania	99.86	99.87	99.92
Bosnia & Herzegovina	98.4	99.0	99.2
Montenegro	100.0	100.0	100.0
Serbia	88.6	93.3	95.5
Kosovo	49.0	100.0	100.0

Table A.8 - Fixed network digitalisation rate (%)

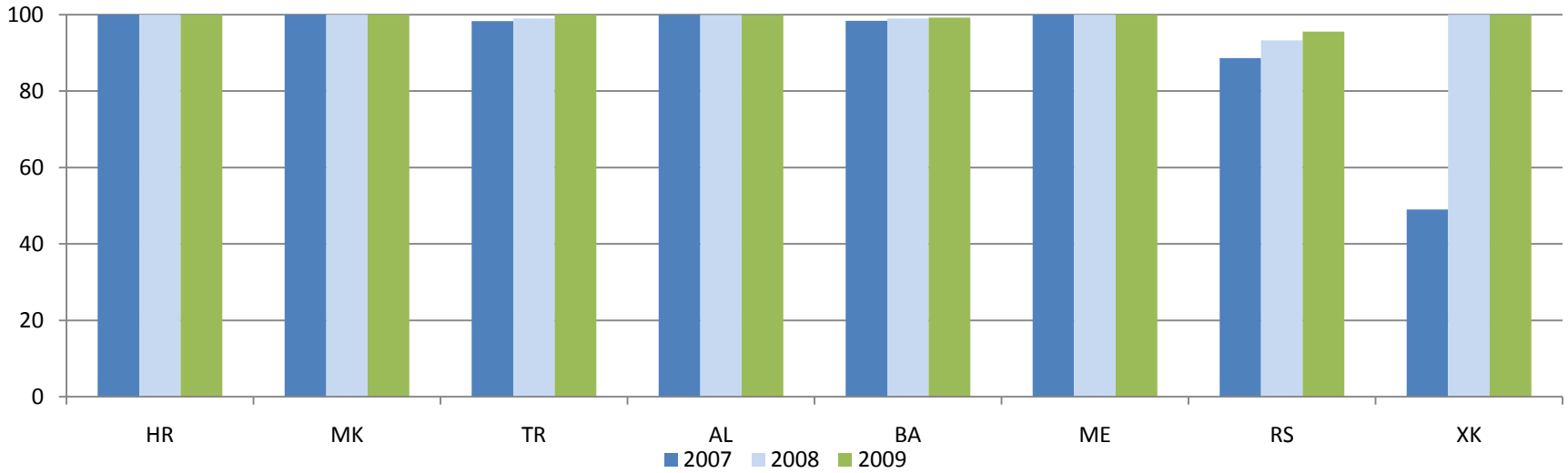


Figure 16 - Fixed network digitalisation rate (%) – growth 2007-2009

Party or group lines serve two or more subscribers and remain a significant factor in the region (see Table A.9). These lines are a potential barrier to any intensive use of the telephone service, such as dial-up Internet access and value added services. They are also an obstacle to local loop unbundling and thus to broadband Internet access. Croatia, FYROM, Kosovo and Turkey have no party lines. Small but significant percentages are still found in Albania, Bosnia & Herzegovina, Montenegro and Serbia.

Country	Multiple party lines	
	Total number	As percentage of total fixed lines
Croatia	0	0.0
FYROM	0	0.0
Turkey	0	0.0
Albania	14,000	5.0
Bosnia & Herzegovina	19,694	2.0
Montenegro	2,562	1.4
Serbia	177,415	5.75
Kosovo	0	0.0

Table A.9 - Multiple party lines in 2008

b) Competition

The development of competition in fixed networks and services in each country has been determined by individual liberalisation processes. In some cases, it has been gradual, with local and domestic long distance services being opened to competition at different times. Albania and Turkey are examples where competition at the local and the national level was not introduced at the same time. However, now in Albania all authorisations apply on national level. In Turkey, the new general authorisation regime with notification to the NRA is expected to enter into force in May 2009.

Table A.10 shows authorised public network operators and public fixed voice telephony service providers and highlights those which are operational in the market. Public network operators are defined as those installing, managing and operating a telecommunications transmission network to provide public telephony services or public network services. Public fixed voice telephony service providers include cable operators providing public voice telephony are also included as well as managed VoIP operators.

Country	Public fixed telephony network operators		Public fixed voice telephony service providers	
	Authorised operators	Operators active in the market	Authorised operators	Operators active in the market
Croatia	15	9	54	39
FYROM	47	7	132	26
Turkey	1	1	33	N/A
Albania	67	67	67	67
Bosnia & Herzegovina	74	74	14	13
Montenegro	2	2	10	5
Serbia	1	1	1	1
Kosovo	3	2	3	2

Table A.10 - Competition in fixed telephony - public network operators and service providers

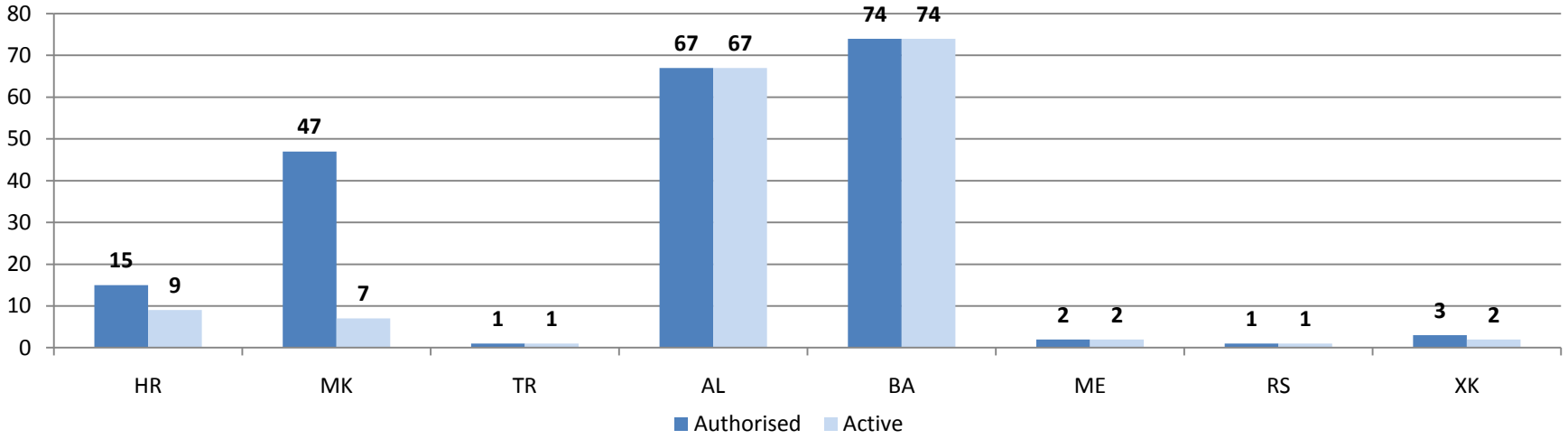


Figure 17 - Public fixed telephone network operators

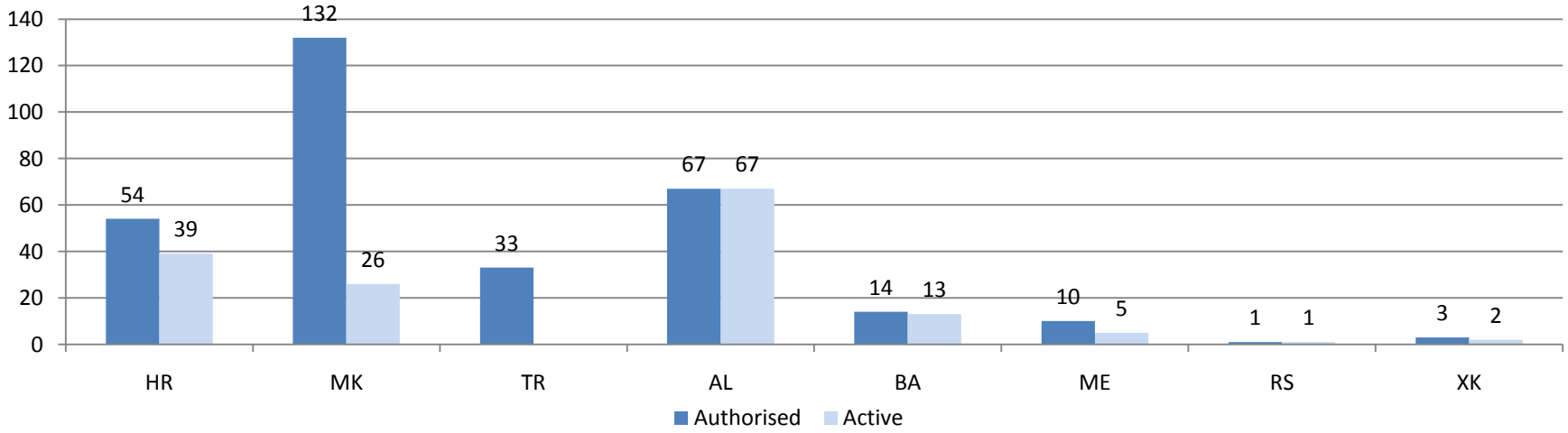


Figure 18 - Public fixed voice telephony service providers

Notes:

Turkey:	Only Türk Telekomünikasyon A.Ş. is authorised to operate public fixed telephony networks. The only competitors are long distance operators using CS/CPS and VoIP calls licensed under Type 2 licences.
Montenegro:	There are only two licensed fixed telephony network operators: T-Com Montenegro (formerly Telecom Montenegro), the incumbent, and M:Tel, a mobile operator that also provides fixed wireless access using WiMAX. The number of authorised public voice telephony service provides includes eight licensed VoIP providers. The NRA granted five licences for VoIP in September 2007 and a further three in February 2008.
Serbia:	Until December 2008, Telekom Srbija was the only licensed fixed network operator in the market. Between December 22, 2008 and May 22, 2009 RATEL issued 20 authorisations for public telecommunications networks and 23 authorisations for voice transmission service over the Internet (without the right to use numbering resources). So far, however, Telekom Srbija remains the only licensed provider of public voice telephony services over own fixed network and use of numbers.
Kosovo:	Ipko Telecommunications is the second authorised fixed telephony network operator. Konet is the third operator, licensed in January 2009, not yet operational.

Table A.11 shows the proportion of fixed subscriber numbers allocated to incumbent and alternative operators. It is an important indicator of the state of competition in the fixed market, though it is not to suggest that all of the allocated numbers are in immediate use.

Country	Fixed incumbent operator (%)	Alternative operators (%)
Croatia	91.1	8.9
FYROM	82.8	17.2
Turkey	100.0	0.0
Albania	60.3	39.7
Bosnia & Herzegovina	95.0	5.0
Montenegro	96.4	3.6
Serbia	100.0	0.0
Kosovo	95.4	4.6

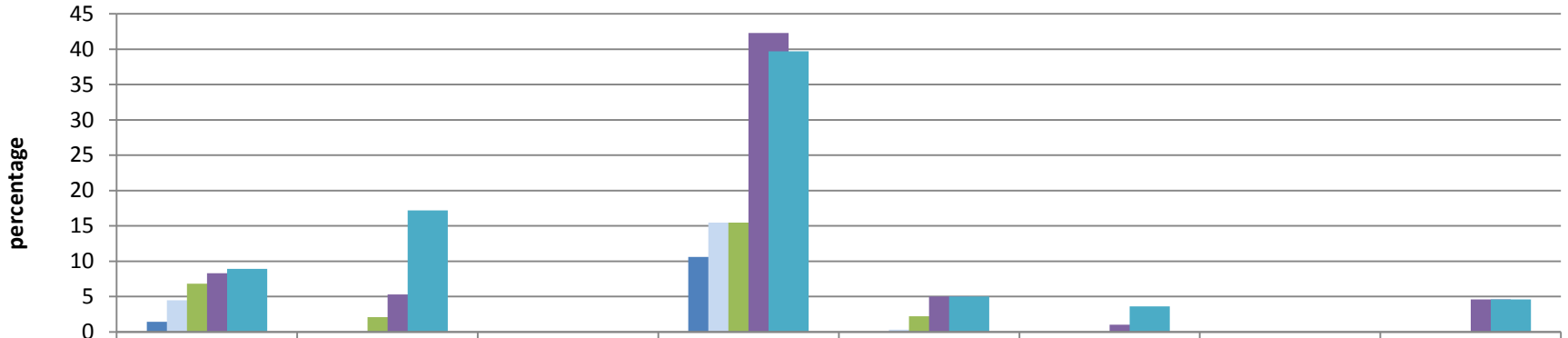
Table A.11 - Competition in fixed telephony - numbers allocated by NRA in 2008

Notes:

Albania:	As of February 2009
Montenegro:	Agency for telecommunications and postal services of Montenegro allocated 1,468,000 numbers to T-Com Montenegro (fixed incumbent operator) and 55,000 numbers to alternative (VoIP) operators – M:Tel, Broadband Montenegro, Dimal Telecom, PTT inzenjering, VOIP Telecom.

Figure 19 shows the trends over time of the numbers allocated to alternative providers.

The overall numbers given to alternative operators is still very small and in the cases of Turkey and Serbia no numbers have ever been allocated. By contrast, Albania has assigned almost half of its fixed numbers, indicating a very strong basis for competition.



	HR	MK	TR	AL	BA	ME	RS	XK
Jan-05	1.40	0.00	0.00	10.60	0.00	0.00	0.00	0.00
Jul-06	4.47	0.00	0.00	15.44	0.30	0.00	0.00	0.00
Jan-07	6.81	2.08	0.00	15.44	2.20	0.00	0.00	0.00
Apr-08	8.30	5.30	0.00	42.30	5.00	1.00	0.00	4.60
Jan-09	8.9	17.2	0.00	39.7	5.00	3.6	0.00	4.60

Figure 19 - Percentage of fixed numbers allocated to alternative operators

Market shares can be measured in many different ways, by numbers of lines, customers, minutes of traffic and revenues. Table A.12 shows the market share of the respective incumbent operators by revenues and by minutes of traffic. It is given for both national calls and international calls, then as the overall figure, the sum of the two other markets.

The continued dominance of the incumbent operators is very clear in every case for which there are data. The high market shares for international traffic suggest that the basic measures to introduce competition, by opening international gateways have not been taken or have not been effective. Alternative operators using carrier selection or VoIP ought to be able to claim significant market shares with limited investment.

Country	Overall market share		National calls		International calls	
	By retail revenue	By minutes of traffic	By retail revenue	By minutes of traffic	By retail revenue	By minutes of traffic
Croatia	82.20	77.5	82.20	77.10	82.40	86.30
FYROM	90.70	99.2	98.50	99.1	85.00	73.90
Turkey	80.00	88.0	N/A	88.00	N/A	78.00

Country	Overall market share		National calls		International calls	
	By retail revenue	By minutes of traffic	By retail revenue	By minutes of traffic	By retail revenue	By minutes of traffic
Albania	94.00	92.7	N/A	72.40	N/A	96.00
Bosnia & Herzegovina	97.14	99.58	99.94	99.83	93.06	98.64
Montenegro	N/A	99.0	N/A	99.00	N/A	98.23
Serbia	100.00	100.00	100.0	100.00	100.00	100.00
Kosovo	99.60	N/A	N/A	N/A	N/A	N/A

Table A.12 - Competition in fixed telephony - Incumbent operator's market share (%) in 2008

Notes:
FYROM: Since there is no 2008 data available for all fixed voice telephony market players, the NRA approximates that the market share of the incumbent in international call market is between 85-90%
Turkey: Data as of September 2008. International calls data includes only outgoing traffic.
Bosnia & Herzegovina: The table shows combined market shares of the three incumbent operators.
Montenegro: Operators must submit revenue data related to the previous year to the NRA by June 30, according to the Accounting Law. Therefore no revenue data for 2008 are available yet. From 2010 the deadline for providing financial data will be end of the February.

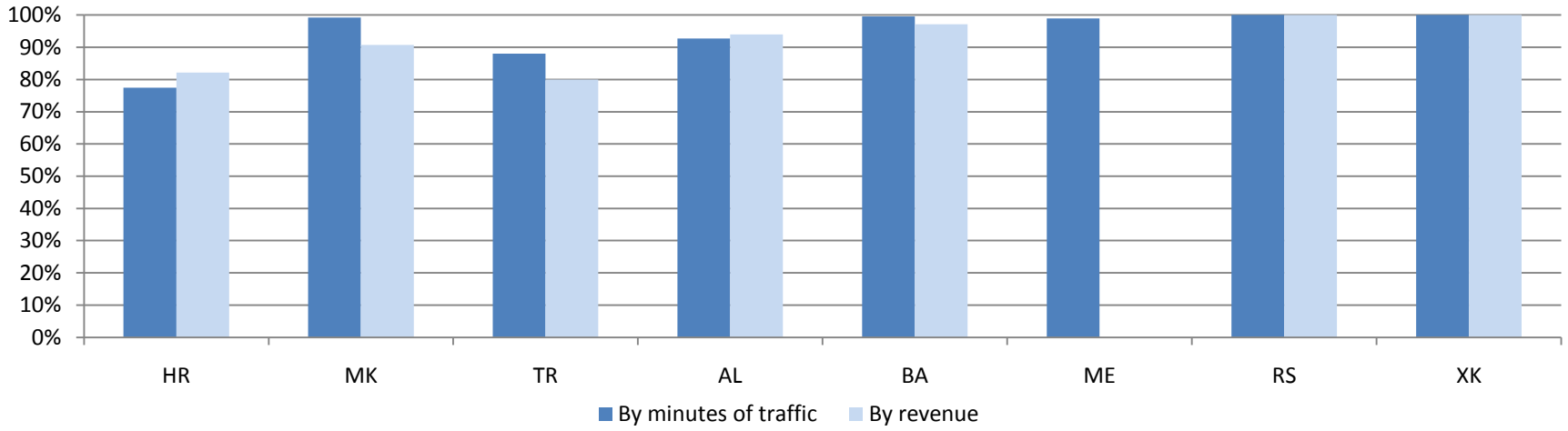


Figure 20 - Incumbent operators' overall market share in fixed voice telephony in 2008

Voice over Internet Protocol (VoIP) is now a well established service in the EU-27 and one frequently advertised in South-East Europe. Yet the market shares for operators using VoIP appear to be relatively small (see Table A.13). The differences between the columns reflect the unit prices, so that cheaper VoIP calls will show as a lower percentage of revenues than minutes of traffic.

Country	By retail revenue	By minutes of traffic
Croatia	1.8	5.7
FYROM	9.62	10.73
Turkey	8.0	3.65
Albania	5.8	4.0
Bosnia & Herzegovina	N/A	N/A
Montenegro	N/A	0.21
Serbia	0.0	0.0
Kosovo	0.0	0.0

Table A.13 - Market share of VoIP operators (%) in 2008

Notes:
Croatia: Internet traffic is not included.
Bosnia&Herzegovina: According to the licence for provision of public fixed telephone services, fixed voice telephony services can be deployed based on the technology neutrality principle. There are no separate data for VoIP providers.
Turkey: Long distance service providers can provide VoIP services. There is no different licence type for VoIP services.

A cost-effective way for alternative carriers to take market share from incumbent operators is using carrier selection (CS) and carrier pre-selection (CPS). Table A.14 shows the levels of adoption of both, broken down by national and international call destinations.

Country	Subscribers using an alternative provider for voice telephony services through CS/CPS and/or direct access		
	Total number of subscribers using an alternative provider	Subscribers using an alternative provider for national calls	Subscribers using an alternative provider for international calls
Croatia	418,050	N/A	N/A
FYROM	11,633	11,633	11,633
Turkey	3,962,466	N/A	N/A
Albania	60,000	N/A	N/A
Bosnia & Herzegovina	7,405	6,150	7,405
Montenegro	6,592	6,592	6,592
Serbia	...	...	…
Kosovo	4,862	4,862	4,862

Table A.14 - Subscribers using alternative providers for voice telephony services in 2008

Notes:
Albania, Serbia and Kosovo: CS/CPS not available. In Albania, around 18% of Albtelecom's subscribers use VoIP services of alternative providers based on prepaid calling cards.
60,000 subscribers for Albania: estimate reported in AKEP Market Indicators Information Report, April 2009.
FYROM: The NRA asked for the total number of subscribers using carrier selection, without requiring that they be broken down by the destination of the call.

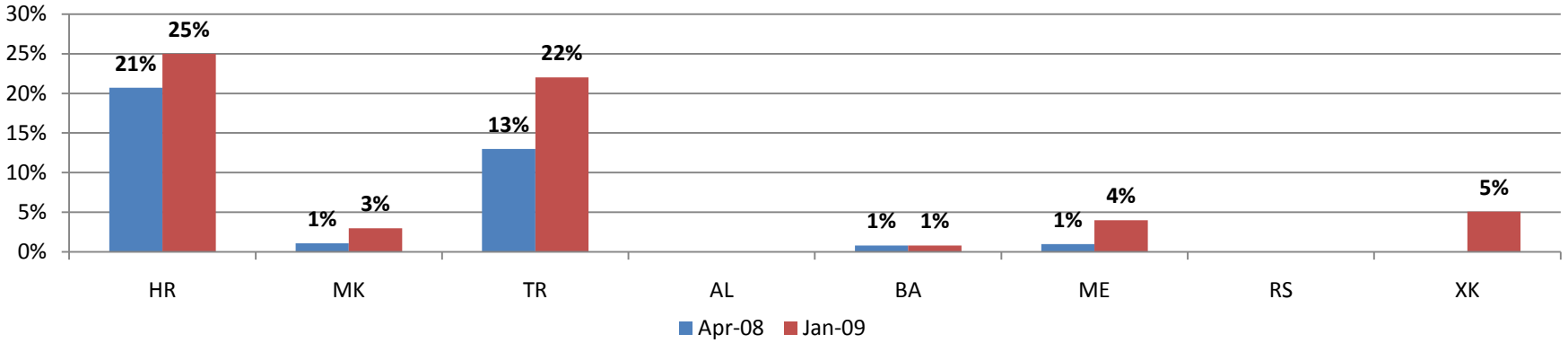


Figure 21 - Subscribers using alternative providers as percentage of total number of fixed lines

7. Mobile market

a) Mobile subscribers

At the end of 2008 there were over 91 million subscribers of mobile services (see Table A.15). The rise in the levels of mobile penetration rates has been rapid and sometimes dramatic (see Figure 22). Croatia, FYROM and Montenegro already have reached mobile penetration rates above the EU-27 average.

However, these numbers are not to be taken to mean that everyone in South-East Europe has a mobile phone. There appear to be significant numbers of plastic roamers that is people with multiple SIM cards who switch to a local operator on moving between the entities or on moving into South-East Europe from the rest of the Europe. Some others may have multiple domestic SIM cards in order to exploit particularly attractive tariffs or to ensure network coverage. Discrepancies also arise from different practices in defining an 'active' pre-paid customer, ranging from three to 12 months, depending on the mobile operator.

Country	Total number of active subscribers	Penetration rate (%)
Croatia	5,879,850	132.55
FYROM	2,501,938	123.7
Turkey	65,824,110	92.0
Albania	2,964,473	92.0
Bosnia & Herzegovina	3,179,036	82.7

Country	Total number of active subscribers	Penetration rate (%)
Montenegro	1,150,459	185.5
Serbia	9,618,767	128.3
Kosovo	1,235,000	59.0
Total	92,353,633	98.1

Table A.15 - Mobile subscribers in 2008

Notes:

FYROM: T-Mobile applies 6 months period for the definition of the active subscriber, VIP and Cosmofon use 12 months period.

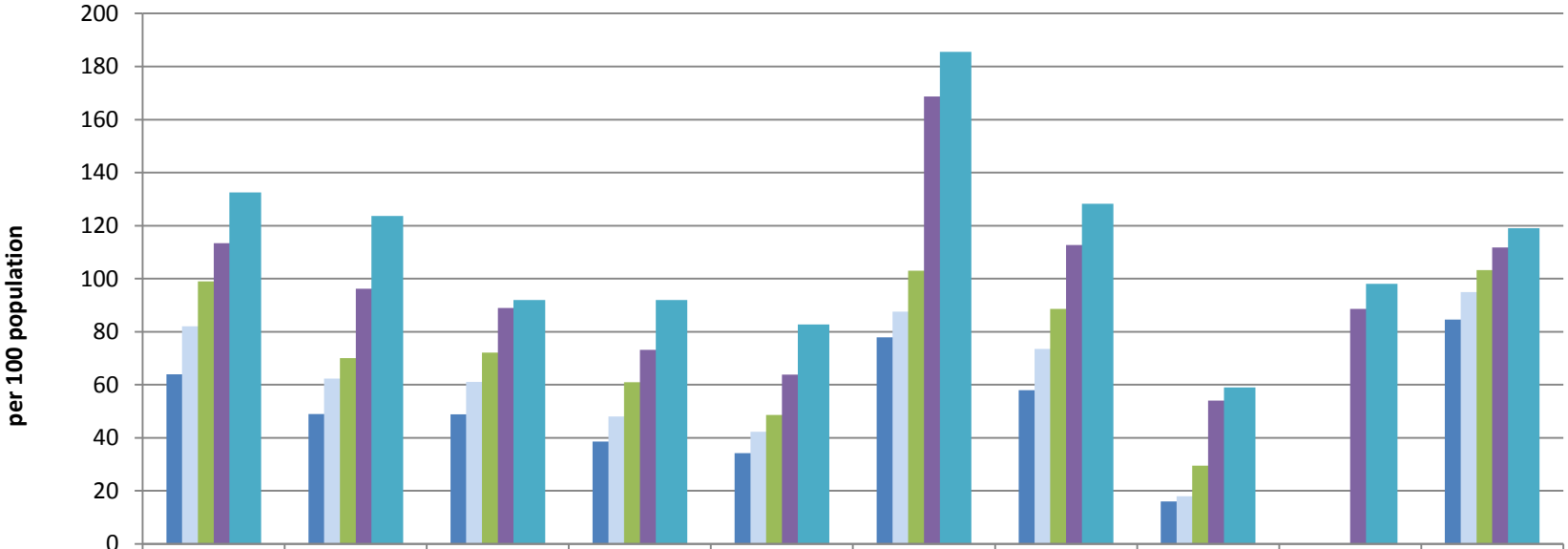
Albania: The definition of active subscribers is given based on the terms of use of recharging cards for pre-paid users.
AMC: The ALBAKARTA service can be used for 12 months from activation. If the credit is used up before this period then a customer continues to receive calls for another 6 months.
Vodafone Albania: The subscriber can make as many phone calls as are allowed by the value of its credit, until 6 months after the activation of the SIM card. Airtime duration is for 6 months and cannot be transferred to another SIM card. If the credit of the SIM card has finished, the subscriber can still receive phone calls within 6 months from the card activation. If the SIM card credit has not been consumed within 6 months, the subscriber loses its right to use the remaining credit.
Eagle Mobile: All Eagle Mobile Card services can be used for 12 months since the moment of activation (i.e. since the moment you will make the first call). If credit ends before the above period, then calls can still be received within 6 months from the card activation.

BiH: The 'active' periods are 90 days for BH Telecom and 120 days for m:tel.

Montenegro: As of December 31, 2008. Pre-paid card subscribers are dropped after 12 months of inactivity. The main tourist season is June to August when large numbers of pre-paid cards are sold. The penetration is calculated using the most recent official data on population: 620,145 at the end of 2003.

Serbia: Data as of Dec. 2007. mt:s applies a four months 'active' period.

Kosovo: Ipko has 349,000 mobile subscribers and Vala has 886,000 subscribers. 'Active' periods are one year for IPKO and four months for Vala.



	HR	MK	TR	AL	BA	ME	RS	XK	SEE-8	EU-27
Jan-2005	64.0	49.0	48.9	38.6	34.2	77.9	57.9	16.0		84.6
Jan-2006	82.1	62.4	61.1	48.0	42.3	87.6	73.5	18.0		95.0
Jan-2007	99.0	70.1	72.2	61.0	48.6	103.0	88.6	29.5		103.2
Jan-2008	113.4	96.2	89.0	73.2	63.8	168.7	112.7	54.0	88.6	111.8
Jan-2009	132.5	123.7	92.0	92.0	82.7	185.5	128.3	59.0	98.1	119.0

Figure 22 - Growth in mobile penetration (2005-2008)

Note:
EU-27: The values are for October of the previous year, as reported in the annual EC implementation reports.

The great majority of customers use the prepaid service, rather than the subscription or postpaid service (see Table A.16). In Kosovo nearly all the customers are prepaid, with the second operator only recently launching a postpaid option. Albania has a slightly lower level at almost 94 percent.

The very high levels of pre-paid customers raises questions about the move to broadband and mobile value added services, where a different business model may be necessary.

Country	Prepaid mobile subscribers (%)	Postpaid (monthly paid) mobile subscribers (%)
Croatia	74.79	25.21
FYROM	88.02	11.98
Turkey	80.00	20.00
Albania	93.50	6.47
Bosnia & Herzegovina	89.73	10.27
Montenegro	75.76	24.24
Serbia	79.00	21.00
Kosovo	96.54	3.46

Table A.16 - Mobile subscribers - prepaid and postpaid

Notes:
Montenegro: 871,611 prepaid subscribers; 278,848 postpaid subscribers.
Serbia: Data are based on the number of prepaid subscribers of m:ts and Telenor. VIP data are not available.

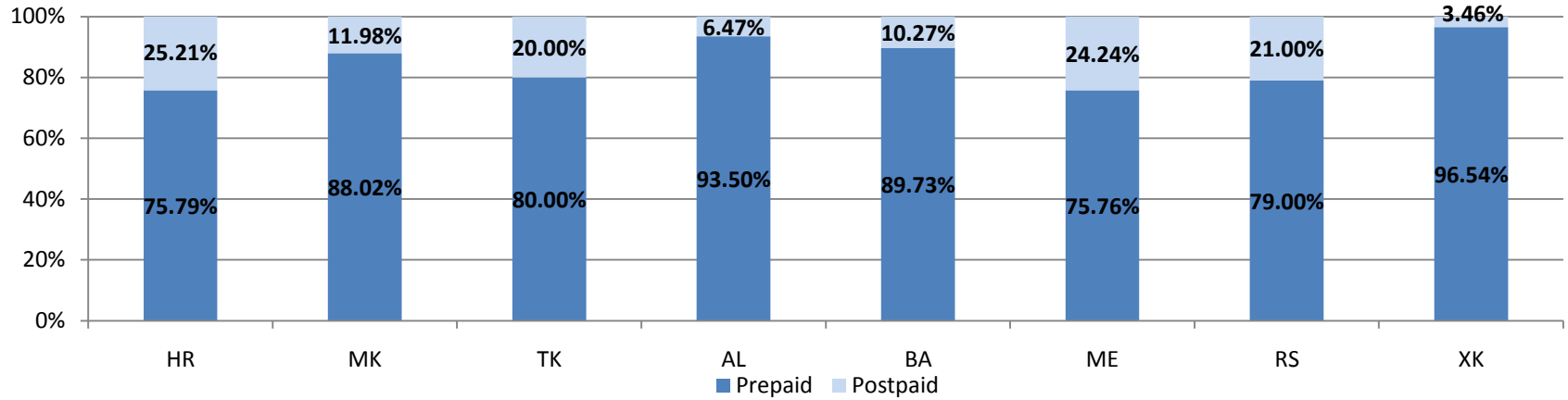


Figure 23 - Mobile subscribers - prepaid and postpaid

b) Licensed mobile operators

With the exception of Kosovo, there are now three network operators licensed to serve each market (see Table A.17). In Croatia, FYROM, Turkey, Bosnia & Herzegovina, Montenegro and Serbia the operators have also been assigned 1.9 and 2.1 GHz bands for use for 3G services.

Country	Operators licensed for provision of public mobile communications services				
	Operator	System/Technology	Spectrum (MHz)	Licence (date of issue)	Date of expiry
Croatia	T-Mobile Hrvatska	GSM	900 & 1800	September 16,1999	September 16, 2009
		UMTS	1900 & 2100	October 18, 2004	October 18, 2024
	VIPnet	GSM	900	July 1, 1999	July 1, 2009
		UMTS	1900 & 2100	October 18, 2004	October 18, 2024
	Tele2	GSM	900 & 1800	December 22, 2004	December 22, 2024
		UMTS	1900 & 2100	December 22, 2004	December 22, 2024
FYROM	T-Mobile	GSM	900	June 5, 2001	2018
		UMTS	1900 & 2100	December 2008	2018
	Cosmofon	GSM	900	November 22, 2001	2023
		UMTS	1900 & 2100	February 2008	2018
	VIP	GSM	900 & 1800	March 26, 2007	2017
Turkey	Turkcell Communications Services	GSM	900	April 27, 1998	2023
		UMTS	1900 & 2100	April 30, 2009	2029
	Vodafone Communications Services	GSM	900	April 27, 1998	2023
		UMTS	1900 & 2100	April 30, 2009	2029
	Avea Communications Services	GSM	1800	January 11, 2001	2026
		UMTS	1900 & 2100	April 30, 2009	2029
Albania	Albanian Mobile Communications	GSM	900 & 1800	August 19,1999	2014
	Vodafone Albania	GSM	900 & 1800	June 9, 2001	2016
	Eagle Mobile	GSM	900 & 1800	March 1, 2004	2019
Bosnia & Herzegovina	BH Telecom (BH Mobile)	GSM	900 & 1800	October 12, 2004	2019
		UMTS	1900 & 2100	March 26, 2009	2024
	Telekom Srpske (M:Tel)	GSM	900 & 1800	October 12, 2004	2019
		UMTS	1900 & 2100	March 26, 2009	2024
	HT Mostar (HT Eronet)	GSM	900 &1800	October 12, 2004	2019
		UMTS	1900 & 2100	March 26, 2009	2024
Montenegro	T-Mobile Montenegro	GSM	900 & 1800	January 1, 2002	2017
		UMTS	1900 & 2100	April 11, 2007	2022
	m:tel	GSM	900 & 1800	April 21, 2007	2022
		UMTS	1900 & 2100	April 21, 2007	2022

Country	Operators licensed for provision of public mobile communications services				
	Operator	System/Technology	Spectrum (MHz)	Licence (date of issue)	Date of expiry
	ProMonte	GSM	900 & 1800	January 1, 2002	2017
		UMTS	1900 & 2100	April 13, 2007	2022
Serbia	m:ts – Mobilna Telefonija Srbije	GSM, UMTS	900 & 1800, 1900 & 2100	July 28, 2006	July 28, 2016
	Telenor	GSM, UMTS	900 & 1800, 1900 & 2100	August 31, 2006	August 31, 2016
	VIP mobile	GSM, UMTS	900 & 1800, 1900 & 2100	December 1, 2007	December 1, 2017
Kosovo	Vala	GSM	900	July 30, 2004	2019
	IPKO	GSM	900 & 1800	March 6, 2007	2022

Table A.17 - Licensed mobile operators

Notes:

FYROM: Frequency authorizations can be extended for another 10 years period upon request. Following a tender procedure for 2 GSM spectrum licences in the 1800 MHz band held by AEC in March 2009, on May 5, 2009 AEC announced T-Mobile the winner. Following the payment by T-Mobile of the offered amount of €2,000,100, the licence for 1730-1740 MHz/1825-1835 MHz will be issued by June 9, 2009, with 10 years validity period.

Turkey: The auction procedure for three 3G/UMTS licences was completed on November 28, 2008, but the concession agreements were signed on April 30, 2009.

Albania: In February 2009 the tender for 4th GSM mobile operator was held by AKEP. In this tender participated Kosovo-based PTK consortium and Universal PG. PTK consortium offered €7.2 million for the licence compared to €5 million offered by Universal PG. Albanian parliament through Law No.10118, dated 23/04/2009 gave the right for using GSM frequencies for 15 years to PTK consortium. This new GSM operator will launch its services within 6 months.

Serbia: All three operators can automatically extend the period of the validity of the licences for additional 10 years.

c) Market shares of mobile operators, by revenue and by subscribers

Measuring market shares for mobile networks is more difficult than for fixed, given the problems with finding accurate and comparable customer data. Table A.18 shows the various market shares at end of 2008, based on subscriber numbers and on revenues. There are considerable variations between the two columns, reflecting different types of customers, for example, high spending business customers and the rural poor. Operators later in entering the market struggle to get a proportionate share of higher spending customers.

Country	Operator	Mobile operators market shares (%)	
		Based on subscribers	Based on revenues
Croatia	T-Mobile Hrvatska	45.75	51.38
	VIPnet	42.29	39.69
	Tele2	11.96	8.94
FYROM	T-mobile	55.13	68.80
	Cosmofon	28.98	26.66
	VIP	15.89	4.53

Country	Operator	Mobile operators market shares (%)	
		Based on subscribers	Based on revenues
Turkey	Turkcell	56.00	65.00
	Vodafone	25.00	20.00
	Avea	19.00	15.00
Albania	Albanian Mobile Communications	47.00	47.50
	Vodafone Albania	44.20	51.40
	Eagle Mobile	8.80	1.10
Bosnia & Herzegovina	BH Telecom (BH Mobile)	43.64	45.74
	Telekom Srpske (m:tel)	35.92	33.57
	HT Mostar (HT Eronet)	20.44	20.69
Montenegro	T-Mobile Montenegro	36.13	N/A
	m:tel	25.66	N/A
	ProMonte	38.21	N/A
Serbia	m:ts – Mobilna Telefonija Srbije	60.59	52.15
	Telenor	29.57	41.83
	VIP mobile	9.44	6.02
Kosovo	Vala	71.74	79.90
	IPKO	28.26	20.10

Table A.18 - Market shares of mobile operators

The level of concentration of a market can be measured in a number of different ways. The Herfindahl-Hirschmann Index (HHI), the sum of the squares of the market shares, is commonly used in assessing concentration in competition law. In any mobile market the value of the HHI will depend on the number of players licensed and operational, thereafter the value reflects to the degree of concentration or market power. In a market with three players with equal market shares the HHI would be $33.33^2 + 33.33^2 + 33.33^2 = 3333$, which is the lowest value possible for all the entities, except Kosovo where the lowest value possible would be 5000.

Figure 24 shows the HHIs for the South East Europe using the operator revenues, where these are available. Only Bosnia & Herzegovina comes close to an even distribution of market shares, with some of the other values relatively high. If, in the medium term, the HHIs do not decline, it would suggest the need to consider measures to increase competition.

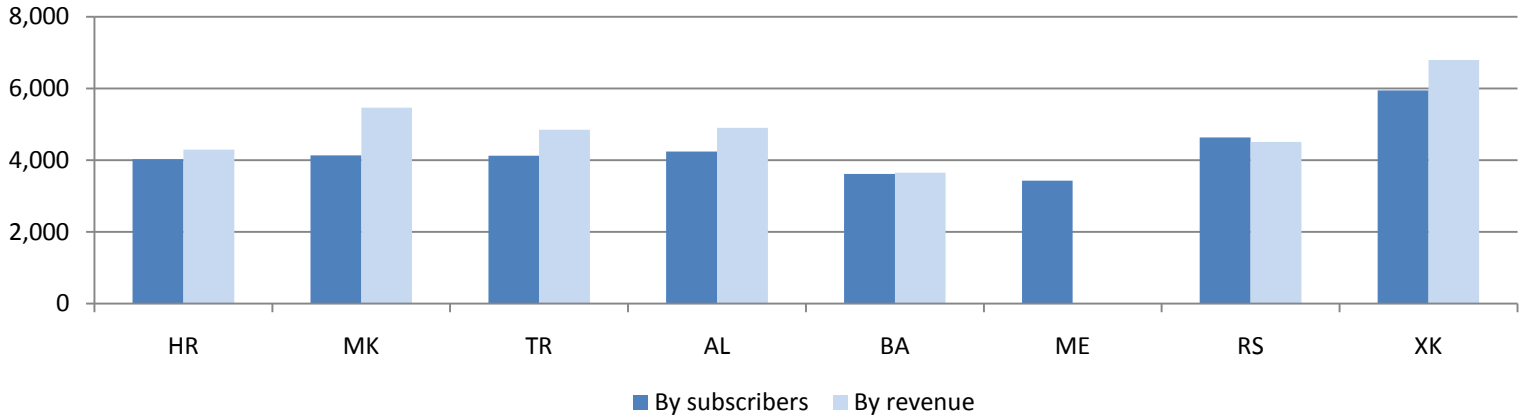


Figure 24 - Mobile market concentration levels, HHI

Table A.19 shows the fees and charges for the 3G/UMTS mobile network licences (that have been granted in all countries, except Albania and Kosovo), including one-off fees, usually decided by auction, and annual fees, typically set as percentages of revenues.

<table>
<tr><th>Country</th><th>Licensees</th><th>One-off fees</th><th>Annual fees</th><th>Deadline for service launch</th><th>Coverage and roll-out obligations</th></tr>
<tr><td rowspan="2">Croatia</td><td>October 2004:
• T- Mobile Hrvatska
• VIPnet</td><td>HRK 132m (€17.6m)</td><td>Spectrum fee of HRK 5m (€670,000) for 5 MHz frequency block
1% of UMTS service revenue</td><td>June 2005</td><td>• 25% of population within two years
• 50% of population within five years</td></tr>
<tr><td>December 2004:
Tele2</td><td>HRK 172m (€22.9m) for a combined 2G/3G concession</td><td>Spectrum fee of HRK 5m (€670,000) for 5 MHz frequency block
1% revenue from UMTS service</td><td>August 2005</td><td><table><tr><th>year</th><th>population</th><th>territory</th></tr><tr><td>1</td><td>14%</td><td>1%</td></tr><tr><td>2</td><td>33%</td><td>7%</td></tr><tr><td>3</td><td>50%</td><td>19%</td></tr><tr><td>4</td><td>65%</td><td>36%</td></tr><tr><td>5</td><td>71%</td><td>51%</td></tr></table></td></tr>
<tr><td>FYROM</td><td>• February 11, 2008: Cosmofon
• December 2008: T-Mobile</td><td>• €10,050,000
• €10,000,100</td><td>€21,000 per 1 MHz</td><td>• August 2008
• June 2009</td><td>Same for both operators:
• 50% of population within one year
• 80% of population within three years</td></tr>
</table>

<table>
<tr><th>Country</th><th>Licensees</th><th>One-off fees</th><th>Annual fees</th><th>Deadline for service launch</th><th>Coverage and roll-out obligations</th></tr>
<tr><td>Turkey</td><td>April 30, 2009:
• Turkcell (40 MHz)
• Vodafone (35 MHz)
• Avea (30 MHz)</td><td>Offered in auction procedure:
• €358 m +VAT
• €250 m +VAT
• €214 m +VAT</td><td>0.35% of annual revenue</td><td>July 30, 2009</td><td><table><tr><th>year</th><th>coverage</th></tr><tr><td>3</td><td>metropolitan cities</td></tr><tr><td>6</td><td>all cities and counties</td></tr><tr><td>8</td><td>all residential areas of over 5000 inhabitants</td></tr><tr><td>10</td><td>all residential areas of over 1000 inhabitants</td></tr></table></td></tr>
<tr><td>Albania</td><td>No UMTS licences</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Bosnia & Herzegovina</td><td>March 26, 2009:
• BH Mobile
• M:tel
• HT Eronet</td><td>€15m to be paid over 7 years after 2 years of grace period, i.e. €3m per year within 5 years</td><td>BAM 10,000 (€5,000) per one 200 kHz channel
Each operator granted 35 MHz block (2x15 MHz + 5 MHz)</td><td>None</td><td>• 25% of population within 3 years (by April 1, 2012)
• 50% of population within 5 years (by April 1, 2014)
Coverage obligations apply to voice and data services, with minimum speed (indoors) 128 kbps downlink and 64 kbps uplink.</td></tr>
<tr><td rowspan="3">Montenegro</td><td>April 13, 2007:
Promonte</td><td>€4.01m (offered in public tender procedure)</td><td>1% of annual revenue</td><td>July 1, 2007</td><td>By the end of each successive year: 40.0%, 60.0%, 75.0%, 87.0% and 97.0% of the population.</td></tr>
<tr><td>April 11, 2007:
T-Mobile Montenegro</td><td>€2.4m (offered in public tender procedure)</td><td>1% of annual revenue</td><td>November 1, 2007</td><td>By the end of each successive year: 11.0%, 20.0%, 28.0%, 37.0%, 53.0% of the population.</td></tr>
<tr><td>April 21, 2007:
M:tel</td><td>€16m for combined GSM 900/1800 and UMTS licence (offered in public tender procedure)</td><td>1% of annual revenue</td><td>July 1, 2007</td><td>GSM - by the end of each successive year: 95.9%, 98.8%, 99.2%, 99.4% and 99.5% of the population.
UMTS - by the end of each successive year: 75.2%, 80.5%, 83.9%, 86.3% and 89.1% of the population.</td></tr>
<tr><td rowspan="3">Serbia</td><td>July 2006:
MTS</td><td>MTS: €0 (replacement of the previously issued licence)</td><td>• RSD 80m (€1m) for 2007
• 0.9% of annual revenue thereafter</td><td>January 2007</td><td>• 25% of population within 24 months
• 60% of population within 36 months</td></tr>
<tr><td>August 2006:
Telenor</td><td>€1.54bn for a combined 2G/3G licence (with operations of former Mobi 063)</td><td>• RSD 55m (€720,000) for 2007
• 0.9% of annual revenue thereafter</td><td>February 2007</td><td>• 25% of population within 24 months
• 60% of population within 36 months</td></tr>
<tr><td>December 2007:
VIP mobile</td><td>€320m for a combined 2G/3G licence</td><td>0.9% of annual revenue, starting from 2008</td><td>May 2008</td><td>• 25% of population within 24 months
• 60% of population within 36 months</td></tr>
</table>

Country	Licensees	One-off fees	Annual fees	Deadline for service launch	Coverage and roll-out obligations
Kosovo	No UMTS licences	-	-	-	-

Table A.19 - Mobile operators licensed to offer 3G/UMTS services

Notes:

FYROM: T-Mobile was the only bidder in the tender procedure for 3 licences launched by AEC on Sept. 15, 2008. On Dec. 17, 2008 one licence was issued to T-Mobile after it paid the offered one-off fee. On Jan. 22, 2009 AEC re-launched the tender procedure for the two remaining licences. Bids were invited within 40 days from the publication. No official announcement was made by AEC on the tender results.

Turkey: The auction procedure for three 3G/UMTS licences was completed on November 28, 2008, but the licences were awarded on April 30, 2009.

BiH: On March 26, 2009 RAK issued three 3G/UMTS licences to the three existing mobile operators without any tender procedure.

Montenegro: The first year of the coverage commitments started on the date of the licence entry into force. One-off fees were determined by public tender procedure, minimum set by the Ministry of Maritime affairs, Transportation and Telecommunications was €2,000,000 for 3G and €6,000,000 for 2G/3G.

8. Internet and broadband

a) Fixed broadband access

The division between broadband and narrowband fixed Internet connections is shown in Table A.20. In line with EC practice in recent Implementation Reports and statistics, broadband capacity is defined as equal to, or more than, 144 kbit/s.

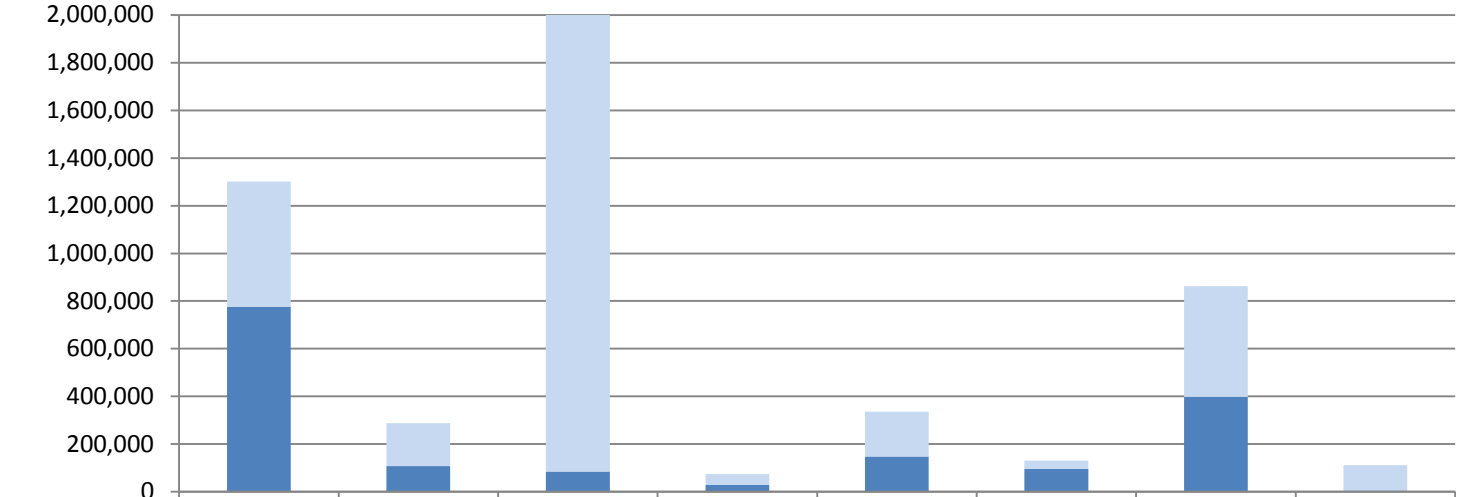
Dial-up is still predominant in Croatia and Montenegro. FYROM, Bosnia & Herzegovina and Serbia have a majority of broadband, but also retain significant numbers of dial-up lines. Turkey and has very few dial-up customers, possibly in areas where broadband is not accessible.

Country	Total number of fixed Internet connections	
	Narrowband (dial-up) connections	Broadband connections (all technologies)
Croatia	777,000	524,683
FYROM	107,420	180,836
Turkey	84,310	5,754,621
Albania	28,512	45,903
Bosnia & Herzegovina	147,703	188,460
Montenegro	95,777	34,431
Serbia	397,202	464,535
Kosovo	600	110,897

Table A.20 - Total number of fixed Internet connections

Notes:

Bosnia & Herzegovina: 62 ISPs have delivered information. The reference date is January 1, 2009.



	HR	MK	TK	AL	BA	ME	RS	XK
Broadband	524,683	180,836	5,754,621	45,903	188,460	34,431	464,535	110,897
Narrowband	777,000	107,420	84,310	28,512	147,703	95,777	397,202	600

Figure 25 - Number of fixed Internet connections

Table A.21 shows the number of ISPs active on the market. Although some of these numbers appear impressive, the market shares held by the incumbent operator, where available, suggest that these ISPs are not having an easy time. However, in several countries the majority of the market is controlled by the incumbent operators or (in particular in FYROM) the incumbent holds the higher spending customers.

Country	Total number of ISPs	Incumbent ISP's retail market share	
		By revenue	By number of connections
Croatia	43	74.77%	84.34%
FYROM	47	45.22%	11.95%
Turkey	86	85.02%	94.00%
Albania	32	N/A	54.20%
Bosnia & Herzegovina	66	74.17%	63.16%
Montenegro	6	N/A	N/A

Country	Total number of ISPs	Incumbent ISP's retail market share	
		By revenue	By number of connections
Serbia	159	N/A	9.8%
Kosovo	9	N/A	18%

Table A.21 - Internet users and connections - ISPs

Notes:
FYROM: The number of companies which have submitted a notification to the NRA stating that they would provide data communications networks/services.
Montenegro: Out of 13 licensed ISPs, only six provide Internet services at this moment: T-Com Montenegro, MontSky, Mina Infomont, T-Mobile, ProMonte and M-Tel.

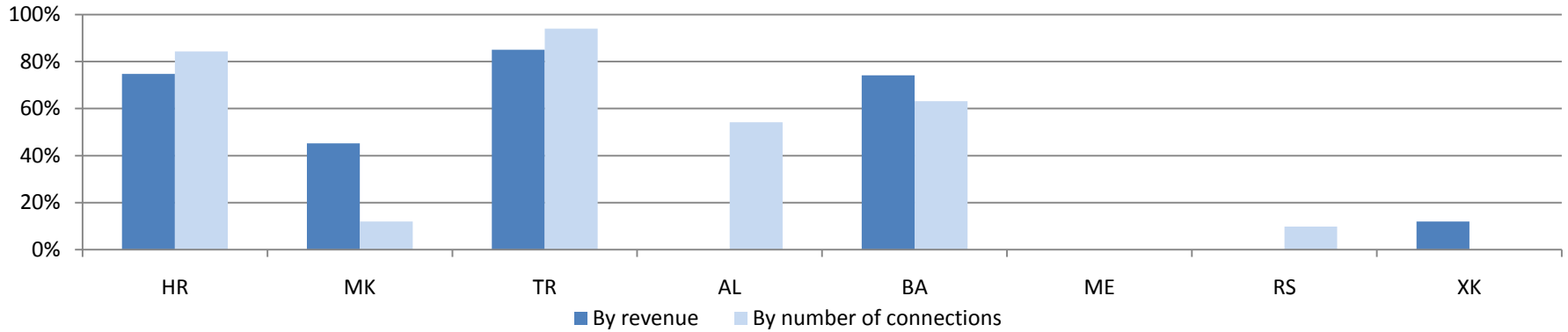


Figure 26 - Incumbent ISP's market share

The following section provides information on the deployment of fixed broadband access lines by incumbent operators and their subsidiaries or partners and by new entrants (alternative telecommunication operators or ISPs) to end-users (see Table A.22). Mobile broadband connections, including UMTS and HSDPA cellular wireless data communications, are covered in a separate section.

Country	Operator	Total number of broadband connections (all technologies)	xDSL connections	Cable modem	Leased lines	FTTx	FWA	Other
Croatia	Incumbent	442,539	442,005	-	534	-	-	-
	Alternative operators	82,144	54,117	20,158	4,563	-	3,306	-
FYROM	Incumbent	99,991	98,862		1,129	-	-	-
	Alternative operators	80,845	18,259	47,479	133	-	14,974	-

Country	Operator	Total number of broadband connections (all technologies)	xDSL connections	Cable modem	Leased lines	FTTx	FWA	Other
Turkey	Incumbent	5,347,913	5,340,702	-	7,211	-	-	-
	Alternative operators	406,708	332,558	67,408		-	-	6,742
Albania	Incumbent	25,759	25,000	-	759	-	-	-
	Alternative operators	20,144	20,000	-	144	-	-	-
Bosnia & Herzegovina	Incumbent	97,825	97,225	-	588	12	-	-
	Alternative operators	90,635	6,998	46,223	502	43	36,869	-
Montenegro	Incumbent	27,839	27,839	-	188	-	45	-
	Alternative operators	6,592	-	-	-	-	6,592	-
Serbia	Incumbent	166,139	164,175	-	407	-	970	587
	Alternative operators	298,396	103,701	138,850	6,266	-	45,507	4,072
Kosovo	Incumbent	20,050	20,000		50	-	-	-
	Alternative operators	90,847	-	90,847	-	-	-	-

Table A.22 - Number of fixed broadband connections with breakdown by operator and technology

Note:
FTTx: This includes Fibre To The Curb (FTTC), Fibre To The Home (FTTH), Fibre To The Premises (FTTP), etc.

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 2009 was 22.90%. The weighted average broadband penetration rate for eight countries was 7.74%. The highest broadband penetration level was observed in Croatia (11.80%), above the level of Romania and Bulgaria that joined the EU in 2007.

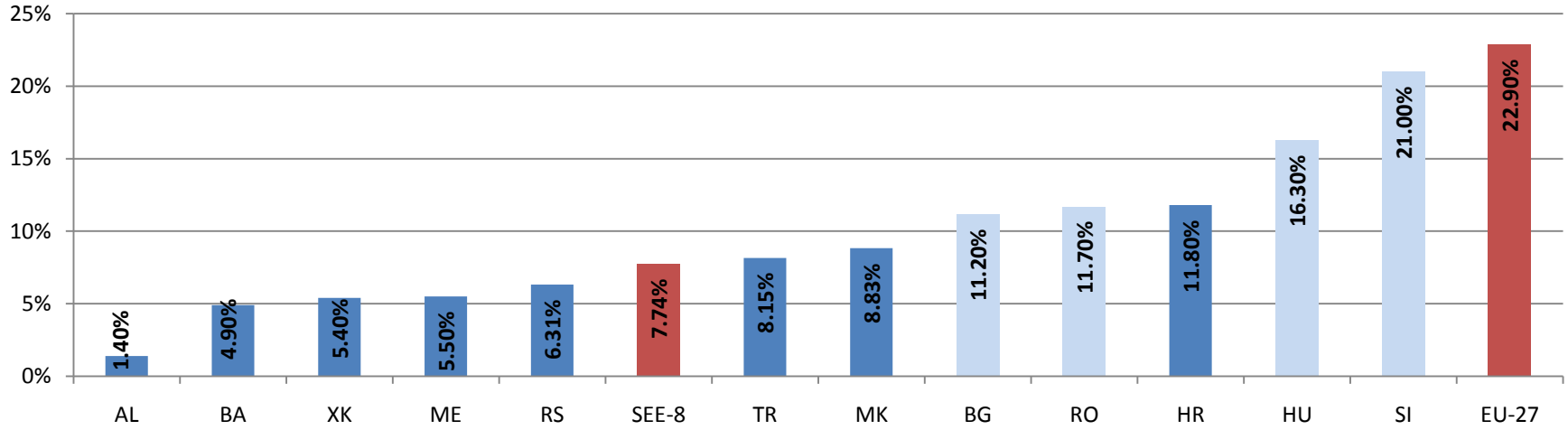


Figure 27 - Broadband penetration rate, January 2009

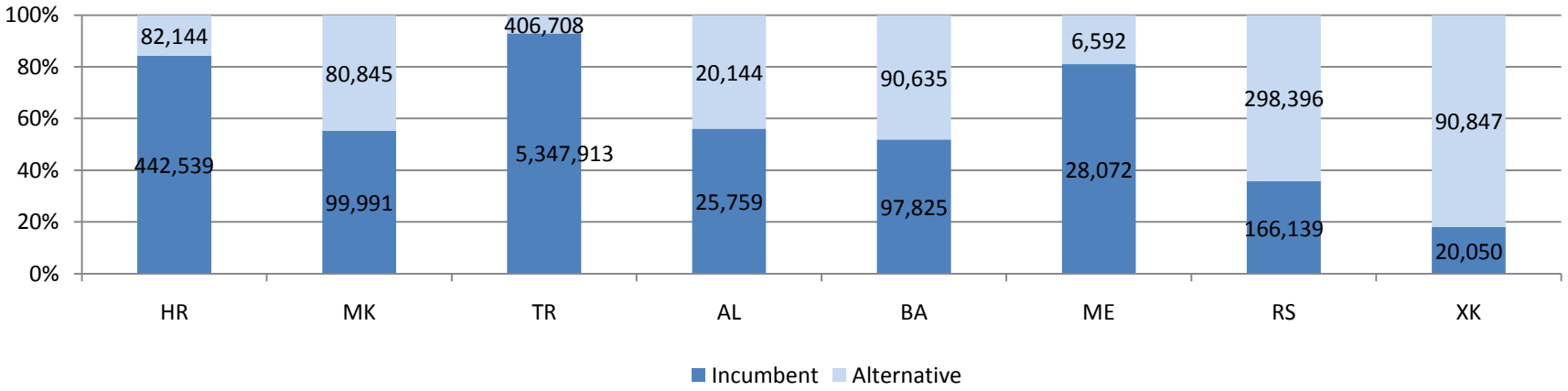


Figure 28 - Fixed retail broadband connections by incumbent and alternative operators

Broadband retail markets are dominated by fixed incumbent operators in most of the countries, where xDSL is the main access technology. Exceptions are Serbia and Kosovo. In Serbia, competitors are mainly using wholesale xDSL broadband access from the incumbent operator and cable infrastructure. In

Kosovo, broadband connections provided over cable infrastructures of alternative operators by far exceed the number of xDSL connections from the incumbent operator. Cable broadband also presents a strong competitive alternative in Bosnia & Herzegovina and in FYROM.

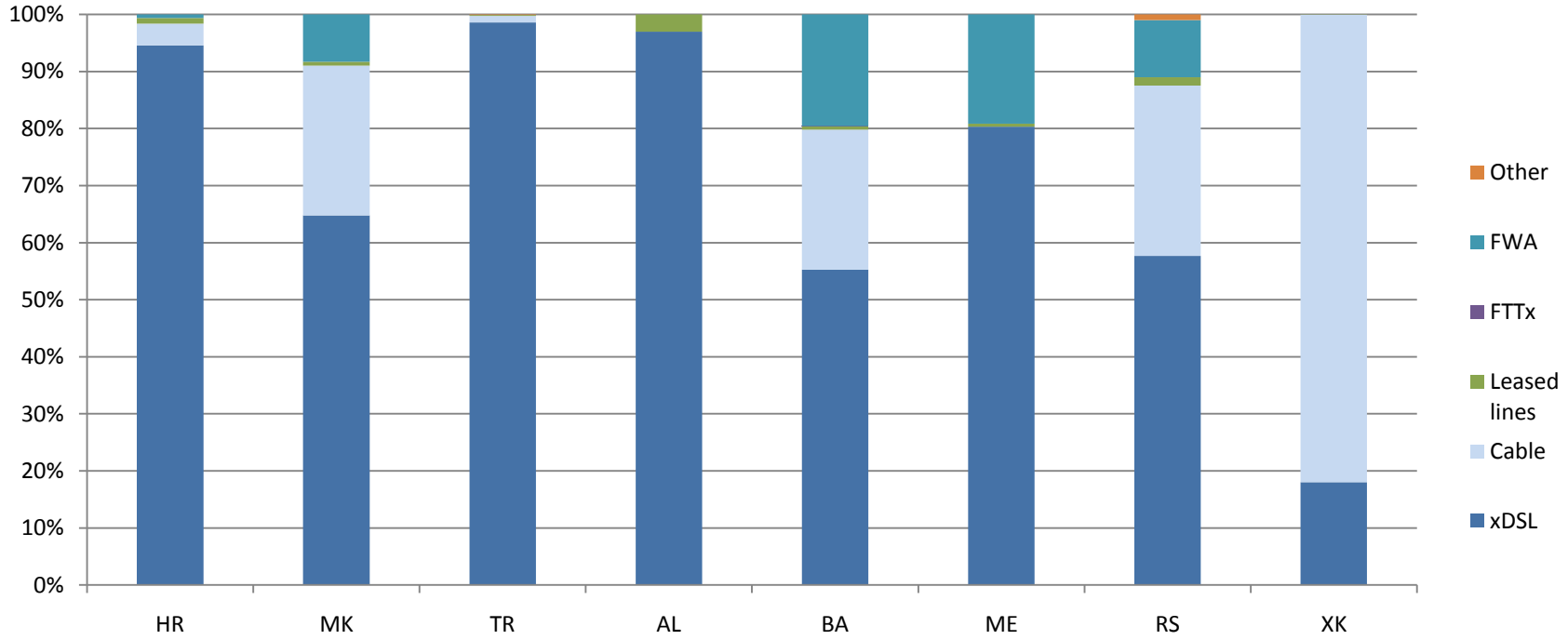


Figure 29 - Fixed retail broadband connections by technology

Table A.23 shows the retail DSL lines supplied by the incumbent operator and by alternative operators. The lines from alternative operators are broken down by those supplied using one of three types of wholesale offer from the incumbent operator and those delivered on their own networks.

In most of the 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 61% 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 44% of the retail xDSL broadband connections supplied over their own infrastructures.

Country	Incumbent operator's retail xDSL lines	Retail xDSL lines by alternative operators	Breakdown of alternative operators' xDSL lines by the type of access				
			Full LLU access	Shared access	Bitstream access	Resale	Own network
Croatia	442,005	54,117	35,559	1,252	16,272		1,034
FYROM	98,862	18,259	2,117			16,045	97
Turkey	5,340,702	332,558	23	7,842	281,288	43,405	
Albania	25,000	20,000					20,000
Bosnia & Herzegovina	97,225	6,998					6,998
Montenegro	27,839						
Serbia	164,175	103,701	-	-	103,701	-	-
Kosovo	20,000						

Table A.23 - Competition in retail xDSL

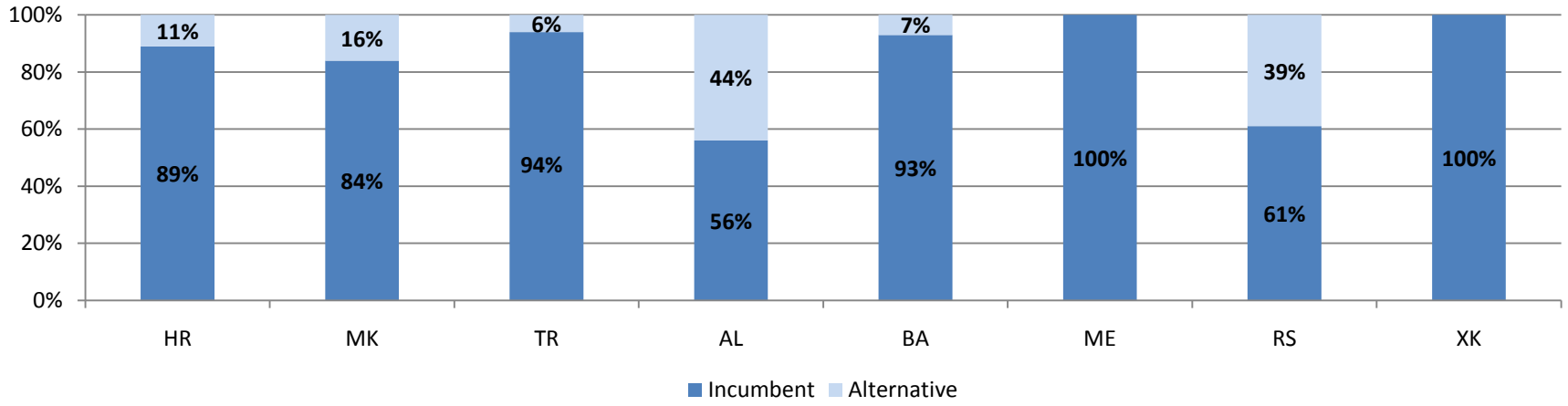


Figure 30 - Competition in retail xDSL

The figure below shows the level of competition in xDSL broadband in Croatia, FYROM, Serbia and Turkey with the type of wholesale access offers used by the alternative operators. These are the four countries where there is an emerging competition in the provision of retail xDSL services on the basis of wholesale offers from the incumbent operators.

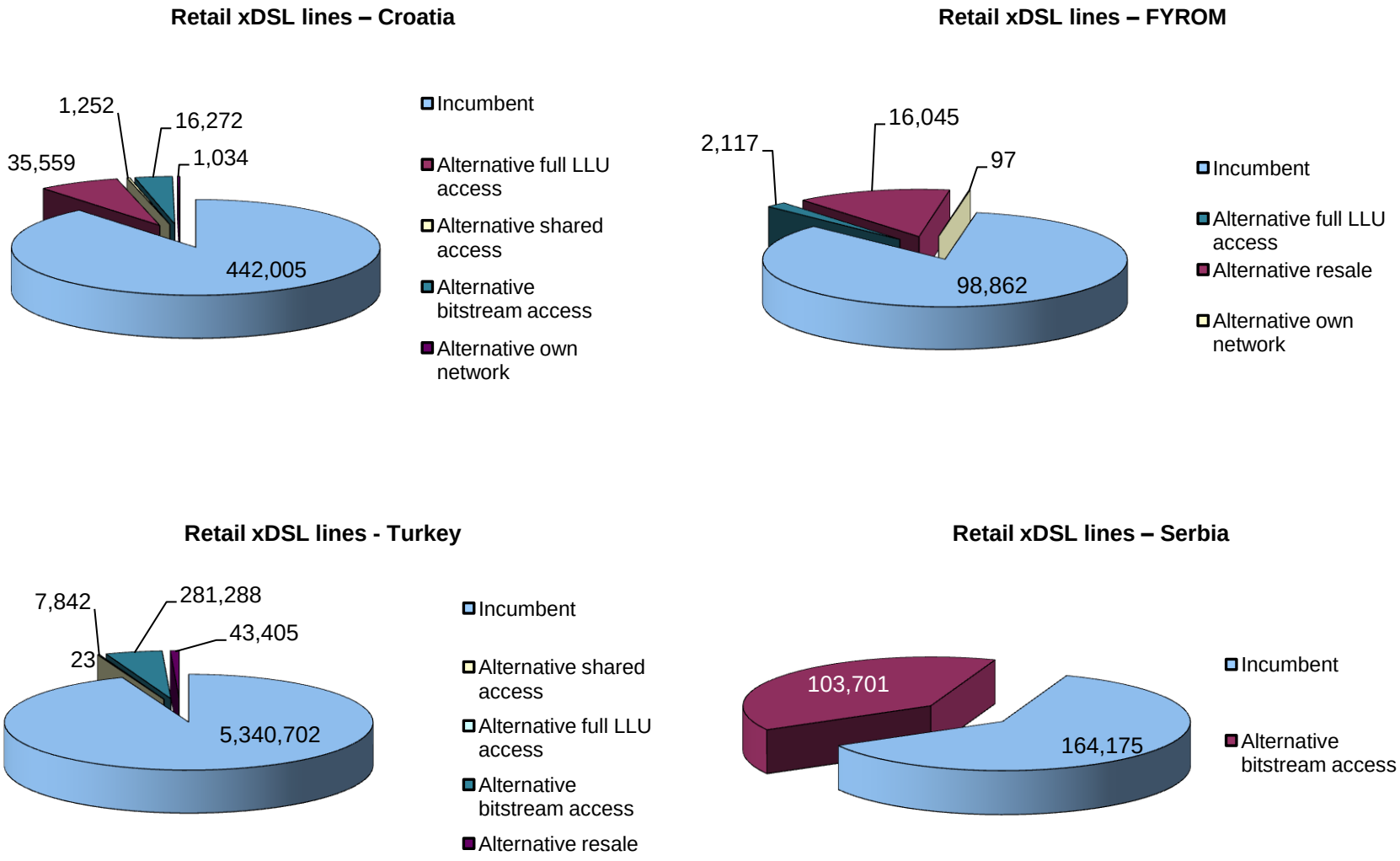


Figure 31 - Competition in retail xDSL in Croatia, FYROM, Serbia and Turkey

Table A.24 shows the highest speeds available for broadband Internet access. Croatia is much the fastest, with offers of 16 Megabits per second to the customer on both DSL and cable, though with non-incumbent operators lagging significantly behind the incumbent operator.

Country	Incumbent operator over DSL		Largest alternative operator over DSL		Cable operator		FWA operator		FTTH operator	
	downstream	upstream	downstream	upstream	downstream	upstream	downstream	upstream	downstream	upstream
Croatia	20 Mbps	768 kbps	6 Mbps	640 kbps	16 Mbps	1 Mbps	3 Mbps	512 kbps	N/A	N/A
FYROM	10 Mbps	768 kbps	2 Mbps	512 kbps	4 Mbps	512 kbps	1.5 Mbps	384 kbps	N/A	N/A
Turkey	32 Mbps	1 Mbps	4 Mbps	1 Mbps	20 Mbps	1 Mbps	N/A	N/A	N/A	N/A
Albania	2 Mbps	512 kbps	1 Mbps	192 kbps	N/A	N/A	N/A	N/A	N/A	N/A
Bosnia & Herzegovina	4 Mbps	384 kbps	8 Mbps	512 kbps	4 Mbps	384 kbps	4 Mbps	384 kbps	N/A	N/A
Montenegro	6 Mbps	256 kbps	N/A	N/A	N/A	N/A	2 Mbps	256 kbps	N/A	N/A
Serbia	16 Mbps	768 kbps	4 Mbps	384 kbps	4 Mbps	384 kbps	N/A	N/A	N/A	N/A
Kosovo	4 Mbps	512 kbps	N/A	N/A	5 Mbps	512 kbps	N/A	N/A	N/A	N/A

Table A.24 - Fastest advertised retail broadband connection

Notes:
FYROM: The providers are, from left to right: Makedonski Telekom, On.Net, Cabletel and Wi-Fi On.Net.

The OECD published data on speeds available from operators across its thirty members for October 2007 (see Figure 32).[22] In order to make the figure readable, the value of 1 Gigabit per second, the fastest incumbent speed in Japan, has been excluded.

[22] http://www.oecd.org/sti/ict/broadband

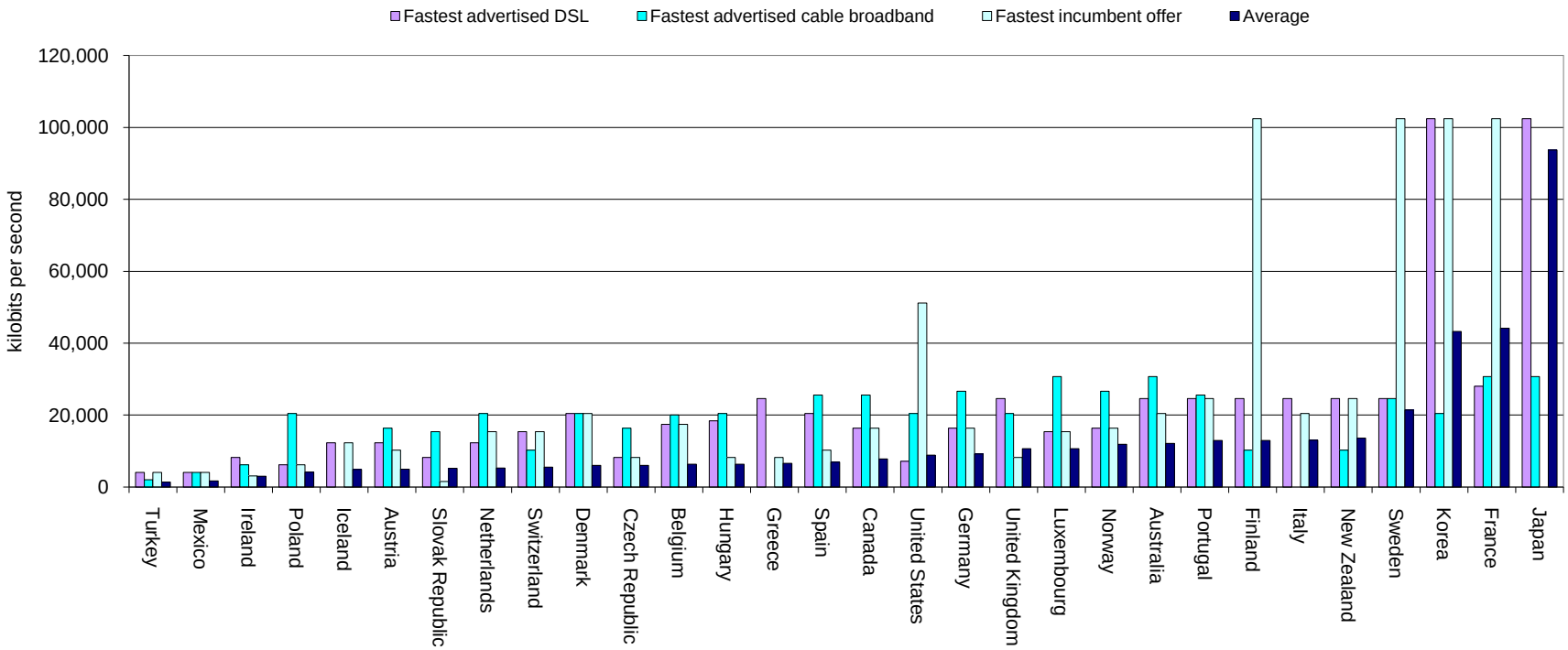


Figure 32 - Average and fastest broadband speeds in the OECD

Turkey has the slowest average speed in the OECD. By comparison, Croatia would be in the middle of the OECD range for DSL, while Serbia would be at the bottom, alongside Slovakia. However, the cable modem speeds are all at the slower end of the range, with 20-30 Megabits per second being typical top speeds.

b) Mobile broadband

As noted in Table A.17 a significant number of assignments of 3G licences have been made. Spectrum licences for provision of 3G/UMTS services have been issued in Croatia, FYROM, Turkey, Bosnia & Herzegovina, Montenegro and Serbia.

Croatia has already achieved a significant number of 865.000 UMTS subscribers from the three mobile operators, of which 158,500 are active users of dedicated data cards and keys (3.6% penetration). Serbia reported over 763,000 UMTS subscribers using services of the three mobile operators at the end of 2008, of which 25,000 were active 3G mobile broadband users. In FYROM, Cosmofon has launched commercial UMTS services in August 2008. The information about the number of active UMTS subscribers in Montenegro is not available.

c) Broadband wireless access (BWA) – licences

Table A.25 shows the status of BWA spectrum licensing (also referred to as wireless local loop). The table does not include Wi-Fi networks operated in the 2.4 GHz and 5 GHz frequency bands.

Country	Frequency bands	Status and number of licences National/Regional	Size of the spectrum block	Licence duration period	Restrictions on operators applying for BWA licences
Croatia	3.4-3.6 GHz	58 regional licences issued by March 2009. Four operators, Novi Net, WiMAX Telecom, OT-Optima Telekom, Odašiljači i veze have launched commercial WiMAX services.	2 x 21 MHz or 2 x 14 MHz per licence In each region, 3 blocks of 2 x 21 MHz and 1 block of 2 x 14 MHz.	8 years	No
FYROM	3.4-3.6 GHz	20 frequency authorisations for BWA spectrum: 2 national and 18 regional (3 authorisations per each of 6 regions)	2 x 14 MHz per each frequency authorisation	10 years	Restricted to fixed services (FWA)
Turkey	-	No FWA license issued.	-	-	-
Albania	-	No FWA license issued. Some preparatory work has been carried out by AKEP, but no decision on licensing has been taken.	-	-	-
Bosnia & Herzegovina	-	Spectrum in the 3.5 GHz band is currently occupied by broadcasting services. RAK is considering to issue BWA licences in the 2.6 GHz band.	-	-	-
Montenegro	3.4-3.8 GHz	3 national licences in the 3.4-3.6 GHz issued in April 2007. Two blocks of 2 x 14 MHz are still available. 1 national licence in the 3.6-3.8 GHz issued in October 2007	2 blocks of 2 x 21 MHz and 1 block of 2 x 14 MHz (in the 3.4-3.6 GHz) 2 x 21 MHz (in the 3.6-3.8 GHz)	5 years	No
Serbia	3.4-3.8 GHz	No FWA license issued. Licensing process has been postponed. The available spectrum blocks are defined in Official Gazette No. 17 of Feb. 13, 2008.	Proposed: 3 blocks of 2 x 21 MHz and 1 block of 2 x 24.5 MHz (in the 3.4-3.6 GHz) 4 blocks of 2 x 21 MHz and 1 block of 2 x 14 MHz (in the 3.6-3.8 GHz)	-	-
	450 MHz	On March 31, 2009 RATEL announced an auction procedure for two national FWA licences in the 411.875-418.125/421.875-428.125 MHz band. The minimum one-off fee is set at €500,000. On May 19, 2009 RATEL announced Telekom Srbija and Media Works the winners who offered to pay €540,000 per licence.	2 blocks of 2 x 3.5 MHz Available spectrum covers 411.875-418.125 MHz/421.875-428.125 MHz	10 years	Restricted to fixed services (FWA) including voice and data transmission
Kosovo	3.4-3.6 GHz	No FWA license issued. Between March 5 and April 5, 2008, TRA consulted on a national strategy for implementing FWA.	Proposed: 4 blocks of 2 x 21 MHz	-	-

Table A.25 - Broadband wireless access (BWA) – licences

d) Public Wireless Local Area Networks (WLAN)

Country	Full frequency bands available		Licensing requirements for provision of access to public network
	2.4 GHz	5 GHz	
Croatia	Yes	Yes	General authorisation with notification to the NRA
FYROM	Yes	Yes	General authorisation with notification to the NRA
Turkey	Yes	Yes	General authorisation for provision of Internet services
Albania	Yes	Yes	General authorisation with notification to the NRA
Bosnia & Herzegovina	Yes	No	General (class) licence for provision of Internet services
Montenegro	Yes	Yes	General authorisation without notification
Serbia	Yes	Yes	General authorisation without notification
Kosovo	Yes	No	Individual licence

Table A.26 - Public Wireless Local Area Networks (WLAN/WiFi)

9. Control of major operators by foreign investors

This table shows which key foreign strategic investors have a controlling interest in fixed and mobile operators, and ISPs.

Country	Investor	Operators		
		Fixed	Mobile	ISP
Croatia	Deutsche Telekom	HT- Hrvatske Telekomunikacije - 51%	T-Mobile Hrvatska – 51% (100% owned by HT)	HT- Hrvatske Telekomunikacije - 51% Iskon – 51% (100% owned by HT)
	Tele2 Sweden	-	Tele2 – 93%	-
	Telekom Austria/Mobilkom	VIPNet – 100%	VIPNet – 100%	VIPNet – 100%
FYROM	Deutsche Telekom	Makedonski Telekom – 33.60% (56.67% owned by Magyar Telekom)	T-Mobile – 33.60% (100% owned by Makedonski Telekom)	Makedonski Telekom – 33.60%
	Cosmote (OTE)			
	Telekom Austria/Mobilkom		VIP – 100%	
	Telekom Slovenije	On.Net – 83.38%	Cosmofon – 100%	On.Net – 83.38%
	Akton Slovenia	Akton – 100%		
	Nexcom Telecommunications LLC USA	Nexcom Macedonia – 100%		

Country	Investor	Operators		
		Fixed	Mobile	ISP
Turkey	Oger Telecom	Türk Telekomünikasyon - 55%	Avea – 44.55% (81% owned by Türk Telekom)	TT Net - 55% (100% owned by Türk Telekom)
	TeliaSonera		Türkcell – 37%	
	Vodafone Group		Vodafone – 100%	
Albania	Cosmote (OTE)		AMC – 95%	
	Vodafone Group		Vodafone Albania - 100%	
	Calik Enerji Telecommunications (consortium of Calik Enerji and Turk Telecom)	Albtelecom – 76%	Eagle Mobile - 76%	
	Telecom Slovenije	Albania Online (AOL) - 75%		Albania Online (AOL) - 75% Albanian Fibre Backbone (AFB) - 66% (through AOL)
Bosnia & Herzegovina	Telekom Srbije	Telekom Srpske - 65%	m:tel – 65% (100% owned by Telekom Srpske)	Teol – 65% (100% owned by Telekom Srpske)
	HT- Hrvatske Telekomunikacije (Croatia)	HT Mostar - 39.1%	HT Eronet - 44.33% (51% owned by HT Mostar)	HT Net (100% owned by HT Mostar)
	Telecom Slovenije			Aneks – 100%
Montenegro	Deutsche Telekom	T-Com Montenegro – 45.53% (76.53% owned by Magyar Telecom)	T-Mobile Montenegro – 45.53% (76.53% owned by Magyar Telecom)	T-Com Montenegro – 45.53% (76.53% owned by Magyar Telecom)
	Telenor		ProMonte - 100%	
	Telekom Srbije		m:tel - 51%	
Serbia	OTE	Telekom Srbija - 20%	m:ts - 20% (100% owned by Telekom Srbija)	Telekom Srbija - 20%
	Telenor		Telenor - 100%	
	Telekom Austria/Mobilkom		VIPmobile - 100%	
Kosovo	Telekom Slovenije/Mobitel	IPKO - 75%	IPKO - 75%	IPKO - 75%

Table A.27 - Control of major undertakings by foreign investors

Notes:

FYROM: On October 16, 2008 the Macedonian Commission for Protection of Competition approved the acquisition of the controlling stake in the Greek incumbent operator, OTE, by Deutsche Telekom subject to the condition that OTE would have to sell its Macedonian subsidiary, Cosmofon. The condition was imposed to prevent the distortion of the effective competition on the market, because after the transaction Deutsche Telekom group would control the two largest mobile operators in Macedonia, T-Mobile and Cosmofon. The deadline set by OTE for Cosmofon offers is March 15, 2009. Three companies - Telekom Slovenije, Turk Telekom and Turkcell submitted their offers. On March 30, 2009 OTE agreed to sell Cosmofon to Telekom Slovenije for €190 million. In April 2009 the Commission for Protection of Competition officially approved the sale.

10. Key financial ratios of the fixed incumbent operators

The most commonly used financial ratios in the assessment of the performance of telecommunications operators are:

- Return on Capital Employed (ROCE) - the net profit before interest and taxes divided by the total capital employed;
- Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA) margin - EBITDA divided by operating revenues; and
- Earnings Before Interest and Taxes (EBIT) margin – the EBIT divided by operating revenues.

Return on Capital Employed (ROCE) is a measure of the returns that an operator realises from the capital it uses. The ratio can represents the efficiency with which capital is being used to produce revenue. ROCE is used both to compare the performance of different businesses and to assess whether a business generates sufficient returns to pay for its cost of capital.

ROCE compares earnings with capital invested in the company, taking into account sources of financing. Net assets or capital employed are examined rather than total assets. Capital employed can have many definitions, though, in general, it is the capital investment necessary for a business to function. It is commonly represented as the total assets less the current liabilities or fixed assets plus working capital. The main drawback is that it measures return against the book value of assets. As these are depreciated, ROCE will increase even though cash flow has remained the same. Thus, older businesses with depreciated assets will tend to have higher ROCE than newer, possibly better businesses. In addition, while cash flow is affected by inflation, the book value of assets is not. Consequently, revenues increase with inflation while capital employed generally does not (as the book value of assets is not affected by inflation).

The net income of a company is affected by decisions that the company made in previous years. This is because of the differences between accrual accounting and cash-based accounting. Some purchases can be depreciated or amortized over 20 years or more, with a negative impact on the net income long after the actual financial effects of the purchases have ceased.

The use of Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA) does not suffer from this distortion, allowing investors a better understanding of the profitability of the company. Depreciation and amortization are non-cash charges, so that EBITDA is seen as a better proxy than earnings from the cash that flows through a company. Essentially, EBITDA measures the core income that a company earns before it covers its debt payments and pays its income taxes. Investors can also use this measure to compare the profit growth of companies that operate in different tax regimes. EBITDA can also assist lenders when estimating the cash flows that a company will have available to service its debt as it measures the amount of cash that a company has available for interest payments. Finally, EBITDA can provide a more accurate cash flow picture in industries where substantial non-cash depreciation and amortisation expenses might otherwise distort earnings.

Earnings before interest and taxes (EBIT), also known as operating income and operating profit, is a term used to describe a company's earnings. To calculate EBIT, basic expenses (e.g., the cost of goods sold, selling and administrative expenses) are subtracted from revenues. Profit is later obtained by subtracting interest and taxes from the result.

Country	Fixed incumbent operator	Key financial ratios and performance indicators for 2007				
		ROCE	EBITDA margin in %	EBIT margin in %	Average number of employees	Number of fixed lines per employee
Croatia	HT- Hrvatske Telekomunikacije	12.4%	42.2%	21.1%	5,485	293
FYROM	Makedonski Telekom	9.8%	32.8%	13.8%	1,466	315

Country	Fixed incumbent operator	Key financial ratios and performance indicators for 2007				
		ROCE	EBITDA margin in %	EBIT margin in %	Average number of employees	Number of fixed lines per employee
Turkey	Türk Telekomünikasyon	42.0%	45.0%	27.0%	29,769	492
Albania	Albtelecom	- 5.4%	29.8%	-6.9%	2,243	116
Bosnia & Herzegovina	BH Telecom	10.1%	57.6%	42.5%	2,250	250
	Telekom Srpske	13.0%	44.0%	24.0%	2,163	142
	HT Mostar	8.0%	61.0%	11.0%	837	152
Montenegro	T-Com Montenegro	14.0%	41%	29%	706	250
Serbia	Telekom Srbija	0.1%	39.8%	20.4%	9,962	300
Kosovo	PTK	23.0%	19.6%	7.0%	2,480	37

Table A.28 - Key financial ratios of the fixed incumbent operators

The number of fixed lines per employee has long been used as an indicator by the ITU and OECD, as a proxy for the efficiency of a telecommunications operator, on the assumption that the more fixed lines per employee the more efficient the operator. The problem of calculation and interpretation of these numbers has grown in recent years, where it is important to understand how employees are attributed across different parts of the business. Equally, with activities devolved to or purchased from manufacturers, business process outsourcers, call centres and the like, many of those performing roles for the operator may not be employees. Consequently, great care has to be taken in comparing operators or examining historical trends.

B. National regulatory authorities

This section examines the effectiveness of the institutional framework and environment. The specific issues covered are not only concerned with the NRA, but also address other relevant institutional actors such as the legislative and policy-making bodies, national competition and broadcasting authorities (if different from the NRA) and the national appeal systems. In relation to the NRA, this section seeks to cover the issues associated with the standards of good governance such as independence, accountability, transparency, participation and effectiveness. Additionally, this section also addresses other relevant institutional actors such as the legislative and policy making bodies, national competition and broadcasting authorities.

1. NRA independence

The establishment of an independent regulatory authority is a cornerstone of the EU regulatory framework for electronic communications. Independence remains a critical issue in ensuring predictability and stability in the regulatory environment. Independence involves two elements:

- separation of the NRA from the regulated firms and
- isolation of the NRA from political intervention.

The first aspect of independence (from industry) is generally less contentious and more straightforward to assess than the second (independence from political influence). Both issues are addressed in the three following tables.

Article 3 of the Framework Directive requires that regulatory tasks must be carried out by competent bodies that are legally distinct and functionally independent from any organisations providing electronic communications networks and services. Furthermore, where the state retains control of undertakings providing electronic communications networks and services, the activities associated with the state ownership and control must be structurally separate from regulatory functions.

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. Nevertheless, in countries where the state is no longer the owner of any electronic communications undertakings, the subject of regulatory independence is usually a lesser concern.

a) State ownership of telecommunications operators

Table B.1 provides information about state ownership and the control of fixed and mobile telecommunications operators. This includes any ‘golden shares’, i.e., special powers granted to the state by law or by the articles of association of a company that allow it to maintain a special influence in privatised companies. Figure 33 shows the state ownership for those operators present in the region, including parent firms such as the Austrian, German and Saudi incumbent operators.

In Croatia, following an IPO of 32% of the stock of T-Hrvatski Telekom (T-HT) in the autumn of 2007 and further sale of shares during 2008, the state’s shareholding in the incumbent operator was further reduced to 3.6%. The Croatian War Veteran’s Fund owns a further 7%, transferred from government holdings in 2005. Deutsche Telekom remains the majority owner of T-HT with 51% which is acquired in two tranches in 1999 and 2001. The remaining 38.4% is held by private and institutional investors.

In FYROM, the government controls 34.81% in the incumbent Makedonski Telekom plus one “golden share”. The majority 51% stake is held by Magyar Telekom, a subsidiary of Deutsche Telekom. The remaining 12.1% is held by private investors.

In Turkey, following the sale of 55% of the stock of Türk Telecom to Saudi Oger in 2005, the government conducted an IPO of further 15% in April 2008, retaining 30% shareholding plus one golden share. (35% of Saudi Oger is controlled by Saudi Telecom Company (STC) which is 70% owned by the Kingdom of Saudi Arabia.) The Turkish Treasury performs the ownership function of the state's shareholding in Türk Telekom, while the Ministry of Transportation is responsible for its operational activities ('golden share' function). The Turkish government also holds 24.3% in Avea Telecommunications, a mobile operator that is 81% owned by Türk Telekom. Turksat Satellite Communication and Cable TV Operation AS (Turksat) is wholly owned by the government.

In Albania, in June 2007, after a two-year period of negotiations Calik Enerji, a Turkish group, and the Albanian Ministry of Economy, Trade and Energy, signed an agreement for the sale of a 76% state's shareholding in the incumbent operator, Albtelecom. The deal also included Eagle Mobile, the third mobile telephony licensee that was not then operational. The purchaser is a joint venture owned by Calik Energi (80%) and Türk Telekom (20%). The agreement was ratified by the Albanian Parliament on July 19, 2007. In February 2009, the Albanian government agreed to sell its 12.6% stake in Albanian Mobile Communications (AMC), a major mobile operator, to Cosmote, a mobile subsidiary of the Greek incumbent operator, who following the transaction will control 95% of AMC.

In Bosnia & Herzegovina, there are incumbent operators in each of the three territories. The Federation government of Bosnia & Herzegovina retains 90% of BH Telecom (Sarajevo) and 50.10% of Hrvatske Telekomunikacije (Mostar), with the ownership functions performed by the Federal Ministry of Transport and Communications. The third incumbent operator, Telekom Srpske in the Republika Srbska is fully privatised. In December 2006, the Serbian incumbent operator, Telekom Srbija, won the tender for the privatisation of the 65% holding of Republika Srpska in Telekom Srpske. This was completed in July 2007, following the approval of the Competition Council of Bosnia & Herzegovina. Of the remaining shares, 20% float on the national stock exchange, 10% are held by a pension fund and 5% are held by a restitution fund.

In Montenegro, there is no longer state ownership of any operator. In March 2005, the government sold its 76.53% shareholding in Crnogorski Telekom to Magyar Telecom, a subsidiary of Deutsche Telekom. Private investors now hold 23.47% of the shares which are quoted on the stock exchange. In 2001, the former PTT of Montenegro (a state-owned enterprise) sold its 9% share in ProMonte, a mobile operator, to the majority shareholders.

In Serbia, the government owns 80% of Telekom Srbija through the Public Enterprise of PTT Traffic "Srbija", commonly known as PTT, or the Post Office. The government also retains a 'golden share' that gives the veto power over all strategic decisions of the company. Since 2003, the Greek incumbent operator OTE controls the remaining 20% of the capital in Telekom Srbija, itself partly owned by the Greek state (25%) and by Deutsche Telekom (25%).

In Kosovo, UNMIK was responsible for the 100% state ownership of PTK, the incumbent operator, through the Kosovo Trust Agency (KTA), a provisional body established by UNMIK regulation 2002/12. Following the unilateral declaration of independence by Kosovo in February 2008 and entry into force of the Constitution of Kosovo on June 15, 2008, the Kosovar government took over the UNMIK roles. The government ownership and control functions in PTK are exercised by the Ministry of Transport and Communications.

	Name of operator	State shareholding	Golden share	Government unit responsible for ownership functions
Croatia	HT - Hrvatske Telekomunikacije d.d.	3.60%	-	Not defined
FYROM	Makedonski Telekom A.D.	34.81%	Yes	Ministry of Finance
Turkey	Türk Telekomünikasyon A.Ş. Avea	31.70% 24.30%	Yes	Treasury is responsible for ownership and golden share functions Ministry of Transport is responsible for operational functions

	Name of operator	State shareholding	Golden share	Government unit responsible for ownership functions
	Turksat	100.00%	-	Treasury is responsible for ownership functions Ministry of Transport is responsible for operational functions
Albania	Albtelecom sh.a. Eagle Mobile	24.00% 24.00%	-	Ministry of Economy, Trade and Energy
Bosnia & Herzegovina	BH Telecom d.d. Sarajevo	90.00%	-	Entity government in Federation of BiH
	Hrvatske Telekomunikacije d.o.o. Mostar	50.10%	-	Entity government in Federation of BiH
Montenegro	-	-	-	-
Serbia	Telekom Srbija a.d.	80.00%	Yes	Not defined
Kosovo	PTK (Post and Telecommunications Enterprise of Kosovo)	100.00%	-	Ministry of Transport and Communications

Table B.1 - State ownership and control of telecommunications operators

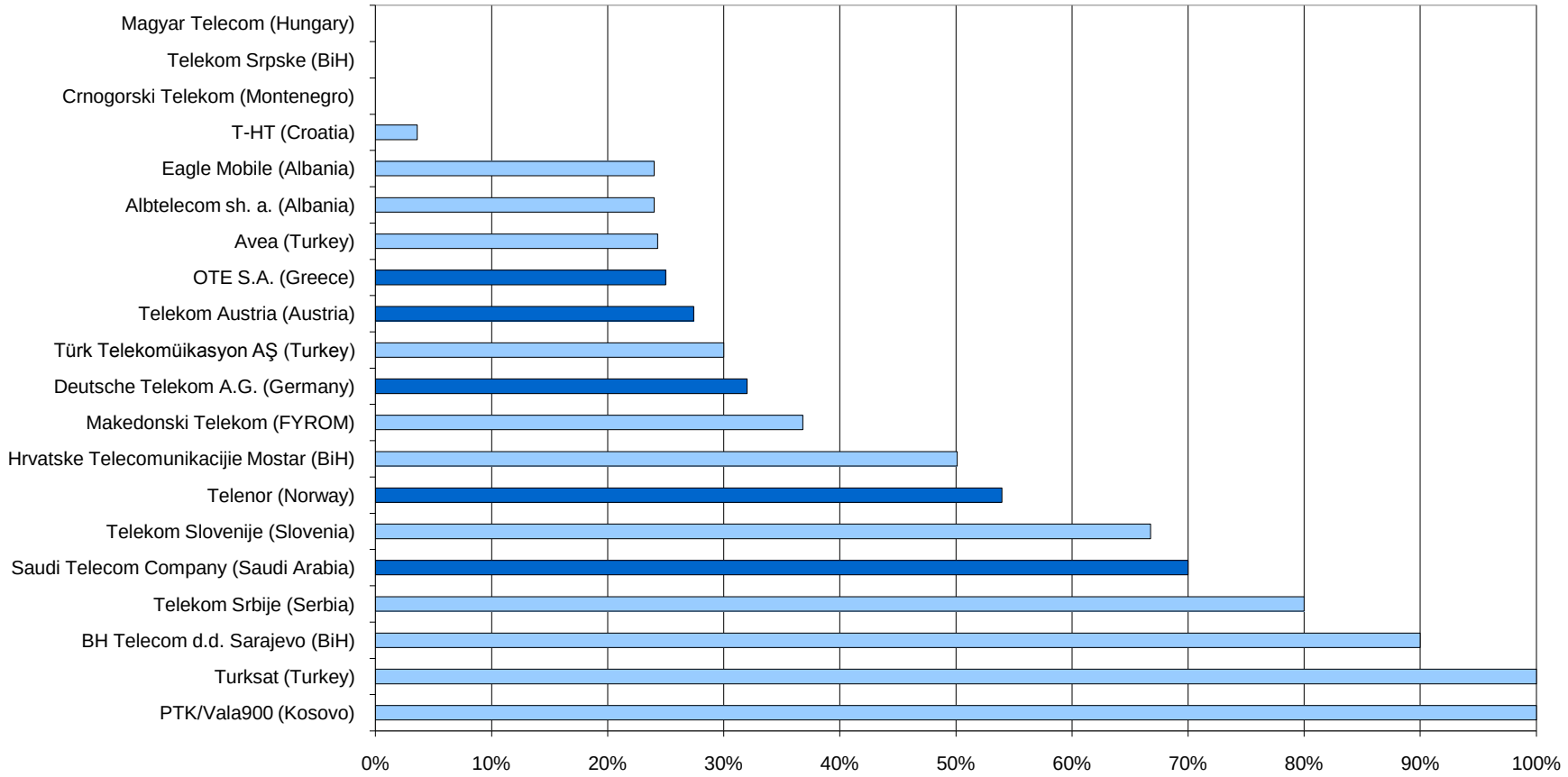


Figure 33 - State ownership of telecommunications operators

b) Responsibilities of the NRA and policy-making bodies

Political influence is the most direct means of influencing the NRA. The mere possibility of political intervention may put the regulator under pressure. Although there is no explicit requirement to separate regulatory tasks from the activities of the Ministry or other bodies responsible for the electronic communications policy, the common practice across the EU is to create an NRA that is also separate from the policy-making bodies. The issue of political independence can be assessed, *inter alia*, on the basis of: the extent to which the NRA discretion has been limited by law, the potential and actual extent of political intervention, the rules for appointment and dismissal of the NRA management and its duration of office.

The table below addresses:

- the division of the key responsibilities between the NRA and the ministry (or other government body) responsible for the electronic communications policy;
- powers of the Ministry or the government to give binding directions to the NRA; and
- whether certain NRA decisions are subject to prior or subsequent approval by the ministry or by another governmental institution.

Country	NRA and its responsibilities	Ministry (government) and its responsibilities	Ministry (government) powers to give instructions to NRA? Government intervention required for adopting certain decisions?
Croatia	Article 12, Electronic Communications Act of June 19, 2008 The Croatian Post and Electronic Communications Agency responsibilities include: • Adoption of implementing legislation • Monitoring and regulation of prices and general business terms and conditions of operators • Market analysis, designation of undertakings with SMP an imposition of regulatory obligations • Designation of universal service providers • Adoption of the Numbering Plan, Addressing Plan and drafting the Frequency Allocation Table • Issuing individual spectrum licences • Dispute resolution involving operators, service providers, end users • *Expert* supervision over application of the Act and regulations adopted under the Act *(perfo*rmed by the NRA's supervisors)	Article 4, Electronic Communications Act of June 19, 2008 Government: • Adopts strategies, studies, guidelines and programmes establishing general principles and policy objectives for the development of electronic communications The Ministry of the Sea, Transport and Infrastructure: • Drafts proposals for strategies, studies, guidelines and policy objectives • Coordinates and supervises the work of all authorities responsible for implementation of the policy objectives • Prepares and adopts implementing legislation, including the ordinance on the allocation of spectrum and the Frequency Allocation Table • Carries out *inspection* supervision in electronic communications (performed by the Ministry inspectors)	Article 4, Electronic Communications Act of June 19, 2008 The Ministry • may give guidelines and instructions to the NRA concerning the implementation of the established principles and policy objectives for the development of electronic communications; • may not influence the adoption of the NRA decisions in individual cases The administrative supervision of the NRA by the Ministry established under Article 3(6) of the previous Telecommunications Act of 2003 was removed from the new Electronic Communications Act of 2008. Article 18(4) of the new Act states that final decisions and other administrative acts of the NRA may not be annulled or repealed on the basis of supervision rights, or repealed under emergency procedures, or be made null and void by a competent body.

Country	NRA and its responsibilities	Ministry (government) and its responsibilities	Ministry (government) powers to give instructions to NRA? Government intervention required for adopting certain decisions?
FYROM	Article 9, Law on Electronic Communications of 2005 Agency for Electronic Communications (AEC) is responsible for: • adoption and implementation of the secondary legislation • spectrum management, including allocation and assignment of frequencies • number management • market analysis; designation of undertakings with SMP and imposition of regulatory obligations • approval of reference interconnection and unbundling offers • regulation of wholesale and retail prices • universal service: designation of providers and management of the US fund • dispute resolution in commercial disputes • consumer complaints	Article 6, Law on Electronic Communications of 2005 The Ministry of Transport and Communications: • prepares the National Strategy for development of electronic communications and information technology • prepares legislation for electronic communications	Article 7, Law on Electronic Communications of 2005 The NRA, *"in its work and in taking the decisions within the scope of its competencies is independent and not subordinated to any state body or other public legal person or trade company engaged in operating in the field of electronic communications and is impartial towards them."* Under Article 63, Law on Electronic Communications of 2005, the government approves the minimum one-off fee for frequency authorisations issued subject to tender procedures Under Article 35, the Ministry approves the universal service provider selected by the NRA in a public tender procedure.
Turkey	Electronic Communications Law No. 5809 of November 5, 2008 Information Technologies and Communications Authority (ICTA) is responsible for: • ensuring competition through regulations aiming at the elimination of anti-competitive practices • adopting regulations and performing supervisory activities to protect the rights of the end users • conducting market analyses • adopting regulations and performing supervisory activities in the field of authorisations, tariffs, access, rights of way, numbering, spectrum management and market surveillance by taking into consideration the strategies and policies of the Ministry • ensuring the implementation of the harmonized standards prepared by the national standards bodies • market surveillance and supervision	Ministry of Transport is responsible for: • strategies and policies for electronic communications sector, promoting development of competitive environment and transition to information society • policies for the construction and development of electronic communications networks and services in accordance with the technical, economical and social needs, national security objectives and public interest. • contributing to the policies for the development of the electronic communications equipment industry • encouraging domestic design and production of electronic communications systems, promoting research and development activities by technical and financial means • taking measures to ensure the continuity of communication in the case of natural	ICTA has been established as a financially and administratively independent regulatory body which acts as public legal entity with a view to exercise the authority and to perform tasks assigned by the laws. According to Article 5 of Law on Establishment of Information Technologies and Communications Authority No. 2813 (as amended by Electronic Communications Law No. 5809), *'ICTA is independent in performing its tasks. Not any body, office, authority or person could direct or instruct the Authority.'* However, minimum values of authorization fees are currently determined by the Council of Ministers. From May 2009, when general authorization regime enters into force, minimum values for individual rights of use will be determined by the Council of Ministers.

Country	NRA and its responsibilities	Ministry (government) and its responsibilities	Ministry (government) powers to give instructions to NRA? Government intervention required for adopting certain decisions?
		disasters and emergencies	
Albania	Article 8, Law on Electronic Communications (Law No. 9918 of May 19, 2008) Authority of Electronic and Postal Communications (AKEP) is responsible for: • Regulation of access and interconnection • Approval of reference offers for access and interconnection • Market analysis, designation of undertakings with SMP and imposition of regulatory obligations • Registration of notified undertakings • Assignment of frequencies for electronic communications services • Preparing the National Numbering Plan and assignment of numbers • Price control of wholesale and retail tariffs • Management of the universal service fund and carrying out of the designation procedures of the universal service providers • Management of national top level domain names	Article 5, Law No. 9918 of May 19, 2008 The Minister of Public Affairs, Transport and Telecommunications is primarily responsible for: • preparing and presenting for the approval by the Council of Ministers the proposal for the policy in the electronic communications field and following its implementation • issues orders and instructions for completing the regulatory framework defined by the Law and government's policies • drafting relevant primary and secondary legislation • preparing the National Radio Frequency Plan • approval of tender procedures for frequency assignment and the designation of universal service providers, based on proposals by AKEP	Article 6, Law No. 9918 of May 19, 2008 *'AKEP is a public, independent, non-budgetary, legal entity, which exercises its activity in compliance with legislation in force. AKEP in its work and decision-making within its competencies is independent'.* However, according to Article 5, the Minister approves tender procedures for frequency assignment and the designation of universal service providers, based on proposals by AKEP.
Bosnia & Herzegovina	Article 3, Law on Communications of 2002 Regulatory Authority for Communications (RAK) is responsible for: • regulating radio and TV broadcasting and public telecommunications networks and services • licensing • tariffs regulations • interconnection • defining the basic conditions for the provision of common national and international communications facilities • planning, co-coordinating, allocating and assigning the use of the radio frequency spectrum • management of the numbering plan and assignment of numbering resources to telecommunications operators.	The Council of Ministers is responsible for: • developing and adopting policy in line with the existing legislation • defining the scope of the universal service, designating the providers and establishing the funding mechanism, based on proposals of the NRA • determining the representation of BiH in international forums concerned with communications RAK cooperates with the Ministry which practically performs the coordination of functions which are the Council of Ministers responsibility.	In order to carry out the constitutional provisions in respect of communications the Council of Ministers is responsible for policy-making, and RAK is responsible for the regulation. As policy maker, the Council of Ministers issues obligatory political guidelines, but without influence in RAK decision making process. The Council of Ministers, however, decides on the scope of the universal service, designation of the providers and establishing the funding mechanism, based on proposals of the NRA. The Council of Ministers also approves, based on proposals of the NRA applicable fees and terms and conditions for spectrum licences.

Country	NRA and its responsibilities	Ministry (government) and its responsibilities	Ministry (government) powers to give instructions to NRA? Government intervention required for adopting certain decisions?
Montenegro	Article 8, Law on Electronic Communications of July 29, 2008 Agency for Electronic Communications and Postal services: • prepares draft bylaws and regulations that are adopted by the Ministry • adopts rules and procedures for the implementation of the Law and bylaws • prepares draft national radio frequency bands allocation plan that is adopted by the Government • adopts the national addressing and numbering plans • organises tender procedures and issues authorisations to use frequencies, numbers and addresses • presents for the government approval the amount of fees to be paid by authorised operators and service providers, calculated based on the methodology developed by the Ministry • performs market analyses, designation of providers with SMP and imposition of regulatory obligations • dispute settlement • designation of the universal service provider and management of the universal service fund • *expert supervision* of activities of registered operators	Article 4, Law on Electronic Communications of July 29, 2008 Government: • adopts development strategy on decade bases • adopts the national radio frequency bands allocation plan • adopts the NRA statute, approves its annual action plan and financial plan • adopts yearly activity report by the NRA, including the financial report • periodically determines the scope of universal service • determines conditions for utilizing networks for electronic communications in state of emergency. Article 5, Law on Electronic Communications of July 29, 2008 Ministry of Maritime affairs, Transport and Telecommunications: • develops legislation and adopts bylaws and regulations under the Law on Electronic Communications • drafts sector development strategy • approves QoS requirements for the universal service on the NRA proposal • determines methodology to be applied by the NRA when setting authorization fees and fees for use of limited resources • authorizes institutions responsible for certification of R&TTE equipment • performs *inspection* of the implementation of the Law and secondary legislation adopted under the Law	Article 130, Law on Electronic Communications of July 29, 2008 authorises the Ministry to perform "supervision of legality and purposefulness" of the NRA activities. This supervisory function should not be applied to the regulatory decisions and regulatory rules adopted by the NRA, where the NRA must be independent. The new Law on Electronic Communications provides for the separation of legislative functions of the Ministry from strictly regulatory activities performed by the NRA. Under the previous Telecommunications Law (Official Gazette No. 59/2000), the NRA had more powers to adopt secondary legislation, independently from the Ministry.

Country	NRA and its responsibilities	Ministry (government) and its responsibilities	Ministry (government) powers to give instructions to NRA? Government intervention required for adopting certain decisions?
Serbia	Article 9, Telecommunication Law RATEL's responsibilities include: • adoption of technical regulations • market analysis and designation of operators with SMP • licensing and authorisation of telecommunications network operators and service providers, including the conducting of public tenders for individual licenses in accordance with the Ministry's resolution on the number, timing and minimum conditions for granting such licenses • settlement of disputes between telecommunications operators and between operators and end users • drafting proposals for the Radio Frequency Allocation Plan and the Radio Frequency Assignment Plan • price control of undertakings with SMP • assignment of radio frequencies • adopting the Numbering Plan and assigning numbers • managing the universal service fund.	Article 5, Telecommunication Law Government: • Defines the policy and strategy of telecommunications development on proposal of the Ministry • adopts the Radio Frequency Bands Allocation Plan. Article 6, Telecommunication Law Ministry of telecommunications and information society is authorized to: • supervise the implementation of the Law and regulations adopted on the basis of this Law • prepare a proposal of the strategy for telecommunications development • prepare a proposal of the Radio Frequency Bands Allocation Plan and adopt the Radio Frequency Assignment Plan based on the NRA's proposal • decide on the number and timing of individual licenses to be granted for public telecommunications networks or services through a public tender procedure, including the minimum amount of a one-off licence fee • define the scope of universal services based on the proposal made by RATEL	Under Article 7, Telecommunication Law, the NRA is defined as *"an autonomous legal entity, functionally independent of and not subordinated to any government authority, as well as of any organization and person engaged in operating telecommunications networks and equipment or providing services."* The Ministry, however, performs a supervisory function over the activities of the NRA. Article 56, par 2 of the Law on State Administration provides that if the NRA fails, despite multiple warnings, to start performing business or start performing it properly or timely, the Ministry as a supervisory body of the state administration may take over its competencies but for a period no longer than 120 days. Under Article 57, par 1 of the Law on State Administration, the NRA is obliged, before publication of its proposed regulation, to get the opinion from the Ministry of constitutionality and legality of the regulation. According to a clarification provided by the government in June 2008, the NRA is, however, *"under no obligation to act along the proposal of the Ministry."* The Ministry approval is required in the tender procedures for issuing individual licences and defining the scope of universal service.

Country	NRA and its responsibilities	Ministry (government) and its responsibilities	Ministry (government) powers to give instructions to NRA? Government intervention required for adopting certain decisions?
Kosovo	Under Telecommunications Law No. 2003/16, TRA is authorised to: • issue licenses and authorizations for provision of telecommunications services • implement the policies of the Ministry pursuant to the Law on Telecommunications, and other implementing legislation • issue regulations and instruction for the implementation of the present Law • assign rights to use spectrum resources and numbers • issue price regulations • adopt a numbering plan and assign numbers • prepare a spectrum resource plan subject to Assembly review and approval • perform market analysis and designate operators with SMP • define the scope, requirements and funding mechanisms of the universal service on recommendation by the Ministry.	Ministry of Transport and Communications • develops policies for the Telecommunication sector, including the development of legislation • supervises the work of PTK Assembly is responsible for: • review and approval of the spectrum resource plan • approval of the NRA budget.	The Law No. 03/L-085 of June 13, 2008 amending the Law on Telecommunications No 2003/16 establishes TRA as the sole authority to allocate radio frequency spectrum, subject to “Assembly review and approval in written” of the TRA spectrum resource plan. The Law also deletes references to UNMIK, its Frequency Management Office (FMO) and SRSG (Special Representative of the Secretary General). The new law further ensures the NRA administrative independence by removing the provisions in the Telecommunications Law that enabled the Ministry to issue instructions to the NRA to amend a licence.

Table B.2 - The division of responsibilities between the Ministry and the NRA

2. Appointment and dismissal of the directors of the NRA

The rules and procedures for appointment and dismissal of the NRA management are covered in the table below, addressing:

- eligibility criteria for the NRA management (e.g. professional background, restrictions on interest in any of the market participants);
- government bodies involved in the appointment of the NRA management and specific procedures;
- duration in office of the NRA directors; and
- grounds and procedures for removal of the NRA management.

Country	Rules and procedures for appointment and dismissal	Eligibility criteria for appointment
Croatia	• The NRA is governed by the Council consisting of seven members, including a Chairman and a Deputy Chairman, who are full-time employees of the NRA during their term of office. • The Council members are appointed and dismissed by Parliament upon proposal of the Government. • The appointment is for a period of five years with the possibility of reappointment. • The NRA's administrative service performing expert, administrative and technical tasks is managed by the Director appointed by the NRA Council for a period of four years with the possibility of reappointment. • Dismissal in the cases of: resignation, provision of false information at the time of the appointment, serious professional misconduct, inability to perform professional duties for more than 6 months in a row, permanent loss of ability to perform professional duties, conviction of criminal offence, failure to fulfil objectives and tasks defined in the NRA annual work programme, conflict of interest.	The members of the NRA Council must fulfil the following criteria: • to be Croatian citizen domiciled in the Republic of Croatia • with university education or specialised university education in electronic communications, postal services, law or economics • adequate work experience • active knowledge of at least one foreign language (English, French or German) • at least two members must have a completed an undergraduate course or a specialised undergraduate course in law, and two in economics • five members must have at least five years of work experience in the electronic communications sector, and two members of must have at least five years of work experience in the postal services sector • may not be state officials, persons on positions in bodies of political parties, units of local and regional self-government or unions or persons employed, having influence or performing other tasks in electronic communications and postal undertakings • may not be owners, stockholders or shareholders in regulated entities or perform other tasks that may result in conflict of interest.
FYROM	• The NRA is governed by a Commission that consists of five members, including the President and Vice President. The President and the members of the Commission are appointed and dismissed by Parliament. • Dismissal of the Commission members prior to the expiration of the term of office in the cases of: own request, sentence of longer than six months for a criminal act, absence from three consecutive meetings or five meetings during any 12 months period during the term of office, failure to submit annual reports of the NRA to the Assembly. • The NRA's day-to-day activities are managed by the Director, engaged as a professional full-time employee. The Director is appointed by the Commission following a public competition procedure. • The Director can be dismissed by the Commission in the cases of: own request, inability to perform professional duties due to illness for more than 6 months, acceptance of an incompatible position or practice, sentence of longer than six months for a criminal act, violation of the law and abuse of the position. • The term of office of the Commission members and its Director is five years, with a possible reappointment for an additional consecutive term of office.	• The President and members of the NRA Commission may not be: deputies of the Assembly, members of the Government, perform duties in bodies of the political parties, members of managing and supervisory bodies in public companies, or members of any other form of association of legal and natural persons that might lead to a conflict of interests and may not hold equity directly or indirectly in any undertaking performing activities in electronic communications sector. • The Director appointed through a public competition procedure must be: a citizen of the Republic of Macedonia and a holder of university degree in the field of science, law or economics with professional experience of more than 5 years and have organizational and managing abilities.
Turkey	• The decision making body of the NRA is the Telecommunications Board that consists of seven members, including a Chairman and a Vice Chairman. The Chairman is also responsible for the general management and representation of the NRA.	• University degree in relevant fields • Ten years of experience in public or private sector • Eligibility for public service • No connections to political parties

Country	Rules and procedures for appointment and dismissal	Eligibility criteria for appointment
	• Board members are appointed for a period of five years by the Council of Ministers. Two of them are nominated by operators having at least 10% market share, one member – by the Ministry of Industry, one – by Trade and the Union of Chambers and Industry, and three members – by the Ministry of Transport. • Appointments require approval by the President of the Republic. • The Board members can only be dismissed before expiration of a term by the Council of Ministers for inability to work due to serious illness, professional misconduct or criminal offences.	• No conflict of interest
Albania	• The NRA is governed by the Governing Council composed of five members appointed for a 5 year office term, by the Assembly of the Republic of Albania, on the proposal of the Council of Ministers, and having the right for no more than one office term. • The Assembly appoints one of the members of the Governing Council as the Chairman, who also acts as the Executive Director of the NRA. • Dismissal in the case of physical or mental incapability, conviction for a criminal act, appointment as a Member of Parliament or a local government body, inability to exercise professional duties for more than 6 months. • A dismissed Board member shall not have the right to be re-appointed in the Governing Council.	• Member of the Governing Council shall be graduates and qualified experts, with a minimum of 7 years experience and shall represent the sector of the electronic communications, postal, economic, and juridical. • Upon appointment shall resign from any official positions or functions, give up any for-profit activity, as well as to sell and liquidate any financial interest in undertakings active in electronic communications or postal sectors. • May not have family ties to the Council of Ministers, have been convicted for a criminal act or excluded by law from holding public positions.
Bosnia & Herzegovina	• Strategic and policy issues at the NRA are decided by the Council of seven (7) members nominated by the Council of Ministers and appointed by Parliament. Parliament shall accept or reject these nominations within thirty (30) days after submission of the nominations. • The NRA is headed by the Director General, who is elected by the Council of the Agency and approved by the Council of Ministers. He is responsible for all regulatory and administrative functions and manages day to day operations. • The Parliament has the sole authority to dismiss the members of the Council before completion of their mandate. • The Council of Ministers has the sole authority to dismiss the Director General before completion of the mandate. • Both, members of the RAK Council and the Director General have a term of 4 years and can be re-appointed only once. • Dismissal before the end of the mandate due to serious illness, conviction of a serious crime, a conflict of interest, resignation, failure to participate in three or more consecutive meetings.	• Members of the Council of the NRA must demonstrate exceptional legal, economic, technical or other relevant expertise and experience for the fields of telecommunications and/or broadcasting . • The Director General must have relevant experience in the fields of telecommunications and/or broadcasting and proven management skills. • No conflict of interest.
Montenegro	• Under the Law on Electronic Communications of July 29, 2008 the NRA management structure consists of the Council and the Executive Director. • The Council of the NRA shall have the President, engaged as professional employee of the NRA, and 4 members of the Council who could be part time	• President of the Council, its members and the Executive Director shall hold Montenegrin citizenship and have permanent residence in Montenegro, and have higher education in telecommunications, electronics, economy or law, at least 5 years of experience, covering positions in the field of electronic communications.

Country	Rules and procedures for appointment and dismissal	Eligibility criteria for appointment
	or professionally engaged employees of the NRA. • The Executive Director shall be engaged as professional full-time employee. • President of the Council and members of the Council shall be appointed by the Government upon the Ministry proposal to a term of office of 5 years. The Executive Director shall be appointed by the Council, for a term of office of 4 years. They shall not hold office for more than two consecutive terms. • Dismissal before the expiration of the term of office due to resignation, conviction of a crime, permanent loss of ability to perform duties, conduct damaging to the reputation of the independence of the NRA.	• They may not hold equity nor have other interests in any organisation active in the field of electronic communications. • They may not be Members of Parliament or Deputies, officials or members of political parties' bodies.
Serbia	• The NRA is managed by the Managing Board that consists of a Chairman and four Members who are appointed and relieved from office by the National Assembly, at the proposal of the Government. • Their term of office is five years with a possibility of a reappointment for one more consecutive term. For the first term, the Chairman is appointed for five years, two members of the Board for four years and two members for three years. • The Managing Board appoints the Executive Director of the Agency who is responsible for the administration and operational issues. • Dismissal before the expiration of the term of office due to resignation, illness causing the loss of the ability to perform professional duties for longer than 6 months, conviction of a crime or corruption, provision of incorrect data at the time of appointment, conflict of interest.	• Managing Board members must demonstrate professional knowledge and experience relevant to the activities falling within the responsibility of the NRA, in particular in the field of engineering, economics and law, and the proposal must include at least two candidates from the field of engineering and at least one candidate from the field of economics and one from the field of law.
Kosovo	• The NRA is managed by the Board that consists of five Members who are appointed and relieved from office by the National Assembly, at the proposal of the Government with the recommendation from the Minister of Transport and Communications. • Their term of office is five years with a possibility of a reappointment for one more consecutive term. The Minister of Transport and Communications, acting in consultation with the Prime Minister designates one member of the Board to be the Chairman, who is also responsible for the administration and operational issues. • Upon a two-third vote of the members, the Board shall remove a Member on the ground of professional incompetence, misconduct or a conflict of interest. Dismissal is subject to approval by the Assembly.	• Members of the Board shall be university graduates with specialized knowledge in the area of politics, frequencies, interconnections, tariffs, law, economics, standardizations, or have at least ten (10) years experience in the telecommunications sector. • A member shall, if applicable, resign from public or elected office or other employment and shall not engage in any other commercial activity regardless of whether the Member receives compensation for such activity. In addition, a Member shall be required to terminate any business activities and financial interests in enterprises that are under the jurisdiction of the Board, and otherwise comply with the provisions of the NRA's standards of conduct.

Table B.3 - Appointment and dismissal of the directors of the NRA

Notes:

Croatia: The new Electronic Communications Act of June 19, 2008 establishes the Croatian Post and Electronic Communications Agency (HAKOM) as a new regulatory authority that takes over the tasks and responsibilities of the previous regulators for telecommunications (the Croatian Telecommunications Agency, HAT) and for postal services (the Postal Services Council). Members of the Council of the HAT and the Chairman of the Postal Services Council will continue

as Members of the Council of HAKOM until the expiry of their term of office. The former HAT Council Chairman will be the HAKOM Council Chairman and the former Postal Services Council Chairman will be HAKOM Council Deputy Chairman.

Albania: Article 138 of the new Law on Electronic Communications No. 9918 of May 19, 2008 states that the present NRA, TRE, will continue its activities as the Authority of Electronic and Postal Communications (AKEP), and TRE Governing Council Members continue as AKEP Governing Council Members until the expiry of their term of office.

Montenegro: Article 142 of the new Law on Electronic Communications adopted on July 29, 2008 states that the present NRA, the Agency for telecommunications and postal services will continue its activities as the Agency for electronic communications and postal services. The Government was required to appoint the president of the Agency Council and its Members within 60 days from the entry into force of the new Law. Within 30 days from the appointment of the Council, its Members were required to appoint the Executive Director.

3. NRA budget and sources of financing

The NRA financial and operational means play an important role in ensuring a stable and predictable regulatory environment. Therefore, 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 regulatory framework requires that the NRAs are self-financing and that their fees only cover their administrative costs, except when allocating limited resources. Furthermore, under the EU 2002 framework, the general authorisation regime applies to all activities in the electronic communications sector with the exception of those requiring the use of limited resources. Therefore, the NRA fees associated with authorisations, such as registration fees, are set a modest level.

Table B.4 presents information on the operational budgets of the NRAs in 2007 and 2008, as well as the sources of their financing. In this table, the term "authorisation fees" is used to describe one-off fees related to the issue of all types of authorisations, including individual licences.

Country	Operational budget € (000s)		Sources of financing				
	2007	2008	Annual revenue-based fees	One-off authorisation/ notification fees	Spectrum	Numbers	Other
Croatia	9,376	11,141	34.00%	-	23.00%	40.00%	3.00%
FYROM	7,420	7,213	11.54%	-	71.06%	9.94%	7.46%
Turkey	48,911	42,665	6.00%	21.81%	69.19%	-	3.00%
Albania	1,572	1,928	-	30.80%	68.80%	0.20%	0.20%
Bosnia & Herzegovina	3,706	4,218	63.21%	-	6.18%	30.14%	0.47%
Montenegro	2,800	3,500	68.80%	17.00%	2.00%	-	12.20%
Serbia	9,117	13,916	59.00%	22.00%	9.00%	-	9.00%
Kosovo	519	2,242	71.22%	28.33%	0.41%	-	0.22%

Table B.4 - Operational budget of the NRA and its sources of financing

Notes:

FYROM: At the beginning of 2008, the Commission of the NRA adopted a decision to decrease the fees for frequencies, numbers and market supervision by 30%.

Albania: The Law on Electronic Communications No. 9918 of May 19, 2008 changed the sources of the NRA funding from licence and frequency levies and fees to an annual administrative fee ('annual income contribution to AKEP'). Any amount exceeding the expenses of AKEP shall go to the State Budget. Frequency and numbering fees are approved by the Council of Ministers on the NRA proposal, collected by the NRA and transferred to the state budget.

Montenegro: Operational budget for 2009 is projected in total amount of €5.182 million, according to the NRA financial plan for 2009.

4. NRA staffing

Table B.5 below shows:

- the total NRA staff in 2008
- sub-divided into the number of qualified employees dealing with
  - general regulatory issues;
  - frequency monitoring tasks; and
- legal or financial restrictions on the NRA's ability to set the level of remuneration of its staff (e.g., salaries tied to civil service rates).

Country	Total	Handling electronic communications regulatory tasks	Handling frequency monitoring tasks	Restrictions on the NRA's ability to set salary levels
Croatia	143	48	20	The annual financial plan and the annual financial statement of the Agency must be approved by the government.
FYROM	99	14	22	No legal restriction
Turkey	640	340	20	The salary of the President of the ICTA Board may not exceed that of the Undersecretary of the Prime Minister cabinet. Salaries of the other Board members may not exceed that of the President. Total amount of the payments made to the ICTA personnel shall not exceed the total amount of payments made to Board members. Salary levels of the personnel are set according to an internal system of grades.
Albania	60	32	8	The structure and the level of salaries is approved by the Parliament based on a proposal from the Council of Ministers.
Bosnia & Herzegovina	100	27	24	The Law on Salaries and Allowances for Civil Servants of June 23, 2008 brings the salary level of the NRA staff within the pay scales for civil servants. The NRA has to follow the established scales for the basic salary levels and is only be able to increase salaries of its staff through an additional "regulatory" bonus scheme.
Montenegro	42	15	13	No legal restriction
Serbia	98	28	22	No legal restriction
Kosovo	33	13	2	Salary levels are regulated subject to pay scales and a system of grades that applies to all civil servants in Kosovo and are set based on the TRA budget approved by Parliament.

Table B.5 - Staffing and salary levels of NRAs

Notes:

FYROM: In the second half of 2008, the NRA made plans to improve its capacities on expert level and recruit new employees in market analysis, telecommunication and legal departments performing regulatory tasks. But due to the forthcoming presidential and local elections on March 22, 2009, these activities have been postponed until the end of election procedure.

Albania: Electronic communications tasks include the following: market regulation, licensing, technical (excl. frequencies), legal department, inspection and decision-making, the board of the NRA.
Approval of the new statute for the NRA took almost two years, taking effect only when the previous board was dismissed. Since April 2008 the organizational structure and the position of experts in the new structure has been under consideration by the Board of the NRA.

Bosnia & Herzegovina: There are 12 regulatory experts in the telecommunications sectors and 15 in the broadcasting sector, frequency monitoring tasks are handled by13 experts in the frequency department and 11 in the monitoring department.

Montenegro: The number of employees handling telecommunications regulatory tasks does not include employees engaged in inspection, secretaries, drivers, administration, archives, accounting, translators, household and security. It also excludes personnel on a one-year work trial.

5. NRA enforcement powers

The NRA bears the primary responsibility of ensuring compliance with the obligations imposed on operators either directly by the law, or by the NRA after carrying out a market analysis procedure. To that effect, the NRA should have specific investigatory and sanctioning powers.

In order to ensure effective compliance with SMP-obligations, the NRA sanctioning powers should, in particular, allow it to impose fines with a sufficient deterrent effect and to order the suspension of non-compliant commercial offers. Sanctions should be sufficiently stringent, taking into account the substantial commercial benefits from the illegal practice. Moreover, the threat of sanctions should also be sufficiently real to ensure SMP operators conform to their regulatory obligations.

Table B.6 itemises the:

- powers of the NRA to impose fines, specific instances when a fine can be imposed and the level;
- powers of the NRA to suspend non-compliant commercial offers (in particular, this refers to the regulated offers of operators with SMP); and
- examples of fines imposed by NRAs.

Country	NRA powers to impose fines	NRA powers to suspend commercial offers	Applied in practice
Croatia	No power to impose fines directly. The NRA has a power to start misdemeanour procedures before the Misdemeanour Court. The range of fines is 1% to 5% of the total annual gross income generated by the provision of electronic communications services and activities, in the fiscal year preceding the year in which the violation was committed.	Yes Article 118, Electronic Communications Act of June 19, 2008	The NRA has initiated two misdemeanour procedures before the Misdemeanour Court against the operators that have breached the provisions of the Telecommunications Act and Electronic Communications Act, both cases are pending. Suspension of commercial offers has been regularly applied by the NRA: • On November 27, 2006 the NRA requested the mobile operator VIPnet to modify the tariffs of its 'Option Fixed' prepaid package that according to the NRA constituted predatory pricing,

Country	NRA powers to impose fines	NRA powers to suspend commercial offers	Applied in practice
			effectively suspending the launch of the offer. • On February 12, 2007 the NRA requested T-Com, the incumbent operator, to modify its fixed tariff plan called 'Non stop'. According to the NRA, the incumbent operator had practiced a price squeeze by offering fixed voice services at retail tariffs set below its wholesale charges.
FYROM	No power to impose fines directly. The NRA may initiate a procedure under the Law on Misdemeanours or the Law on Criminal Procedures. According to the Law on Electronic Communications, the maximum fine may be up to 7 to 10% of the total annual revenues in the year prior the year when the misdemeanour was committed performed or of the total revenue for a shorter period of the year preceding the misdemeanour, provided that the legal entity commenced its operations during that year. In 2009, a harmonization of the Law on Electronic Communications with the Law for misdemeanour is planned, after which the NRA will get powers to impose fines.	Yes Under Article 49 of the Law on Electronic Communications, the NRA may suspend commercial offers of the operator that has been designated as having SMP in a specific retail market and imposed obligations relating to regulation of retail services.	In April 2007, the NRA submitted an application for a misdemeanour procedure to the court against Makedonski Telekom for failure to implement an amended RUO.
Turkey	According to article 60 of the Law on Electronic Communications, ICTA may impose fines of up to 3% of the total annual revenue	Yes According to Bylaw on Tariffs and Bylaw on Access and Interconnection, if the proposed tariff of the SMP operator is not approved by the NRA, the offer is suspended and the SMP operator must propose a new tariff in accordance with the NRA requirements. This is also valid for reference broadband and LLU offer.	During the approval process of TT's ADSL wholesale resale tariffs in spring 2008 the NRA had suspended the proposed TTNet's retail ADSL prices.
Albania	According to article 137 of the Law on Electronic Communications, maximum fine is 10% of annual turnover of the operator during the previous calendar year. The fine is imposed mostly in cases of non-compliance with SMP obligations. Chapter XVI of the law stipulates the inspection procedures and frequency monitoring. Article 135 elaborates on the cases where the NRA may impose fines and administrative measures if and electronic communications network service providers do not abide by the rules and regulations.	Under articles 55-57 of the Law on Electronic Communications, AKEP has powers to regulate retail tariffs of the SMP operators and universal service providers. Based on article 52 of the Law, AKEP has powers to impose changes in the reference offers proposed by the operators with SMP. Reference offers must be approved by AKEP.	No financial penalty has been imposed in practice. Suspension of retail offers has not been applied in practice. On February 10, 2009 AKEP imposed changes in the RIOs of three SMP operators in Albania.
Bosnia & Herzegovina	The maximum fine is BAM 150,000 (ca. €75,000) for the first violation, with a maximum of BAM 300,000 (ca. €150,000) for a repeated violation.	Yes Article 20 of the Law on Communications.	The NRA regularly uses its right to impose fines.

Country	NRA powers to impose fines	NRA powers to suspend commercial offers	Applied in practice
Montenegro	Amounts of fines are defined in articles 137, 138, 139 and 140 of the Law on Electronic Communications. Maximum fine is three hundred times the minimum salary in Montenegro (about €16,500).	Yes Under Article 134 of the Law on Electronic Communications, expert supervisors of the NRA have the powers to monitor the compliance with tariff regulations and to suspend non-compliant offers.	No
Serbia	No power to impose fines directly. According to the Telecommunications Law, the Board of the NRA can initiate a court proceeding containing a proposal for fining the operators, but final decision is made by the Court. According to Article 96 of the Telecommunication Law: a fine in the range of RSD 300,000 (€3,674) to RSD 3,000,000 (€36,740) can be imposed on a public telecommunications operator if it sets tariffs contrary to those defined the NRA for the services subject to a price control.	Yes The NRA has a power to suspend the commercial offer only for the SMP operator and a cost-based analysis of the proposed tariffs.	No financial penalty has been imposed in practice. The NRA refused to accept the proposal of Telekom Srbija to raise the fixed telephone tariffs by its decision from April 17, 2006. The offer was suspended by the NRA.
Kosovo	The Ministry's Administrative Instruction No. 2004/3 on telecommunications fees and fines authorised the NRA to impose fines to a maximum of €250,000. It may also issue written orders requiring operators to correct defective actions within a specified time period (Law on Telecommunications, section 15 (5) a).	Yes PTK's fixed telephony licence contains provision stating that *'the Licensee may not increase the tariffs of any existing licensed Regulated Service or set a price for any new licensed Regulated Service in Kosovo without the prior written approval of the NRA'.*	No

Table B.6 - Enforcement powers of the NRA

6. Dispute resolution

Article 20 of the Framework Directive establishes a requirement for the NRAs to be able to issue binding decisions to resolve commercial disputes between undertakings arising from obligations under the regulatory framework. The maximum timeframe for resolving a dispute may not exceed four months. Table B.7 shows whether the NRAs are authorised to resolve commercial disputes. It also describes the applicable procedures and the timeframe.

Country	Type of commercial disputes that can be resolved by NRAs	Dispute resolution procedures and deadlines	Publication of disputes by NRAs
Croatia	• Disputes between operators and between operators and providers of services. • Disputes between providers and end-users, except those concerning payment of debts	• HAKOM intervention after 45 days of unsuccessful negotiations on request of the involved operators • HAKOM issues binding decision within 120 days from receiving the request • HAKOM decision must be implemented within 15 days from the day of its issue to the parties unless a different term is determined by decision.	The NRA decisions must be published in the Official Gazette and on its website, taking into account the confidentiality of business information.
FYROM	According to Article 122 of the Law on Electronic Communications, the NRA shall	• AEC shall apply the provisions of the Law on General Administrative Procedure to its dispute resolution procedures.	Article 122 of the Law on Electronic Communications

Country	Type of commercial disputes that can be resolved by NRAs	Dispute resolution procedures and deadlines	Publication of disputes by NRAs
	resolve disputes involving operators of communications networks and providers of communications services.	• AEC is obliged to resolve the dispute within 42 days from the date of receiving the proposal for initiation of a dispute resolution procedure. The deadline for resolution of the dispute may be extended if it is necessary due to the complexity of the procedure, by in no case shall exceed four months. • Disputes can be settled applying mediation or arbitration procedure. • Mediator chosen by the parties or by NRA within 7 days. • Arbitrators appointed by NRA Commission, the Minister and other interested parties for 5 years. • Result of arbitration is binding, final and enforceable. • AEC, during resolution of disputes, is obliged to take into consideration the objectives of ensuring effective competition and protection of users' interests in the market.	requires the NRA to publish decisions, taking into account the confidentiality of the business secrets of the parties.
Turkey	Under Article 18 of Law on Electronic Communications No. 5809, ICTA may resolve on a request from the one of the parties, disputes involving providers of telecommunications services and network operators regarding network access and interconnection.	Article 18, Law on Electronic Communications No. 5809: • The parties can apply to ICTA after two months of failed negotiations (in the case of denial of access and negotiation request, the application can be submitted to ICTA earlier). • ICTA can issue a binding decision in order to resolve the interconnection/access disputes within two months, except for special circumstances. • ICTA can determine the fees and conditions that will apply to access/interconnection agreements, including temporary fees.	Published on the NRA website only if deemed necessary by the NRA. As a rule, only the relevant parties to the dispute are informed about the decision.
Albania	According to Articles 22, 50 and 120 of the Law on Electronic Communications: • AKEP shall resolve disputes between undertakings providing electronic communications networks and services. • Dispute resolution procedures can be initiated by AKEP, at requests of either party if the undertakings fail to reach an agreement on access and interconnection within 45 days from receipt of the request; or • If the undertakings providing public communications networks fail to reach an agreement on joint use of facilities and assets.	Procedures and deadlines are based on Code of Administrative Procedures that allows a maximum of 3 months for dispute resolution. For access and interconnection disputes, AKEP issues a binding order that has to be implemented by parties within 1 month of the date of the Order. In cases where the undertakings cannot reach an agreement related to the payment/fee for the joint use of the infrastructure and equipments, AKEP, within 30 days from the date of request submission by any either concerned party, shall decide the amount of payment/fee in compliance with the respective regulation approved for this purpose.	All decisions of AKEP shall be published on its website.
Bosnia & Herzegovina	• Disputes between electronic communications network operators and/or providers of services.	Law on Communications, Article 16: • NRA intervention after 6 weeks of failed negotiations on request of one of the parties	No There is no obligation in Law on communications for publication of

Country	Type of commercial disputes that can be resolved by NRAs	Dispute resolution procedures and deadlines	Publication of disputes by NRAs
	• Notwithstanding the jurisdiction of civil courts, users or interested parties may refer to the NRA complaints that have not been satisfactorily resolved with the telecommunications operator, in particular complaints about the quality of service. The NRA may further specify the types of complaints it will handle and the method used.	• NRA issues binding decision within 6 (in exceptional cases 10) weeks from receiving the request However, in practice the NRA tries to use mediation in order to avoid the direct imposition of contractual terms and conditions.	disputes by the NRA.
Montenegro	Under Article 8 (paragraph 15) of the Law on Electronic Communications, the NRA resolves, in cooperation with institutions in charge of protection of competition and users, disputes arising among the participants in the electronic communications market, i.e.: • electronic communications network operators and/or service providers; • service providers and end users.	Articles 20, 33 and 34 of the Law on Electronic Communications: • NRA may resolve disputes between electronic communications network operators and service providers applying either mediation or arbitration rules. • NRA shall resolve the disputes on access and interconnection and on joint use of infrastructure and facilities, upon the request from one of the parties. • NRA must decide on a dispute within 30 days from the day of receiving the request.	Article 19 (paragraph 5) of the Law on Electronic Communications requires the NRA to publish decisions, taking into account the confidentiality of the business secrets of the parties. Parties in the procedure shall be supplied with the full report on the reasons on which the decision is based.
Serbia	Telecommunications Law, article 9: • Disputes between telecommunications operators about interconnection, special access and provision of leased lines • Disputes between operators and end users	Telecommunications Law, article 47: • NRA intervention after 3 months of unsuccessful negotiations on request of the parties • NRA issues binding decision within 60 days from receiving the request.	Under Article 47 of the Telecommunications Law, the NRA is required to maintain a database of all its decisions, including complaints relating to those decisions, as well as any other information of importance for the telecommunications sector. This database is available on the NRA website, including dispute resolutions, except confidential parts.
Kosovo	Law on Telecommunications 2003/16, section 11(2): • Disputes involving service providers, end users, owners of land and facilities. • Failure to reach an interconnection agreement (Law on Telecommunications, section 56, paragraph 7).	Law on Telecommunications 2003/16, section 11(2): • NRA may undertake dispute resolution procedure either on request of one of the parties or on its own motion. • NRA issues binding decision within 6 weeks from receiving the request. • Service providers must comply with the NRA decision within 30 days. NRA issued Regulation on Dispute Resolution in June 2007 (TRA Regulation No183/07 of June 11, 2007.	No

Table B.7 - Dispute resolution powers of the NRA

Notes:
Turkey: The new Law on Electronic Communications brings amendments to the dispute resolution procedure (e.g. the reduction of the duration from 4+2 months to 2 months). The Access and Interconnection Ordinance which includes the details is to be updated accordingly in the first half of 2009.

7. NRA accountability

Independence needs to be reconciled with measures to ensure that the regulator is accountable for its actions. Such measures may include establishing procedures whereby the NRA performance is reviewed against specific objectives, ensuring that the regulator provides a report of its activities and its use of financial resources.

Table B.8 shows the requirements for:

- publication by the NRA of an action plan setting specific targets and deliverables;
- reporting by the NRA of its activities and the use of financial resources (e.g., annual report); and
- review of the NRA performance by an independent body.

Country	Publication of an action plan	Financial and regulatory reporting requirements	Review of the NRA performance
Croatia	Yes According to Article 14 of the Electronic Communications Act, the NRA's annual work programme along with its annual activity report, annual financial plan and financial statement must be published on the NRA's website.	According to Article 7 of the Electronic Communications Act, the NRA is accountable to the Parliament for its work. According to Article 13 of the Electronic Communications Act, the NRA is obliged to submit its annual activity report not later than April 30 in the current year on its work during the previous year to the Parliament and to the government. The annual report shall in particular contain: • information about fulfilment of objectives and tasks established in the NRA's annual work programme • information about the development of the electronic communications and postal services markets • financial reports	According to Article 16 of the Electronic Communications Act, the NRA's financial reports shall be subject to annual audit performed by an independent authorized auditor. The NRA shall decide on the selection of the auditor in accordance with special audit regulations.
FYROM	Yes The annual report of the NRA, after its approval by Parliament, shall be available to the public. The report also contains the annual work program for the coming period.	According to Article 10 of the Law on Electronic Communications, the NRA is responsible for its work before Parliament. The annual report shall in particular contain: • Report on the NRA's work during the previous period; • Annual work program for the coming period; • Report on the status of assets in the universal service fund; and • Report on executing the annual financial plan of the NRA.	The NRA Commission adopts an Annual Financial Plan and submits it to the Parliament for approval. The Annual Financial Plan contains information on the revenues and costs, as well as audits and financial reports for the previous year and the anticipated capital and operational costs for the coming year. The audit is performed by an independent external auditor.
Turkey	Yes According to 'Bylaw on Organizational Structure, Duties and Working Rules and Procedures' and	Yes According to Article 7 of Public Financial Management And Control Law No. 5018, in order to ensure supervision in the acquisition and utilization of all types of public resources, the public shall be informed timely. Accordingly, the	There are three types of review imposed over the NRA: • Judicial Review by Council of State and reporting to the Commission of Planning

Country	Publication of an action plan	Financial and regulatory reporting requirements	Review of the NRA performance
	'Rules and Procedures on Preparation of Work Plans' adopted by the NRA Board, annual work plan for 2009 has been prepared and published as of January 2009 by the NRA (ICTA). The NRA's annual report also sets out activities completed and plans for future activities.	following are compulsory: • to clearly define the duties, authorities and responsibilities; • to prepare government policies, development plans, annual programs, strategic plans and budgets; to negotiate them with the authorized bodies; to carry out their implementation and to make the implementation results and the relevant reports available and accessible to the public; • to publicize the incentives and subsidies provided by the public administrations within the scope of general government, in periods not exceeding one year; • to establish public accounts in line with a standard accounting system and an accounting order in accordance with generally accepted accounting principles. In compliance with these rules, ICTA has published definition of its responsibilities, its annual work plan for 2009, including the information about its budget. In addition, a strategic plan of ICTA has been made available for public consultation and now is being reviewed.	and Budget under the National Assembly of Turkey. • Public (including public, consultations, annual work plans and annual reports) • Auditing: Court of Accounts, Inspection Council of Prime Ministry and the State Inspection Council of Presidency of Turkish Republic
Albania	Yes The NRA, AKEP, annual report that must be made available to the general public should contain a detailed work programme for the coming year.	Under Article 9 of the Law on Electronic Communications (Law No. 9918 of May 19, 2008) AKEP is accountable for its work before the Assembly. At the end of each year the NRA must submit to the Assembly a report on its activities during the year, its financial performance, a work programme for the coming year and implementation status of the universal service. According to article 117, of the Law, not later than six months before a financial year starts, AKEP must prepare a forecast of its operational cost fund and submit it to the Council of Ministers for approval. AKEP must keep full and accurate accounts of actual expenses, in compliance with the Albanian legislation on accounting.	The use of funds by the NRA is subject to review by the State Audit (High State Control).
Bosnia & Herzegovina	The NRA, RAK, publishes the Telecommunications Sector Policy adopted by the Council of Ministers that contains a detailed action plan on its web site. There are no requirements for publication of an action plan setting specific targets and deliverables for the NRA.	Law on Communications, Article 44 (4), (5): The NRA shall prepare an annual report of its finances and activities, and shall submit it to the Council of Ministers. The Council of Ministers shall consider the Agency's annual report and publish it not later than four months after the end of each financial year.	The use of funds by the NRA shall be subject to review by the Supreme Audit Institution and in addition audited by an independent auditor every year.
Montenegro	Yes Article 13 of the Law on Electronic Communications requires the NRA to submit for the government approval before November 1 of each year its financial plan and a work programme for the next calendar year. The financial plan must be also	Article 16 of the new Law on Electronic Communications requires the NRA to prepare an annual report on its activities together with its financial report. The reports must be approved by the government and published on the NRA's website.	Annual audit procedure of the NRA financial statements by an independent authorised auditor, appointed by the government, is defined in Article 14 of the Law on Electronic Communications.

Country	Publication of an action plan	Financial and regulatory reporting requirements	Review of the NRA performance
	submitted for the Assembly approval before December 1. The financial plan and the work programme must be made public.		
Serbia	Yes The NRA publishes an action plan on its web site at the beginning of each year. On January 15, 2009 the government adopted the Action Plan for implementation of the National Strategy for Development of Telecommunications. The Action plan defines priorities for liberalisation of Serbian telecommunications until 2010 and the responsibilities of mainly the Ministry of Telecommunications and Information Society and RATEL, the NRA.	Article 20 of the Telecommunication Law requires the NRA to prepare and to submit to the Government and to the National Assembly an annual report (including financial statements) on its activities, and in particular: • the development of telecommunications • the implementation of tariff policy principles pertaining to regulated services • the progress in realization of universal service, including an assessment of the degree to which users' needs have been satisfied; and • the allocation and assignment of radio frequencies for civilian use. The NRA must also make public, in the manner stipulated in the statutes, the following: • annual report (including financial statements) for each year; • financial plan for each year • information on the allocation and assignment of radio frequencies • information on public tenders for licenses, including the main terms and conditions • information about licences granted • decisions taken on licenses and concluded interconnection contracts • information and/or decisions pertaining to special tariff regimes and/or tariff policy, including changes in tariffs for regulated services; and • decisions on the numbering plan.	According to the Article 18 of the Telecommunication Law the financial plan of the NRA shall be approved by the Government. The financial plan shall be published in the manner stipulated by the Statutes of the Agency. The Agency shall have all of its revenue and expenditure accounts audited annually by an authorized independent auditor. The audited accounts shall be published not later than three months after the end of the relevant fiscal year. The NRA (RATEL) is established under the Telecommunications Law. The Ministry for Telecommunications and Information Society supervises the implementation of the Law and regulations adopted on the basis of this Law (Article 6 of Telecommunications Law).

Country	Publication of an action plan	Financial and regulatory reporting requirements	Review of the NRA performance
Kosovo	In June 2007, Telecommunications Sector Policy, proposed by the Ministry of Transport and Communications was approved by the government. This document provides a provisional timetable for the implementation of the various telecommunications tasks, mostly for 2007-2008. In the government of Kosovo's Telecommunications Sector Policy, Section 3.5.d1, *"... the TRA is directed to develop a realistic Action Plan to address the instances where previously mandated timelines and milestones have not been met and to revise associated timelines and milestones."*	Article 5 of the Law on Telecommunications requires the NRA, TRA, to submit its budget proposal for review and approval by the Assembly not less than two months prior to the commencement of each fiscal year. Not later than six months after the close of each fiscal year, TRA shall prepare and deliver to the Assembly an annual report containing financial details pertaining to the activities of TRA for the preceding year. An electronic version of such report shall be posted on TRA's official website. Under articles 16 and 17 of the Law on Telecommunications, TRA is required to submit on annual basis to the Assembly a report, covering the market entry barriers and competition conditions in the telecommunications sector and technical barriers to full conformity with the EU standards (mainly addressing spectrum and numbering aspects).	Review of the NRA accounts by the Supreme Audit Institution and in addition by an independent auditor, every year.

Table B.8 - NRA regulatory and financial reporting requirements and review procedures

Notes:

Serbia The financial plan for 2009 has not been approved by the government. It was the same situation with the financial plan for 2008 and RATEL was operating without formal approval of the financial plan by the government.

8. Appeal procedures

Article 4 of the Framework Directive sets out a requirement for effective mechanisms enabling any party affected by an NRA decision to submit an appeal against the decision to a body that is independent of the parties involved. It sets out a similar requirement of independence for the appellate body as exists for the NRA itself. The Article also establishes requirements for the appeal mechanism:

- The appellate body may be a court or a non-judicial body. In the latter case, the second appeal instance must be a court or a tribunal.
- An appeal of the NRA decision shall not automatically suspend the application of the appealed decision.
- The appeal body must be able to consider the merits of the case and not only procedural matters.

The timeframe for an appeal is important given the uncertainty and potentially retroactive effects.

Table B.9 provides an overview of the national appeal mechanisms against NRA decisions.

Country	Appellate body	Automatic suspension of the NRA decision on appeal?	Can the appellate body rule on merits of a case?	Third party rights of appeal?	Average duration of an appeal procedure
Croatia	Administrative Court	No	Yes	Yes, if it can prove that it has a legal interest in the case	5 years A party can appeal the NRA's decision within 30 days from the date of receipt of the decision. There is no time limit for appeal procedure set by law.
FYROM	Administrative Court Following amendments to the Law on Electronic Communications of August 19, 2008, the Commission of the AEC is no longer the first instance appeal body for decisions of the Director of the AEC. The decisions of the Director are now final in the administrative procedure and can only be appealed to the Administrative Court.	No Upon complainant's request, AEC may suspend the appealed decision pending a court final decision, in particular, if irreparable harm could be caused to the complainant by its enforcement. Before issuing suspension, AEC must consider public interest and possible harm to the opposing party. Suspension must be issued not later than within 3 days from the receipt of the request. If no suspension is issued by AEC, the complainant may appeal for suspension to the court.	No, the appeal body can only judge the correct application of the laws and applicable bylaws and the procedure.	Yes, if it can prove that it may be directly harmed by an annulment of the disputed decision.	According to article 20 of the Law on Administrative Disputes of May 19, 2006, a party can appeal the NRA decision within 30 days from the date of receipt of the decision. There is no time limit for appeal procedure set by law.
Turkey	Council of State According to Article 62of the Electronic Communications Law, appeals against ICTA decisions on the sector can be brought to the Council of State within 60 days from the announcement of the decisions. Disputes on concession and authorisation agreements could be brought before the Licence Coordination Board, which is established separately for each agreement and composed of the representatives of the NRA and the operator concerned. The decisions of	No Only upon complainant's request, the court may suspend the appealed ICTA decision	Yes	Yes	According to article 7 of the Law on Administrative Justice Procedure, a party can appeal the NRA's decision within 60 days from the date of receipt of the decision. There is no time limit for appeal procedure set by law.

Country	Appellate body	Automatic suspension of the NRA decision on appeal?	Can the appellate body rule on merits of a case?	Third party rights of appeal?	Average duration of an appeal procedure
	the Licence Coordination Board are not binding but advisory.				
Albania	Article 136 of the Law on Electronic Communications (Law No. 9918 of May 19, 2008): • An administrative appeal, e.g. against the fine imposed by the NRA inspectors, may be filed to AKEP Board within 10 days from the date of its imposition • AKEP Board decisions may be appealed to Albanian Court of First Instance (Tirana District Court)	• Yes – when an administrative appeal is made to AKEP Board, the decision is suspended for 30 days within which AKEP must take a definitive decision • No – when the appeal is submitted to the Court	Yes	Yes	• AKEP Board must decide on an appeal within 30 days from the appeal date. • AKEP Board decisions must be appealed to the Court within 30 days from the decision date. There is no deadline defined for the appeals to the First instance Albanian Courts. In practice, the procedures in the Court can take several years.
Bosnia & Herzegovina	Article 47 of the Law on Communications: • An administrative appeal against decisions of the Director General may be filed to the Council of RAK • Decisions of the Council of RAK may be appealed to the State Court of Bosnia & Herzegovina	No • Appeals against decisions of the Director General shall not suspend their effect. • RAK decision stands pending the Court's final decision unless suspension is granted by RAK upon complainant's request. If no suspension is issued by RAK, the complainant may appeal for suspension to the court.	Yes	Yes, if it can prove that it may be directly harmed by an annulment of the disputed decision.	• Council of RAK decides on an appeal within 30-60 days, depending on its scheduled sessions. • According to article 19 of the Law on Administrative Disputes, RAK decisions must be appealed to the Court within 60 days from the decision date. There is no deadline defined for the appeals to the Court. In practice, the procedures in the Court can take several years.
Montenegro	Article 19 of the Law on Electronic Communications of July 29, 2008: • An administrative appeal against decisions of the NRA may be filed to the Ministry of maritime affairs, transportation and telecommunications • Decisions of the Ministry can be appealed	No Appeals against decisions of the NRA shall not suspend their effect.	Yes	Yes, if it can prove that it has a legal interest in the case.	• According to the Law on General Administrative procedure, an appeal against the f the NRA decision may be filed with the Ministry not later than within 15 days from the date of receipt of the decision. The Ministry must decide on

Country	Appellate body	Automatic suspension of the NRA decision on appeal?	Can the appellate body rule on merits of a case?	Third party rights of appeal?	Average duration of an appeal procedure
	to the Supreme Administrative Court				an appeal within 2 months from the appeal date. • There is no deadline defined for the appeals to the Court. In practice, the procedures in the Court can take several years.
Serbia	Article 7 of the Law on Telecommunications: • An administrative appeal against the NRA decisions may be filed to the Managing Board of RATEL • Decision of the Managing Board of RATEL may be appealed to the Supreme Court	No Upon complainant's request, a suspension can be granted either by RATEL or by the Court.	Yes	Yes, if it can prove that it has a legal interest in the case.	More than one year
Kosovo	Article 11 of the Law on Telecommunications: • An administrative appeal against the NRA decisions may be submitted to the Managing Board of TRA for reconsideration • Decision of the Managing Board of TRA may be appealed to the Administrative Court	Yes	Yes The appeals body can rule both on the merits of the case and on the correct application of the law.	Yes, if it can prove that it has a legal interest in the case.	More than one year

Table B.9 - Appeal procedures against NRA decisions

9. NRA transparency and participation

Article 3 of the Framework Directive requires NRAs to exercise their powers impartially and transparently. Lack of transparency undermines legal certainty and increases the potential for political interference. Furthermore, according to the commitment to participation, regulatory processes should allow formal consultation of the stakeholders before decisions are made.

Table B.10 examines the transparency of the NRA decision-making process and the ability of all stakeholders to contribute to decision-making. The criteria for assessing the NRA transparency include:

- the existence of a consultation process and the scope of the covered decisions or issues of general interest;
- the time given for comments;
- the existence of a period for reply comments; and

- the obligation to publish adopted decisions with a reasoned opinion.

Country	NRA policies for public consultations on specific decisions	Time period for comments	Publication of the NRA decisions
Croatia	Article 22, Electronic Communications Act of June 19, 2008 (Official Gazette 73/2008) Public consultation procedure is foreseen before adopting implementing legislation, NRA decisions and other administrative acts with significant influence on the relevant market, as well as the NRA Statute, the annual financial plan and work programme.	Not less than 30 days	Yes, on the NRA website
FYROM	Article 105 of the Law for Electronic Communications requires the NRA prior to recommending regulations or adopting regulations to publish the proposed instrument and seek the submission in writing of opinions from all interested parties. These must be published prior to adoption of the measure. AEC may also hold public hearings on proposed regulations, at which representatives of interested parties may be invited to present their views and opinions.	Not less than 30 days	Yes, on the NRA website
Turkey	Draft legislation prepared by the NRA usually involves the participation of operators through joint committees. A consultation mechanism is established and documents on issues that have an effect on the sector are published on the NRA's web site and also sent to the relevant operators, industry NGOs, etc. The responses are published and taken into consideration by the NRA. Draft legislation is also published on the web site.	Usually 30 days	Currently there is no legal obligation for NRA to publish all its decisions. It is decided on case by case basis.
Albania	Article 35, Law on Electronic Communications (Law No. 9918 of May 19, 2008 requires AKEP to conduct the public consultation with the interested parties regarding the conclusions reached on market designation and market analysis. Article 110 contains a general requirement for AEPC to consult on regulatory documents and decisions that will significantly influence electronic communications market. If necessary, AKEP may also hold a public hearing inviting representatives of the interested parties to present their opinions on the proposed regulatory documents. After the expiry of the consultation period, AKEP shall make publicly available the obtained opinions, keeping the confidentiality of information.	60 days for market analysis, not shorter than 30 days otherwise	All decisions taken by the NRA after public consultation with answers to the comments by interested parties must be published its web site
Bosnia & Herzegovina	Article 38 of the Law on Communications requires RAK to publish its draft regulations (rules) for consultation.	At least 14 days	Official Gazette and the NRA's website
Montenegro	Article 8 of the Law on Electronic Communications requires the NRA to carry out open consultative procedures allowing all interested parties to comment on the initiatives, measures, decisions and the acts prepared, proposed or adopted.	Usually 3 months	Yes, on the NRA website
Serbia	On August 28, 2007 the Managing Board of RATEL adopted guidelines for public consultation procedures for adoption of its regulations.	15 to 30 days	All regulations are published in the Official Gazette, and all other decisions are published on the NRA's web site.
Kosovo	The NRA may initiate public consultation on all substantive telecommunications matters, either on its own initiative or upon the written request from the Ministry (Law on Telecommunications, section 10(1)).	30 days	Yes, on the NRA website

Table B.10 - Transparency and participation in the NRA decision-making

10. Frequency management

Table B.11 provides information on the bodies which are responsible for:

- frequency allocation, including the decision on the national frequency plan; and
- frequency assignments, covering individual authorisations to use frequencies in the national frequency plan. Frequencies for the military sector are normally decided outside this framework.

Country	Frequency allocation	Frequency assignment	Legal basis
Croatia	Ministry of the Sea, Transport and Infrastructure (on the basis of a proposal by the NRA)	Croatian Post and Electronic Communications Agency (HAKOM, the NRA)	Articles 81-82, Electronic Communications Act of June 19, 2008 (Official Gazette 73/2008)
FYROM	Agency for Electronic Communications (AEC, the NRA)	Agency for Electronic Communications (AEC, the NRA)	Law on Electronic Communications, Chapter 6 Plan of radio frequency band allocations (No.13/70, December 28, 2005) Plan of radio frequency assignments and utilisation (No. 11-123/1, 09.10.2007)
Turkey	Information Technologies and Communications Authority (ICTA, the NRA)	• Information Technologies and Communications Authority (ICTA) assigns spectrum for telecommunications. • ICTA allocates frequency blocks for broadcasting to the Radio and Television Supreme Council (RTUK). • RTUK assigns spectrum to individual broadcasters	Law on Electronic Communications No. 5809 of November 5, 2008
Albania	National frequency plan is adopted by the Council of Ministers, upon the proposal of the Minister of Public Works, Transport and Telecommunications. The proposal is developed in cooperation with the NRA, the National Radio Television Council, the Ministry of Defence, the Ministry of Interior and State Informative Service.	• Albanian Authority of Electronic and Postal Communications (AKEP, the NRA) – for frequencies allocated to civil purposes, with the exception of broadcasting. • AKEP develops the frequencies utilization plan, for the frequencies under its administration, prepared in compliance with the National frequency plan. • National Radio and Television Council (KKRT) – for frequencies allocated to broadcasting.	Article 62-64 of Law on Electronic Communications (Law No. 9918 of May 19, 2008)
Bosnia & Herzegovina	Communications Regulatory Agency (the NRA)	Communications Regulatory Agency (the NRA)	Articles 30-32of Law on Communications, Official Gazette of Bosnia & Herzegovina No 31/03 of October 21, 2003,
Montenegro	Government of Montenegro (on the basis of a proposal of the NRA to the Ministry)	Agency for electronic communications and postal services (the NRA) Under the new Law on Electronic Communications of July 29, 2008, the Agency for electronic communications and postal services, the NRA was made the sole authority responsible for spectrum assignment, including electronic communications and broadcasting.	New regime: Articles 4 and 8 of Law on Electronic Communications of July 29, 2008 (Official Gazette No. 50/2008)

Country	Frequency allocation	Frequency assignment	Legal basis
Serbia	The Ministry of Telecommun-ications and Information Society decides on the frequency allocation plan and adopts frequency assignment plan (on the proposal of the Republic Telecommunication Agency, the NRA)	Republic Telecommunications Agency (RATEL, the NRA)	Telecommunication Law (Official Gazette of Republic of Serbia, No 44/03 and 36/06) and Frequency Allocation Plan (Official Gazette of Republic of Serbia, No 112/04)
Kosovo	TRA, subject to review and approval by Kosovo Assembly	• TRA for telecommunications • TRA in coordination with Independent Media Commission (IMC) for broadcasting	Articles 22 and 36 of Law on Telecommunications Law No. 03/L-085 of June 13, 2008 amending UNMIK Regulation No 2003/16 on the promulgation of the Law on Telecommunications deletes references to UNMIK and its Frequency Management Office (FMO) and SRSG (Special Representative of the Secretary General).

Table B.11 - Frequency allocation and assignment

Notes:
FYROM: The Plan of radio frequency bands allocation establishes the radio frequency bands allocation to certain radio services and enables technically and economically optimal planning and utilization of radio frequencies, taking into account that the radio frequency spectrum and the geostationary orbit are naturally restricted resources. The Plan of radio frequency assignments and utilisation determines the conditions and manner of radio frequency use to certain radio frequency bands. The Plan establishes the channel arrangement of the frequency bands for certain radio services.

11. Regulatory framework for broadcasting networks

The EU 2002 *acquis communautaire* brought all forms of electronic communications networks under the same regulatory framework. This was driven by the convergence of new digital technologies so 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. While the EU framework does not rule out that regulatory tasks can be shared among two or more authorities in a well-defined manner, the thrust of this legislation is to bring all forms of electronic communications networks, including broadcasting networks, under a common regulatory framework.

Table B.12 shows whether the spectrum assignments for broadcasting networks are covered by the same regulatory framework as electronic communications, listing:

- the authorities involved in regulating broadcasting content;
- the legal basis for broadcasting regulations; and
- whether frequency assignments for broadcasting are carried out by the same authority as for electronic communications.

Country	Broadcasting authority responsible for content issues	Legal basis	Authority responsible for frequency assignments to broadcasting	Cooperation agreement between NRA and broadcasting authority? (e.g. on spectrum issues, licensing, etc.)
Croatia	Council for Electronic Media	Law on Electronic Media, Official Gazette No. 122, July 30, 2003	HAKOM, the NRA	No
FYROM	National Broadcasting Council	Law on broadcasting activity of November 29, 2005 Law amending and supplementing the Law on broadcasting activity of February 12, 2007	AEC, the NRA	Yes Memorandum for cooperation signed in October 2007
Turkey	Radio and Television Supreme Council (RTUK)	Law on the Establishment of Radio and Television Enterprises and Their Broadcasts No.3984 of April 20, 1994 (with amendments)	ICTA, the NRA, allocates frequency blocks for broadcasting to RTUK. RTUK assigns spectrum to individual broadcasters	Yes Protocol on determination of the areas of competencies, responsibilities and co-operation signed on March 24, 2006
Albania	National Radio and Television Council (KKRT)	Law on Radio and Television No. 8410 of September 30, 1998 (with amendments)	AKEP, the NRA allocates the block of broadcasting frequencies to National Radio and Television Council (KKRT). KKRT assigns broadcasting spectrum to individual broadcasters, although they must apply to AKEP for spectrum for transmission links between sites.	No
Bosnia & Herzegovina	Communications Regulatory Agency (RAK)	Law on Communications (Official Gazette No. 33/02, November 12, 2002)	RAK, the NRA	RAK is a converged regulator, responsible for telecommunications and broadcasting
Montenegro	Broadcasting Agency (ARD)	Broadcasting Law of April 2004	Under the Law on Electronic Communications of July 29, 2008, the Agency for electronic communications and postal services, the NRA is the sole authority responsible for spectrum assignment.	Yes
Serbia	Republic Broadcasting Agency (RRA)	Broadcasting Law of July 2002 (with amendments)	RATEL, the NRA	There is a protocol between the two agencies which defines the process of issuing the permits for broadcasters, and the process for their subsequent control.
Kosovo	Independent Media Commission (IMC)	Law on Independent Media Commission and Broadcasting of July 8, 2005	The Law on Independent Media Commission and Broadcasting foresees that the IMC shall coordinate the assignment of broadcasting spectrum with TRA. The practical aspects of this coordination have not been defined yet.	No

Table B.12 - Regulatory treatment of broadcasting networks

Notes:
FYROM: The Broadcasting Council grants a licence to broadcast on the basis of a public competition. The licence is an authorization providing the right to transmit and to distribute a radio or television programme service intended for public reception, regardless of the technical means of transmission. The NRA, on the basis of the decision to grant a broadcasting licence issues a licence for the use of the radio frequency.

12. Digital switchover plans

After the switching off of terrestrial analogue television services, the frequencies will be released and allocated to other applications. Table B.13 shows:

- the planned date for the analogue switch-off;
- whether the review/consultation on the digital dividend (DD) has been launched;
- what, if any, are the applications "officially" intended to be allocated DD frequencies; and
- comments on national debate and on spectrum refarming costs and complexity.

Country	Date for analogue switch-off	Review underway	Applications to benefit from DD	Comments
Croatia	2011	Yes	• UHF band: DVB-T (more SDTV content, introduction of HDTV content), DVB-H, and IMT2000 in upper UHF band • VHF band: DVB-T, DVB-H, T-DAB or DMB	On July 31, 2008 the Government adopted the Strategy for switchover from analogue to digital TV broadcasting.
FYROM	2012	No	Frequencies above 790 MHz will be allocated to other applications. Most likely to DVB-T, mobile DVB-H and interactive services	The Broadcasting Council on November 27, 2007 adopted the Strategy for the Development of the Broadcasting in the Republic of Macedonia for the period 2007-2012. Accordingly, the switchover from analogue to digital TV broadcasting was to begin in 2008 and to be completed by 2012. The Broadcasting Council and the NRA created a joint body to develop the procedure to award the first multiplexes for digital TV broadcasting transmission.
Turkey	2014	No	In the beginning, most likely DVB-T; in the future, mobile services, mobile DVB-H and interactive services.	On March 2005, the Radio and Television Supreme Council adopted the Strategy and Application Schedule for switchover from analogue to digital TV broadcasting. Final decision will be taken after ITU WRC-2011. Currently, trials for DVB-T broadcasting have been launched in the big cities.
Albania	No decision 2012 (proposed)	No	-	The draft strategy for digital switchover prepared by National Council of Radio Television is under public consultation.
Bosnia & Herzegovina	December 2011	No	-	DTT Forum was established in May 2006 for drafting the strategy. Following a public consultation completed in February 2009, the draft Strategy for analogue to digital switchover was submitted to the Council of Ministers for approval on March 17, 2009.

Country	Date for analogue switch-off	Review underway	Applications to benefit from DD	Comments
Montenegro	December 31, 2012	No	DVB-T, interactive services	On April 10, 2008 the Council of the Broadcasting Agency adopted a strategy for switchover from analogue to digital broadcasting systems.
Serbia	No decision April 4, 2012 (proposed)	No	Most likely, DVB-T, interactive services	In October 2008, the Ministry of Telecommunications and Information Society established a working group to develop the strategy with action plan for switchover from analogue to digital broadcasting of radio and TV Programmes. On January 22, 2009 the government adopted the first document finalised by the working group on basic principles of the strategy for switchover from analogue to digital broadcasting of radio and television programmes. On May 22, 2009 the Ministry published for consultation the draft Strategy and the Action Plan for analogue to digital switchover. The consultation runs until June 12, 2009.
Kosovo	2012	No	Most likely DVB-T, mobile DVB-H and interactive services	No information has been released. It is under discussion at the Parliamentary Commission on Media in association with the new draft law on Digital Transmission.

Table B.13 - Digital switchover plans

13. Cooperation between NRA and the national competition authority

The EU 2002 *acquis communautaire* for electronic communications applies during the transition from a regulated monopoly to normal competition, governed only by general competition law. Sector specific ex ante regulation and competition law serve as complementary instruments to achieve their respective policy objectives in the electronic communications sector and to address the lack of effective competition. At the same time, a principle underlying the regulatory framework is that ex ante regulation should only be imposed where competition law remedies would be insufficient and rolled back when they are no longer required.

Furthermore, the use of sector specific regulation, when it is found to be justified, relies extensively on the competition law principles in defining relevant markets that are susceptible to ex ante regulation, in assessing market dominance and in formulating remedies to address anticipated competition law breaches.

NRAs are advised to consult with their national competition authorities (NCAs) when deciding whether the use of both complementary regulatory tools is suitable to deal with a specific topic, or whether competition law instruments are sufficient. NRAs are also required to carry out analysis of the relevant markets in close collaboration with NCAs. In a practical application, it is considered advisable for both authorities to conclude an agreement covering the scope of their cooperation in the electronic communications sector and the division of specific responsibilities.

Table B.14 examines the degree of cooperation established between NRAs and NCAs.

Country	Competition authority	Formal agreement between NRA and Competition Authority
Croatia	Croatian Competition Agency (CCA)	On July 14, 2006 CCA and the NRA concluded an agreement on co-operation in the area of competition law in telecommunications markets. Under the 2003 Telecommunications Law, certain activities were excluded from the jurisdiction of the CCA. Determining the existence of a dominant position and any abuse of dominance in telecommunications markets is the exclusive responsibility of the NRA. However, CCA remains responsible for anti-competitive agreements between undertakings and merger control in telecommunications markets. In order to eliminate any possible conflict of jurisdiction, the agreement specifies the methods of

Country	Competition authority	Formal agreement between NRA and Competition Authority
		communication and coordination between the two authorities. According to the Electronic Communications Act of 2008, HAKOM and CCA cooperate in the assessment of mergers and anti-competitive agreements between operators under article 68 and in the market analysis procedure under article 52.
FYROM	Commission for Protection of Competition	The NRA and the Commission for Protection of Competition signed a Memorandum of Cooperation in February 2007. The Commission for Protection of Competition is responsible for enforcing the Law on Protection of Competition (Official Gazette No. 04/05) in general, including the electronic communications sector. Makedonski Telekom, however, expressed concerns 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 particular regarding its reference wholesale offer for leased lines.
Turkey	Competition Authority	There is no formal agreement, but article 6 of the Electronic Communications Law of November 5, 2008 contains provisions clarifying the cooperation between the two authorities. In particular, ICTA, the NRA is required to take the opinion of the Competition Authority on the issues regarding the breach of competition in electronic communications sector. Besides, the law also states that the Board of the Competition Authority while performing examinations and studies and making any decisions on electronic communications sector, including decisions about mergers and takeovers, must take into consideration the ICTA's view and the regulatory procedures of the ICTA.
Albania	Competition Authority	Memorandum of Understanding was signed between the NRA and the Competition Authority under the previous Telecommunications Law. Cooperation is also foreseen under the provisions of Articles 12 and 38 of the new Electronic Communications Law. A new memorandum is now being prepared.
Bosnia & Herzegovina	Competition Council of Bosnia & Herzegovina	No
Montenegro	Department for the Protection of Competition (established in November 2007)	No Cooperation between the NRA and the Competition Authority is foreseen under article 8 (15) of the Law on Electronic Communications.
Serbia	Competition Commission	No The Competition Commission was created by the Law on the Protection of Competition (Official Gazette, No. 79/05). Article 10 of the Telecommunications Law states that the NRA is authorized to prevent anti-competitive or monopolistic activities and behaviour of public telecommunications operators, unless they are subject to procedures conducted by the Competition Commission.
Kosovo	Kosovo Competition Commission (established on November 7, 2008)	The NRA is responsible for competition in the electronic communications sector.

Table B.14 - Cooperation between the NRA and the competition authority

C. Market access conditions in electronic communications

The information in this section reflects the situation as at May 1, 2008, except where otherwise stated.

This section provides information on the status of liberalisation and on the frameworks for authorisations for:

- public fixed telecommunications networks;
- voice telephony services;
- data services.

It also provides an overview of competition in the fixed and mobile markets.

1. Liberalisation of public fixed telecommunications networks and services

Table C.1 summarises the legal framework for the liberalisation of public fixed telecommunications networks and services in three markets:

- local;
- domestic long distance; and
- international services.

Practical implementation can be assessed, for example, by the number of licensed operators and by the distribution of numbering resources shown in Table A.10, Figure 19 and Table A.11.

Country	Liberalisation of public fixed voice telephony networks and services			Legal basis/comment
	Local	Domestic long distance	International	
Croatia	Liberalised from January 1, 2003	Liberalised from January 1, 2003	Liberalised from January 1, 2003	Telecommunications Act of 2003 Electronic Communications Act of June 19, 2008 introduced a general authorisation regime for all types of service.
FYROM	Liberalised from March 2005	Liberalised from March 2005	Liberalised from March 2005	Law for Electronic Communications of March 2005 (with amendments) introduced full liberalisation and general authorisation regime for all types of service.
Turkey	Formally liberalised from July 2005	Liberalised from January 2004	Liberalised from January 2004	Law No. 4502 of January 29, 2000, abolished and replaced by the new Electronic Communications Law No. 5809 of November 10, 2008. Provisions on the new authorisation regime will enter into force on May 10, 2009. Licensing framework for local public fixed voice telephony networks and services under old Law No. 4502 was adopted in November 2008, but no licences have been issued so far.
Albania	Rural areas: liberalised from February 1998. Urban areas: liberalised from April 2007, through regional licences	Liberalised from July 2003	Liberalised from January 2005	Law No. 8287 of February 18, 1998 liberalised rural local network provision. This was replaced by Law No. 8618 of June 14, 2000. Council of Ministers Decision No. 464 of July 3, 2003 liberalised domestic long-distance and international services. Law No. 9637 of November 6, 2006 introduced the concept of regional licensing for rural and urban areas, for both local and domestic long-distance services, in effect completing liberalisation. The NRA adopted the implementing rules on April 2, 2007. In practice, no alternative operators were licensed to provide either international or local urban services.

Country	Liberalisation of public fixed voice telephony networks and services			Legal basis/comment
	Local	Domestic long distance	International	
				Law No. 9918 of May 19, 2008 on Electronic Communications in the Republic of Albania introduced a general authorisation regime for all types of service.
Bosnia & Herzegovina	Liberalised from July 1, 2002	Liberalised from July 1, 2002	Liberalised from January 1, 2006	Telecommunications Sector Policy approved by Council of Ministers in March 2002.
Montenegro	Liberalised from January 1, 2004	Liberalised from January 1, 2004	Liberalised from January 1, 2004	Telecommunications Law of 2000 (Official Gazette No. 59/2000).
Serbia	Formally liberalised from June 9, 2005	Formally liberalised from June 9, 2005	Formally liberalised from June 9, 2005	Articles 32 and 109 of Telecommunication Law of April 2003 granted Telekom Srbija exclusive rights for all fixed services until June 9, 2005. No licences for provision of public fixed voice telephony networks and services have been issued so far.
Kosovo	Liberalised from May 2003	Liberalised from May 2003	Liberalised from January 2008	Liberalisation formally introduced by Law on Telecommunications (UNMIK Regulation 2003/16) of May 2003. The licensing framework was implemented in 2006, following the approval of Regulation on Licensing and Authorisations by TRA Board decision of September 7, 2005.

Table C.1 - Liberalisation of public fixed telecommunications networks and services

2. Liberalisation of data networks and services

Table C.2 shows the status of liberalisation of data networks and services.

Country	Liberalisation status for data networks and services		Legal basis
	National	International	
Croatia	Liberalised from 1999	Liberalised from 1999	Law on Telecommunications of 1999 (Official Gazette No. 76/99)
FYROM	Liberalised from February 1998	Services – Liberalised from February 1998 Networks – Liberalised from April 2000	Articles 23, 24 and 25 of the Telecommunications Law of 1996 (Official Gazette Nos. 33/96, 17/98, 28/2000, 4/2002 and 37/2004). Until April 2000 there was a requirement to use international leased lines from the incumbent operator.
Turkey	Services – Liberalised from June 1994 Networks – Liberalised from January 2004	Services – Liberalised from June 1994 Networks – Liberalised from January 2004	Article 2/c, Telegram and Telephone Law No. 406 of February 4, 1924, abolished and replaced by the new Electronic Communications Law no 5809 of November 10,2008
Albania	Liberalised from 1998	Liberalised from 1998	Article 4, Law No. 8287 of February 18, 1998
Bosnia & Herzegovina	Liberalised from July 1, 2002	Liberalised from July 1, 2002	Telecommunications Sector Policy approved by Council of Ministers in March 2002
Montenegro	Liberalised from January 1, 2004	Liberalised from January 1, 2004	Article 27 of the Telecommunications Law of 2000 (Official Gazette No. 59/2000)

Country	Liberalisation status for data networks and services		Legal basis
	National	International	
Serbia	Services – April 2003 Networks – June 2005	June 2005	Articles 32 and 109 of Telecommunication Law of April 2003 granted Telekom Srbija exclusive rights for all fixed services until June 9, 2005, except for Internet and Cable TV services. Until June 9, 2005 there was a requirement to use international leased lines from the incumbent operator.
Kosovo	Liberalised from May 2003	Services - May 2003 Networks – January 2008	First ISP authorisations issued to Dardanet (PTK subsidiary), IPKOnet and Kujtesa on May 18, 2005 at one-off fees of €150,000. The present authorisation framework (with a €5,000 one-off licence fee) implemented in 2006 following the approval of Regulation on Licensing and Authorisations by a TRA Board decision of September 7, 2005.

Table C.2 - Liberalisation of data networks and services

3. Authorisation regime for electronic communications services

Article 3 of the Authorisation Directive establishes a general authorisation regime for the provision of electronic communications networks and services. Undertakings may only be required to notify the intention to commence the provision of electronic communication networks or services and to submit information required to allow the NRA to keep a register or list of providers. There is no requirement to obtain an explicit decision by the NRA before starting activities. Individual rights of use may be required, however, for the use of radio frequencies and numbers. Article 5 of the Authorisation Directive establishes that EC member states should grant such rights upon request, also ensuring an efficient use of those resources.

The provision of electronic communications networks and services, under either a general authorisation or an individual licence, may be subject to authorisation fees. In many countries, such fees were often quite high in the period immediately after the ending of monopoly rights. This level of fees may have been triggered by the perception that the telecommunications sector represented an easy source of revenues for the state, as much as protection of the state-owned incumbent operator. Regardless of the purpose, high authorisation fees are a barrier to market entry and send a signal that the market is not yet fully liberalised.

The EU regulatory framework requires authorisation fees to be limited to a level necessary to cover the administrative costs of the regulatory authority. Only those fees that are paid for access to limited resources may deviate from this criterion. In practice, the exceptions are for:

- radio frequencies, where demand exceeds supply.
- numbers. Normally, the national numbering plan must be managed so that there are enough numbers for all operators. Since the potential numbering space available is unlimited, the only limited resource in the longer term is special short numbers represented by a limited number of digits. The other constraint is the disruption caused by the need to change existing numbers.
- rights of way. In theory, these can be a limited resource under certain circumstances but normally, the availability of land and rights of way does not represent a limited resource.

Table C.3 describes the authorisation regimes, including:

- authorisation types defined in the national legislation: individual authorisation/licence; class licence, general authorisation with/without notification to the NRA;
- networks and services covered by the specific authorisation type;
- authorisation charges or other administrative fees paid by authorised undertakings (one-off and annual fees);
- authorisations to use limited resources such as spectrum and numbers are not covered in this table. However, where mobile networks are subject to specific authorisation requirements (e.g., spectrum licence plus individual authorisation to offer public services), they are listed as a separate authorisation type.

Four countries, including Croatia, FYROM, Montenegro, and Albania, have adopted a general authorisation regime for provision of electronic communications networks and services with a notification to the NRA, and only issue individual rights of use for limited resources, such as frequencies and numbers.

In Montenegro, the implementing legislation on the authorisation framework under the new Law on Electronic Communications (Official Gazette of Montenegro, No.50/2008) had to be adopted within six months from the entry into force of the law on August 27, 2008. This process, however, has been delayed. In particular, the specific registration charges and administrative fees still have to be approved by the regulator in coordination with the ministry. In the meantime, the existing operators continue performing their activities on the basis of the individual licences issued under the previous Telecommunications Law (Official Gazette of the Republic of Montenegro, No.59/2000).

The remaining countries still require the granting of individual or class licences for the provision of most types of electronic communications services and networks.

In Turkey, the recent adoption of the new Electronic Communications Law formally introduced a new framework, based on a general authorisation regime. However, a transition period until the full implementation of the new framework is envisaged, since the new framework will not enter into force until May 10, 2009 and the concession and authorisation agreements awarded before the adoption of the new Law will be valid until their expiration or termination.

Country	Authorisation type:	Networks/services	Authorisation charges and administrative fees	
			One-off fees	Annual fees
Croatia	General authorisation with notification to the NRA	All electronic communications services and networks, including public telecommunications services in fixed and mobile networks, leased lines, cable TV services and PMR services, Internet access, VoIP, value added services and wireless access.	None	0.32% of annual revenue
FYROM	General authorisation with notification to the NRA	Public electronic communications services without use of spectrum	None	Annual market supervision fees are up to 0.5% of annual gross revenues earned from the provision of public electronic communications networks and services. However, the fee may not exceed €250,000.

Country	Authorisation type:	Networks/services	Authorisation charges and administrative fees	
			One-off fees	Annual fees
				Based on the total annual revenue, providers are divided into 5 categories: • Up to MKD 1m (€16,000) - 0.07% • MKD 1m - MKD 10m (€16,000 - €160,000) - 0.14% • MKD 10m - MKD 100m (€160,000 - €1.60m) - 0.21% • MKD 100m - MKD 500m (€1.60m - €8.1m) - 0.28% • Above MKD 500m (€8.1m) - 0.35%
Turkey	Concession agreements	Public telecommunications services and infrastructure using spectrum and numbers and which are national in scope	Determined through a public tender procedure	Administrative fee is 0.35% of annual net sales
	Authorisation agreements	Operators with more than 50% state ownership: Turksat (satellite operator)	No authorisation fee	Turksat pays 0.35% of annual net sales while the Directorate-General of Coastal Safety does not pay a fee
	Individual licences	1st Type Telecommunication Licence: Public telecommunications services using fixed networks, leased lines, cable TV services and PMR with regional or local coverage, based on the allocation of scarce resources to a *limited* number of operators	Determined by the Council of Ministers	Administrative fee is 0.35% of annual net sales
		2nd Type Telecommunication Licence: Public telecommunications services using fixed network (including long distance telephony services (A, B and C-type)), leased lines, cable TV, satellite services and PMR with national or regional coverage, based on the allocation of scarce resources to an *unlimited* number of operators.	• A-type (CPS services) - TRY 571,446 (€286,000) • B-type (CS services) - TRY 253,976 (€127,000) • C-type (calling cards services provided through a 10-digit access code) - TRY 126,988 (€64,000) For other services, the one-off fee depends on the service category and the geographical coverage, with a maximum of TRY 571,446.65 (€294,560) for cable TV services in Marmara Region	Annual fee is 0.5% of net sales, plus an administrative fee of 0.35% of net sales.
	General authorisation with notification to the NRA	All other services including Internet access, value added services and public WLAN (Wi-Fi) services.	TRY 2,730.00 (€1,407)	Annual authorization fee is TRY 2,730 (€1,407) No administrative fee.
	On May 10, 2009 the provisions of the Electronic Communications Law No. 5809 introducing general authorisation regime with a notification to the NRA will enter into force. Implementing legislation for the new authorisation regime is drafted by the NRA.			

Country	Authorisation type:	Networks/services	Authorisation charges and administrative fees	
			One-off fees	Annual fees
	Operators who were authorised under the previous regime through an individual licence or a general authorisation will be regarded as having been notified to ICTA and assigned the rights of use when required. On the other hand, authorisation and concession agreements, which were signed before the entry into force of the new law, will remain in force until their termination due to expiry (i.e. until 2029), annulment, cancellation or a termination for any other reason.			
Albania	General authorisation with notification to the NRA	All electronic communications networks and services, including internet access, VoIP and value added services.	None	Annual fees may not exceed 0.5% of annual gross revenue of the previous year
Bosnia & Herzegovina	Individual licence	Fixed and mobile public telephony networks and services (licences issued to the three incumbent operators)	BAM 1,000 (€511)	Public fixed telephony network and services: BAM 500,000 (€255,600) Public mobile GSM networks and services: BAM 600,107 (€306,775)
	General (class) licence	Public fixed telephony services	BAM 1,000 (€511)	BAM 70,000 (€35,800)
		Public fixed telecommunication networks	BAM 1,000 (€511)	• local: BAM 5,000 (€2,600) • regional: BAM 10,000 (€5,200) • national: BAM 50,000 (€26,000)
		Provision of Internet services	BAM 500 (€255)	BAM 4,000 (€2,100)
Montenegro	General authorisation, with notification to the NRA	All publicly available electronic communications and services	€1,000	Around 1% of annual revenue for 2009. To be approved after EKIP receives financial statements from the registered operators for 2008. Under Article 32 of the Law on Electronic Communications (Official Gazette of Montenegro, No.50/2008) annual fees may not exceed 1.5% of annual gross revenue of the previous year
Serbia	Individual licence (issued for services that require use of numbers or frequency resources)	Public mobile telecommunications network services using spectrum	RSD 25,000 (€320) licence application processing fee One-off fee determined through a public tender procedure Minimum is set by the Ministry	• RSD 70,000,000 (€900,000) in the first year of operations • 0.9% of annual revenues thereafter
		Public voice services offered on a commercial basis as real time voice transfer between network termination points	RSD 25,000 (€320) licence application processing fee One-off fee determined through a public tender procedure Minimum is set by the Ministry	• RSD 20,000 (€256) for every 1000 subscribers in the first year • 0.1% of annual revenues thereafter
		Public data transmission services provided through a public data transmission network	RSD 25,000 (€320) licence application processing fee	• RSD 25,000 (€320) for every 100 subscribers in the first year • 0.5% of annual revenues thereafter

Country	Authorisation type:	Networks/services	Authorisation charges and administrative fees	
			One-off fees	Annual fees
			One-off fee determined through a public tender procedure Minimum is set by the Ministry	
		Cable distribution network services for distribution of radio and television programs, or any other telecommunications services, based on wireless access	RSD 25,000 (€320) licence application processing fee One-off fee determined through a public tender procedure Minimum is set by the Ministry	• RSD 30,000 (€384) for every 500 subscribers in the first year • 0.2% of annual revenues thereafter
		Paging services	RSD 25,000 (€320) licence application processing fee One-off fee determined through a public tender procedure Minimum is set by the Ministry	• RSD 10,000 (€128) for every 1000 subscribers in the first year • 0.1% of annual revenues thereafter
		Internet services based on own fixed wireless access infrastructure	RSD 25,000 (€320) licence application processing fee One-off fee determined through a public tender procedure Minimum is set by the Ministry	• RSD 50,000 (€640) for every 1000 subscribers in the first year • 0.1% of annual revenues thereafter
		Other services using numbers from the National Numbering Plan	RSD 25,000 (€320) licence application processing fee One-off fee determined through a public tender procedure Minimum is set by the Ministry	• RSD 50,000 (€640) in the first year • 0.1% of annual revenues thereafter
	Authorisation (class licence) issued on the application to the NRA	Access and transport networks for which an individual licence is not required, provision of Internet services; value added services; closed user group services, call back services, cable TV network services, VoIP services without use of numbers	RSD 10,000 (€128) notification processing fee	0.1% of annual revenues and not less than RSD 50,000 (€640)
Kosovo	Individual licence	Public telecommunications services using fixed network, VoIP	National fixed telephone services licence: €87,500 International telecommunications facilities licence: €50,000 International telecommunications services licence: €35,000 Internet services: €5,000	0.3% of gross annual turnover attributable to the licensed activity

Table C.3 - Authorisation regimes for electronic communications networks and services

Notes:	
Turkey:	Mobile communications are subject to a further set of taxes, which include the Special Communication Tax, a Handset License Fee and a Handset Usage Fee (paid by the end user) and the Treasury Share Premium (paid by the operator) – a total of over 60% of end user annual revenue. Provisions on the general authorisation regime under the new Electronic Communications Law will enter into force on May 10, 2009.
Albania:	Under the provisions of the Electronic Communications Act (Law No. 9918 of May 19, 2008), Article 14 defines a notification process, while Article 13 stipulates the right to offer electronic communications networks and services for profit making purposes to any undertaking. The NRA has yet to publish the forms and the requirements for notification as required by Articles 14 and 15.
BiH	On March 27, 2009 RAK published for consultation draft proposals to reduce annual fees from BAM 500,000 to BAM 450,000 for public fixed telephone services with own network infrastructure; from BAM 70,000 to BAM 55,000 for public fixed telephone services without own networks; and from BAM 600,000 to BAM 550,000 for 2G mobile network operators.
Serbia	For more details, see Rules on fees and costs for licence and authorisation issuance of May 2006

The status of VoIP in the EU was set out in the Commission Communication on the Status of voice on the Internet under Community Law, in particular under Directive 90/388/EC.[23] The intention was not to regulate VoIP services in the same way as voice telephony if they were not substitutable. The regulatory framework reinforced the principle of technology neutrality, so that there is no specific regime for VoIP or for voice telephony. Under the EU 2003 directives, VoIP providers operate under the same general authorisation regime as any other communications providers.

The European Regulators Group adopted a common position on the regulation of VoIP at the end of 2007.[24] In March 2008, the European Commission received the final report of a study on VoIP regulation it commissioned from WiK.[25]

Different rights and obligations may apply to VoIP services depending on which category they belong to, whether electronic communications services (ECS) or publicly available telecommunications services (PATS). ECS are defined in the Framework Directive as services normally provided for remuneration and consist wholly or mainly in the conveyance of signals on electronic communications networks. PATS are a subset of ECS defined in the Universal Service Directive (2002/22/EC) as services:

- available to the public
- enabling originating and receiving of national and international calls and access to emergency services
- using a number or numbers in a national or international telephone numbering plan.

PATS providers have additional rights and obligations compared to publicly available ECS providers: number portability, calls to emergency services, carrier selection and pre-selection and the right of customers to have an entry in the publicly available directory.

Table C.4 summarises authorisation requirements for public VoIP services, covering:

[23] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:c:1998:006:0004:0008:en:PDF
[24] http://www.erg.eu.int/doc/publications/erg_07_56rev2_cp_voip_final.pdf
[25] http://ec.europa.eu/information_society/policy/ecomm/doc/library/ext_studies/voip_f_f_master_19mar08_fin_vers.pdf

- authorisation requirements specific for VoIP services (e.g., VoIP is defined as separate licensing category or there are specific notification requirements for VoIP under general authorisation regime);
- classification of VoIP based on PATS/ECS or any other definitions (e.g., public voice telephony services);
- any restriction to rights and obligations specific to VoIP providers.

NB. Table C.4 below shows where VoIP providers are allowed to use geographic and non-geographic numbers from the national numbering plan.

In Croatia, under the Telecommunication Law of 1999, VoIP was considered to be an Internet service, so that no further authorisation was needed. Under the Law of 2003, VoIP has been defined as separate service requiring a general authorisation with notification. Moreover, the authorisation fees for VoIP were initially kept unusually high: a €33,000 one-off fee plus an annual fee of 1% of revenue. The bylaw on payments of fees for provision of telecommunication services amended on February 17, 2005, lowered the one-off fee by a factor of 50 to €670, and the annual fee was lowered tenfold, to 0.1%. The new Electronic Communications Law that entered into force on July 1, 2008 introduced an authorisation framework aligned with the Authorisation Directive.

FYROM has an authorisation framework that is aligned with the Authorisation Directive.

In Turkey the provision of VoIP requires a long distance telephony service licence and is subject to the same conditions as the fixed voice telephony service. The new authorisations regime under the new Electronic Communications Law that enters into force on May 10, 2009 will include VoIP under general authorization requirements with notification to the NRA, with rights of use of numbers if these are allocated.

In Albania, the law adopted in November 2006 clarified the status of VoIP services, introducing a technology neutral definition of publicly available telephony services, subject to the same licensing regime, regardless of the underlying technology. The new Law on Electronic Communications that entered into force on June 26, 2008 introduced an authorisation framework aligned with the Authorisation Directive.

In Bosnia & Herzegovina and in Kosovo, the provision of VoIP is subject to the same individual licence as for other fixed voice telephony services.

In Montenegro, under the previous Telecommunications Law (Official Gazette of the Republic of Montenegro, No.59/2000), the provision of VoIP was a separate service category that required an individual (special) licence. Under that framework, the Montenegrin regulator issued 8 licences for VoIP following two tender procedures launched in July 2007 and in December 2007. According to the provisions of the new Law on Electronic Communications (Official Gazette of Montenegro, No.50/2008), the authorisation framework has been aligned with the Authorisation Directive.

In Serbia, the authorisation rules (individual licence or general authorisation) depend on whether the service involves the use of numbering resources and real-time transmission of voice between termination points in a public telecommunications network.

Country	Authorisation requirements	Classification of VoIP	Any restrictions to rights and obligations of VoIP providers
Croatia	General authorisation with notification to the NRA	Technology neutral definition of Publicly Available Telephone Services (PATS)	No
FYROM	General authorisation with notification to the NRA	Technology neutral definition of Publicly Available Telephone Services (PATS)	VoIP providers are obliged in their advertising, marketing and subscriber agreements to provide information about any limitations to the quality of the

Country	Authorisation requirements	Classification of VoIP	Any restrictions to rights and obligations of VoIP providers
			offered services and access to emergency services, calling line identification and number assignment.
Turkey	Type 2 telecommunications licence	Long distance telephony services (LDTS), authorised through Annex A.9 of the Ordinance on the authorisation of telecommunications services and infrastructure sets out licensing and authorisation requirements (Official Gazette No. 25565 of August 26, 2004, amended on April 17, 2007 and on August 17, 2007).	No subscriber number allocation. The scope of services under the Type 2 licence is limited to the right to "connect the traffic originating from PSTN, Internet and other networks except GSM to national and/ or international networks using any infrastructure and technology."
	On May 10, 2009 the provisions of the Electronic Communications Law No. 5809 introducing general authorisation regime will enter into force. Implementing legislation for the new authorisation regime is drafted by the NRA. Under the new law, provision of VoIP services will be subject to general authorisation with notification to the NRA and individual rights of use for numbering resources, if numbers are allocated.		
Albania	General authorisation with notification to the NRA	Technology neutral definition of Publicly Available Telephone Services (PATS)	No
Bosnia & Herzegovina	Individual licence for public fixed voice telephony services	Technology neutral definition of publicly available telephone services (PATS)	No
Montenegro	General authorisation, with notification to the NRA	Technology neutral definition of publicly available telephone services (PATS)	No
Serbia	Individual licence for public fixed voice telephony services (if numbering resources are used) Authorisation (class licence) issued on application to the NRA (if numbering resources are not used)	Public fixed telephony services	Not defined
Kosovo	Individual licence for public fixed voice telephony services	Public fixed telephony services	No

Table C.4 - Authorisation requirements and classification for VoIP services

Notes:

FYROM: VoIP providers wanting to serve customers through a local exchange can conclude an access agreement with the network operator. In such cases, call origination can *only* be provided using a freephone or "green" number (0800-9abcd). If the traffic volume on a voice channel is higher than 0.12 Erlangs, then the VoIP provider must conclude an interconnection agreement under which it has the right to provide both call origination and termination.

Albania: There was some work by the NRA in mid-2006 and again in early 2008 concerning VoIP rules and regulations. With the enactment of the new Electronic Communications Law (No. 9918) the NRA is expected to introduce rules for nomadic numbering and addressing, with the draft of the forms for numbering series as stipulated in Articles 81 and 82.

Serbia: In May 2008, the NRA (RATEL) adopted an ordinance regulating VoIP services without numbers from numbering plan. Rules on terms and conditions for provision of voice transmission services over the Internet and the contents of authorization (Official Gazette of the Republic of Serbia no. 94/08)

Authorisation for cable television networks and services are sometimes more complex than for other electronic communications services as they can involve two regulatory authorities: the NRA and the broadcasting regulator. Table C.5 summarises the authorisation requirements for cable television networks in South-East Europe.

In Albania and Serbia an authorisation from both national authorities is required: one each from the national broadcasting authority for the provision of content over the cable TV network, and one from the NRA for the construction of cable infrastructure (which in Albania is now subject to a general authorisation regime with a notification to the NRA).

In Kosovo, cable TV networks are outside the scope of the telecommunications legislation. They are subject to an individual licence issued by the broadcasting authority. In Montenegro, under the new Law on Electronic Communications, the previous regime with the broadcasting authority solely responsible for licensing of cable operators will be replaced with the general authorisation framework with notification to the NRA, similar to any other electronic communications networks.

In Turkey, the Council of State cancelled the authorisation of cable platform services set out in Annex 10 to the Ordinance on Authorisations approved by the NRA in February 2005. Services authorised through a Type 2 telecommunications licence under this annex were defined as "one-way and two-way provision of all type of sound, data, image, and radio/TV signals over the cable platform network", hence it included telephone services as well as radio, TV, Internet and data. The Council of State argued that the authorisation in its current form gives the cable TV operators the possibility to offer more than one service, while according to the existing authorisation regime separate authorisations must be issued for the provision of each individual type of service. The NRA has appealed the Council of State's decision and a final decision is pending. On May 25, 2007 the NRA issued a statement that according to the Council of State's decision the existing authorisations for cable platform services only covered radio and TV broadcasting, and that the cable operators could apply for authorisations for additional services. With the enforcement of the new authorisations regime under the new Electronic Communications Law, expected in May 2009, authorisation requirements will consist of a general authorisation with notification to the NRA.

Country	Authorisation requirements	Additional authorisation required to offer other electronic communications services (e.g. Internet access)
Croatia	General authorisation with notification to the NRA	General authorisation with notification to NRA for additional services
FYROM	General authorization with notification to the NRA *plus* programming permission from the Broadcasting Council, according to the Broadcasting Law (Official Gazette No. 100/2005)	General authorisation with notification to NRA for additional services such as data communications and telephony
Turkey	Type 2 Telecommunication Licence	General authorisation with notification to the NRA for provision of Internet services
Albania	According to Law On Private and Public Radio and Television No. 8410 of August 30, 1998, Articles 123 and 127: • License for broadcasting cable radio-television programs is issued by the National Council of Radio-Television • A permission to operate a cable network for radio-television broadcasting is issued by the NRA. According to article 13 of the new law on Electronic Communications that entered into force on June 26, 2008, a permission from the NRA (AKEP) is now replaced by general authorisation with notification.	General authorisation with notification to the NRA for provision of Internet services

Country	Authorisation requirements	Additional authorisation required to offer other electronic communications services (e.g. Internet access)
Bosnia & Herzegovina	Individual licences: • General licence for public network operator *(network licence)* ; • Licence for provision of services of cable distribution of radio and TV programmes *(service licence).*	Additional service licences: • General licence for provision of fixed public telephone services; or • General licence for provision of Internet services.
Montenegro	General authorisation with notification to the NRA	General authorization with notification to the NRA for additional services
Serbia	General authorisation from the NRA for services and networks *plus* an individual licence from the Republic Broadcasting Agency (RRA) for content.	General authorisation from the NRA
Kosovo	Individual licence from the Independent Media Commission (IMC) under the Regulation on Cable Distribution of Radio and TV in Kosovo (CIMC 2007/04) of July 6, 2007.	If the cable TV operator wants to provide other electronic communications services then the NRA has the authority to issue the required licences.

Table C.5 - Authorisation requirements for Cable TV networks and services

Notes:

Montenegro: All Cable TV operators in Montenegro are performing their activities according to existing licences, issued by Broadcasting Agency of Montenegro according to the old Broadcasting Law (Official Gazette of the Republic of Montenegro, No.51/2002). According to the provisions of the new Law on Electronic Communications (Official Gazette of Montenegro, No.50/2008), existing operators, performing activities on the basis of licences issued by the Agency for Telecommunications and Postal Services and Broadcasting Agency, shall continue to perform activities in compliance with those Acts until issuance of approvals and other Acts in accordance with the new Law (article 141).

Kosovo: The IMC Council on May 8, 2008 awarded cable television licences to all ten applicants under Regulation 2007/04. Cable operators have the right to broadcast only those channels for which they have valid contracts.

4. Rights of way

Rights of way are necessary to establish electronic communications infrastructure, in particular, for new fixed network infrastructure access to install cables and ducts, across public and private land. Construction permits for mobile network infrastructure can also present a problem. Article 11 of the Framework Directive requires that applications for the development of infrastructure shall be handled by the relevant authorities in a transparent, non-discriminatory manner and without delay. The Framework Directive also requires that the authorities issuing building permits must be structurally separated from the network operators that apply for them. Expropriation procedures must be available – justified as a safeguard mechanism for access to private as well as to public land.

There are steps that can be taken to streamline application procedures, for example, in defining the maximum time periods for dealing with applications and making rules for the free use of or easy access to public domains.

Table C.6 below sets outs the regime for rights of way. It shows:

- the legal basis for granting rights of way and construction permits;
- procedures for access to public land, including responsible authorities dealing with applications; and
- timescales for granting permits.

Country	Legal basis for granting rights of way and construction permits	Relevant authorities and their role	Timescales for granting permits
Croatia	Articles 26 to 29 of the Electronic Communications Act of 2008 state that all infrastructure operators have a right to acquire right of use of public and private land.	Depending on the administration of property for which right of way is requested: HAKOM (the NRA), Municipality, Ministry of environmental protection, physical planning and construction, Institution for protection of historical monuments, Institution for protection of natural resources. As regards private property, the operator must have permission from the land owner. A request for approval can be made under article 27 of the Electronic Communications Law, or an expropriation procedure under the General Expropriation Law, according to article 21(2). In accordance with the provisions of the General Expropriation Law, operators can acquire ownership or *usufruct* (right of use), when it is of interest of the Republic of Croatia.	Article 27(4) of the Electronic Communications Act of 2008 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.
FYROM	Electronic Communications Law, articles 29, 88-93 Electronic communication networks and associated infrastructure are considered as works of public interest and must be constructed and operated in accordance with the Law on Electronic Communications and relevant regulations, as well as: • the regulations on spatial planning and construction, • the regulations on protection of the environment and in accordance with the valid technical regulations and standards. Other relevant legislation: • Law on Expropriation (Official Gazette No.33/95, 20/98, 40/99, 31/03, 46/05and 10/08) • Law on Ownership and other Rail Rights (Official Gazette No.18/2001)	• Prior to executing works on the real estate in private property, operators of the public communication networks shall, submit a proposal to the Property And Legal Affairs Department within the Ministry of Finance for the purpose of implementing the expropriation or for establishing the right of use or servitude • The Ministry of Transport and Communications issues an approval for construction of an object on a land which is owned by a third party • All legal and natural persons may use the urban land in ownership of the Republic of Macedonia intended for common use and on behalf of the Republic of Macedonia it shall be governed by the Government of the Republic of Macedonia. • The prepared urban project and competent revision shall be submitted to the Ministry of Transport and Communications and it shall send it for an opinion to the Agency for Electronic Communications if the urban project refers to construction of electronic communication networks and facilities.	The following deadlines are explicitly defined in the law: • The approval for construction of an object on a land which is owned by a third party shall be issued by Ministry of Transport and Communications within seven days of the date of collection of the complete documentation • The opinion on the urban project for construction of electronic communications networks and facilities has to be issued within ten days of receipt and if there is no response in determined period, the Ministry of Transport and Communications shall continue the procedure as a positive opinion has been given

Country	Legal basis for granting rights of way and construction permits	Relevant authorities and their role	Timescales for granting permits
	• Law on Construction (Official Gazette No .51/05 and 82/08) • Law on urban land (Official Gazette No.82/08 и 143/08) • Law on Spatial and Urban Planning (Official Gazette No.24/88)		
Turkey	Electronic Communications Law, part four, articles 22-30	There are different competent administrations responsible for releasing right-of-way permits, depending on type of property, management and administration: municipalities, general directorate of Railways, general directorate of Highways, Turkish Electricity Transmission Corporation, Undersecretariat for Maritime Affairs, etc.	Parties are free to make commercial agreements concerning rights of way, always provided they abide by the relevant legislation, authorisation and concession agreements, telecommunication licences, general authorisation and institutional arrangements and provided that Civil Law No. 4721 of November 22, 2001 is observed. Operators are obliged, on demand from the NRA, to submit copy of rights of way agreements with third parties. When right of way permits are awarded by public institutions and organisations, article23 (2) of the Electronic Communications Act provides that evaluations of applications and/or their transfer should be done transparently and without delay, and in any case within 60 days from application.
Albania	Article 93 of Law No. 9918 of 2008 on Electronic Communications (right of using public and private properties)	Depending on the areas under the public property, notifications have to be submitted to the respective Council of Territorial Regulation (KRRT) regional/local authorities: • for cities: municipal KRRT • for communes: district KRRT	According to the Law No. 8405 of September 17, 1998 on Urban Planning, as amended, article 50, the deadline for approval or refusal of construction permit is 45 days from the request. In practice, considerable delays are still reported (up to 12 months for digging permits)
Bosnia & Herzegovina	Articles 9, 14, 22, 34, 36 and 49 of the Law on Country Planning and Use of Land in Federation of Bosnia & Herzegovina (Official gazettes FBiH No. 52/02). Law on Country Planning in Republic Srpska (Official gazettes RS No. 84/02) Law on City Construction Land (Official Gazettes FBiH No. 67/05) Law on City Construction Land (Official Gazettes RS No. 86/03).	Municipal authorities are relevant authorities where the applicant will be advised on further procedure.	The general timeframe is 30 to 60 days, but usually the applicant needs more time to collect the requested documentation and obtain approval.

Country	Legal basis for granting rights of way and construction permits	Relevant authorities and their role	Timescales for granting permits
Montenegro	Law on Electronic Communications, article 23: Construction, maintenance, development and utilization of electronic communications networks, and equipment with associated infrastructure, as well as provision of electronic communication services and management and use of radio frequency spectrum, numeration and addresses shall be the activities of public interest for Montenegro.	Public land may be used by public operators upon application to an appropriate state or municipality administration. Government of Montenegro only has the authority to determine public interest, by passing relevant act (decision). Disputes (if any) between a public operator and relevant authorities are resolved at courts. A public telecommunications operator, may, in conformity with the legislation in force, enter into agreements with private people to use their land and facilities for the installation and maintenance of any telecommunication equipment. If such agreement fails, operator has right to start the expropriation procedure, according to the Expropriation Law.	All authorities in process should respond within 15 days period after submitting the application (for each separate request), but usually it is much longer than that. Typical timescale for complete process is about 6 months.
Serbia	Telecommunication Law (article 87) specifies that all public network operators have non-discriminatory rights of way. Law on Country planning and Construction (Official Gazette No.47/03) – articles 88-89. A new draft Law on spatial planning and construction has been prepared by the Ministry of Environment and Spatial Planning. The law is expected to be adopted by fall 2009 and is intended to simplify the construction procedures.	Planning has to comply with regulations at all levels of governments (local, regional, federal). Relevant authorities include: Ministry of Environment and Spatial Planning, Municipalities, RATEL, Ministry of Defence, Civil Aviation Directorate, Institution for protection of historical monuments, Institution for protection of natural resources. All procedures are defined in the Contract between the public operator and relevant authority.	The authorities should respond within 15 days (for each request), but usually it is much longer than that. Typical timescale for permission is more than 18 months.
Kosovo	Yes All licensed operators have non-discriminatory rights of way established by Article 27 of the Law on Telecommunications	Yes Public land may be used by operators upon application to municipal authorities. Under Article 27 of the Law on Telecommunications, TRA may establish rules for the use of publicly and privately controlled property for telecommunications services and service providers.	A licensed telecommunications operator, may, in conformity with the legislation in force, enter into agreements with private persons to use their land and facilities for the installation and maintenance of telecommunication networks and equipment. Expropriation procedures may be used. The Kosovo Assembly adopted a Law on Expropriation (No 02/L-97) on February 8, 2007. However, it has never been promulgated by the SRSG and therefore has not entered into force.

Table C.6 - Rights of way

Article 12 of the Access Directive establishes that, based on a market analysis, NRAs can impose obligations on operators with SMP to meet reasonable requests for access to network elements and associated facilities. The NRA may do so where it finds denial of access or unreasonable terms and conditions would hinder the emergence of a competitive market at the retail level or would not be in the end-users' interest. Operators may be required, inter alia, to provide collocation or other forms of facility sharing, including of ducts, buildings, or masts.

Article 12 of the Framework Directive calls NRAs to encourage the sharing of facilities and access to properties by electronic communications network operators. In particular, where undertakings are deprived of access to viable alternatives because of the need to protect the environment, public health, public security or to meet town and country planning objectives, the sharing of facilities or property (including physical co-location) or specific measures to facilitate the coordination of public works can be mandated subject to a prior public consultation. Such sharing or coordination arrangements may include rules for apportioning the costs of facility or property sharing.

Table C.7 shows whether obligations to provide access to ducts, have been imposed as a result of market analyses or based on specific legislation (e.g., national rules for electronic communications or competition law).

Country	Obligations to provide access to ducts	
	Market analysis	**Other basis**
Croatia	No	Electronic Communications Act of 2008, article 30. An obligation may be imposed by the NRA for requirements concerning the protection of human health, environmental protection, spatial protection, protection and preservation of cultural goods, or for national security.
FYROM	No	Under articles 30 and 51 of the Law for Electronic Communications and the Rules for Access and Utilization of Specific Network Facilities, the NRA may impose infrastructure sharing because of the need to protect public health, the environment or to meet planning objectives
Turkey	No An Annex to the Turk Telekom's Reference Wholesale Offers is to be approved shortly, putting forth the detailed terms and conditions that will apply to all facility sharing seekers. The scope of the obligation depends on the SMP decision and regulatory obligations imposed on TT based on fixed market analyses.	Law on Electronic Communications No. 5809, article 17. An obligation to share facilities or properties in return for a reasonable charge may be imposed by the NRA because of the need to protect environment, public health and safety, urban and regional planning and efficient use of resources.
Albania	No	Law on Electronic Communications No. 9918, article 22. In cases where the economic use of space, city planning and protection of environment requires so, operators of the public electronic communications networks that have the right to construct and install communication equipments in the private or public property shall construct or install them in such way as to enable their joint use. Undertakings of public communications networks shall be obliged negotiate agreements for the joint use of facilities and assets. The NRA shall encourage them to reach agreements for the joint use of the facilities and assets, provided it is technically feasible and compensation is given by the requesting party. A dispute resolution procedure on sharing of facilities is also covered by the same article.
Bosnia & Herzegovina	No	No

Country	Obligations to provide access to ducts	
	Market analysis	Other basis
Montenegro	No	Rulebook on the Joint Use of Telecommunications Infrastructure (Official Gazette No. 65/2005) Article 1 of the Rulebook defines telecommunications infrastructure as land, buildings and other constructions, ducts, antenna masts and other necessary infrastructure needed for their use.
Serbia	No	Telecommunications Law, article 87 (2) If technically feasible, the NRA may order sharing of infrastructure by two or more telecommunications operators in return for fair compensation. RATEL decision from December 8, 2006 on Principles for sharing of cable infrastructure
Kosovo	No	Section 3.6.3 of the Telecommunications Sector Policy supports the sharing of infrastructure facilities "... between and among PTO's (including, but not limited to, backbone facilities, towers, ducts, and premises), should be mandatory, to the extent practicable and consistent with the provisions of the Telecommunications Law. Section 27 of the Law on Telecommunications, on shared use of facilities and public rights of way, states that "The TRA shall establish rules for the use of publicly and privately controlled property with respect to telecommunications services and service providers ..."

Table C.7 - Access to ducts

D. Implementation of the EU 2002 regulatory framework

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. It may subsequently be subject to specific *ex ante* regulatory obligations or remedies.

Table D.1 below examines the national frameworks used by NRAs for market analyses. It specifies the discretion an NRA has in exercising the functions foreseen under the EU 2003 regulatory framework, including the powers to:

- collect relevant information and any restrictions on this power;
- define relevant markets applying competition law principles;
- designate operators with SMP;
- impose regulatory obligations on operators with SMP, i.e.
  - remedies are pre-defined by law or

- the NRA has discretion to impose remedies according to the identified competition problems; and

- how often the NRA is required to carry out market analysis.

The use of the old and rigid rule of 25% market share together with equally rigid lists of remedies or obligations has been common practice in recent years under most regimes. In the case of FYROM, the level is 40% taken from its domestic competition law, while in Serbia it is 20%, though with the option for the NRA to use 25%.

The timing of this report finds legal changes coming into effect, which should bring the approaches being applied much closer to that of the EU regulatory framework.

Country	Restrictions on NRA powers to collect information	Definition of relevant markets: by law or by NRA.	Basis for SMP designation: Competition law or 25% market share threshold?	Imposition of remedies: Pre-defined or by NRA discretion	Timeframe for market analysis
Croatia	No restrictions (Articles 53 (3), 54(2) of the Electronic Communications Act of 2008)	The NRA has discretion to define relevant markets taking into account the European commission recommendation on relevant markets and applying the three criteria test (Article 53 of the Electronic Communications Act of 2008). The NRA may also identify any relevant market which is not part of EC Recommendation on relevant markets, but the three criteria test firstly has to be applied (Article 53 (2) (3) of the Electronic Communications Act of 2008).	Competition law principles, taking into account market shares and other relevant criteria, and EC guidelines (Article 55 of the Electronic Communications Act of 2008)	Discretionary remedies can be imposed by the NRA (listed in Articles 58 to 65 of the Electronic Communications Act of 2008).	At least once every three years (Article 52 of the Electronic Communications Act of 2008)
FYROM	No restrictions Operators of electronic communications networks and service providers are required to submit at the request of the NRA all information related to their activities. Such a request has to be justified, based on reasonable grounds and proportionate to its purpose (Article 23 of Law on Electronic Communications).	Under Article 41 of the Law on Electronic Communications, the NRA defines relevant product, service and geographic markets in accordance with the Law on Protection of Competition and in cooperation with the NCA. In August 2005, the NRA adopted a Decision on the determination of relevant markets that sets out 18 relevant product markets according to the EC Recommendation of 2003; all are national in their geographic scope.	According to the provisions of the Law on Protection of Competition, a company has a dominant position on a relevant market if it has market share of over 40%. The NRA in its assessment of SMP in a relevant market takes into account this provision of the Law on Protection of Competition, combined with other criteria defined in Article 40 of Law on Electronic Communications.	Discretionary remedies can be imposed by the NRA.	Once a year (Article 42 of Law on Electronic Communications)

Country	Restrictions on NRA powers to collect information	Definition of relevant markets: by law or by NRA.	Basis for SMP designation: Competition law or 25% market share threshold?	Imposition of remedies: Pre-defined or by NRA discretion	Timeframe for market analysis
Turkey	According to the Regulation on Principles and Procedures for Identification of the Operators with Significant Power, the NRA can demand any information without restrictions during the market analysis. NRA can use public surveys, studies by third parties and international benchmarks.	The NRA has discretion to define relevant markets applying competition law principles.	The Regulation on the Principles and Procedures for Identification of the Operators with Significant Power states that when determining which operators have SMP in a relevant market, market shares of the operators are considered as the primary criterion. The determination of the market shares of the operators can be made based on revenue, subscriber or user numbers, traffic volume, transmission capacity and transmission line number, as long as they are appropriate and available. In addition to market shares, SMP assessment can be based on a number of other criteria defined in Article 8 of the Regulation on Principles and Procedures for Identification of the Operators with Significant Power.	Under Article 10 of the Regulation on Principles and Procedures for Identification of the Operators with Significant Market Power, the NRA may impose on operators with SMP the following remedies: • transparency • publication of reference access and interconnection offers • non discrimination • accounting separation • tariff regulation • cost accounting. Under article 7 of the Law on Electronic Communications, the NRA may impose discretionary remedies, allowing differentiation among operators with SMP on the same market and among different markets.	At least once every three years (Article 6 (1) of the Regulation on Principles and Procedures for Identification of the Operators with Significant Power)
Albania	No restrictions. Under article 16 of the Law on Electronic Communications, undertakings are obliged to provide data requested by the NRA.	The NRA has discretion to define relevant markets applying competition law principles (Article 32 of the Law on Electronic Communications of May 19, 2008)	Competition law principles, taking into account market shares and other relevant criteria (Article 33 of the Law on Electronic Communications of May 19, 2008) Draft market analysis regulation published by the NRA for consultation in December 2008 makes reference to the EC guidelines on market analysis	Remedies are discretionary imposed by the NRA (listed in Articles 39-45, 56 of the Law on Electronic Communications).	On regular basis, but no less than once every two years (Law on Electronic Communications, art. 34)
Bosnia & Herzegovina	Licence conditions of all licensed operators and service providers contain an obligation to provide to the NRA any requested information in a timely fashion.	Discretionary definition by the NRA (Article 14 of the Law on Communications)	25% market share as threshold in a relevant market combined with an assessment of other criteria	Basic regulatory obligations are defined in the law and licenses of the three incumbent operators. Further discretionary remedies can be imposed by the NRA (Article 14 of the Law on Communications).	Once every year (Article 14 of the Law on Communications)

Country	Restrictions on NRA powers to collect information	Definition of relevant markets: by law or by NRA.	Basis for SMP designation: Competition law or 25% market share threshold?	Imposition of remedies: Pre-defined or by NRA discretion	Timeframe for market analysis
Montenegro	No restrictions (Article 18 of the Law on Electronic Communications of July 29, 2008) The information request, however, must be justified and proportionate.	Discretionary definition by the NRA, in cooperation with the NCA and taking into account the EU practices (Article 41 of the Law on Electronic Communications of July 29, 2008)	Competition law principles, taking into account market shares and other relevant criteria (Article 47 of the Law on Electronic Communications of July 29, 2008)	Remedies are discretionary imposed by the NRA (listed in Articles 48-51, 56 of the Law on Electronic Communications of July 29, 2008).	Not defined Under Article 143, Transitional provisions of the Law on Electronic Communications of July 29, 2008, the NRA must complete its first market analysis within one year from the entry into force of the law, i.e. by August 27, 2009.
Serbia	No restrictions Public telecommunications operators are required to submit at the request by the NRA all information related to their activities (Article 21 of Telecommunications Law). Licence conditions of all licensed operators and service providers also contain an obligation to provide to the NRA any requested information in a timely manner.	Discretionary definition by the NRA	20% market share, measured by number of subscribers, which the NRA may raise to 25% (Article 4(49) of the Telecommunications Law)	SMP obligations are set out in Articles 9, 10, 39, 40, 43, 48, 53 and 111 of the Telecommunications Law.	Not defined
Kosovo	The NRA has the authority to collect and maintain information, including but not limited to statistics, financial, employment and network performance reports or other reports that it requires in order to fulfil its responsibilities (Telecommunications Act (UNMIK Regulation 2003/16), Section 12).	Discretionary definition by the NRA	25% market share in a relevant market, combined with an assessment of other criteria (Telecommunications Act (UNMIK Regulation 2003/16), Section 44)	Basic access and interconnection obligations are set out in Telecommunications Act and operators' licences. Further discretionary remedies can be imposed by the NRA.	Subject to NRA discretion or upon request of any service provider

Table D.1 - Market analysis and the discretionary powers of NRAs

2. Analysis of relevant markets by NRAs

Table D.2 shows the analyses of relevant retail and wholesale markets conducted by the NRAs.

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
Croatia	Public fixed telephone network and services, covering: • Voice services • Services for transmission of voice, sound, data, documents, pictures, etc.	National	Joint SMP: • HT- Hrvatske Telekomunikacije (T-Com) • Iskon (100% owned by T-Com)	• Network access and interconnection • non-discrimination • transparency • publication of reference offer • price control and cost-orientation • accounting separation	Chapter VII of Telecommunication Law of 2003 HAT SMP decisions of Sept. 14, 2006 (for public fixed telephone network and services) and March 30, 2007 (for leased lines, mobile services and interconnection)
	Leased lines	National	• HT- Hrvatske Telekomunikacije (T-Com)		
	Public voice services in mobile network	National	• T-Mobile Hrvatska • VIPnet		
	Interconnection services	National	• HT- Hrvatske Telekomunikacije (T-Com) • T-Mobile Hrvatska • VIPnet		
	On March 2, 2009 the NRA published for consultation until April 20, 2009 its analysis of nine relevant markets. In identifying the nine markets relevant for ex ante regulation, the NRA follows the seven markets of the 2007 European Commission recommendation and applies the three criteria test for additional markets. The consultation documents include analysis, SMP assessment and imposition or removal of regulatory obligations covering the following markets and SMP designations: • wholesale call termination in public fixed networks – HT- Hrvatske Telekomunikacije (T-Com), Iskon Internet and seven alternative opertors • wholesale broadband access – HT- Hrvatske Telekomunikacije (T-Com) • wholesale call termination on individual mobile networks – T-Mobile Hrvatska, VIPnet, Tele2 • wholesale SMS termination on individual mobile networks – none (market does not meet the three criteria test) • wholesale infrastructure access at a fixed location - HT- Hrvatske Telekomunikacije (T-Com) • wholesale call origination from public fixed networks - HT- Hrvatske Telekomunikacije (T-Com) • public voice services in mobile networks – none (market does not meet the three criteria test) • wholesale transit services in public fixed network - none (market does not meet the three criteria test) • wholesale access and call origination from public mobile networks – none (market does not meet the three criteria test) According to the NRA decision of July 9, 2008 on the markets relevant for ex ante regulation, two further markets will be analysed at a later stage covering access to public fixed telephony services at fixed location for residential and business customers and retail and wholesale terminating segments of leased lines. The timing would be determined by the completion of the current analyses.				

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
FYROM	Wholesale call termination in individual mobile network (market 16/2003)	National	• T-Mobile Macedonia • Cosmofon Skopje	• Interconnection and access • transparency • non-discrimination • accounting separation • price control and cost accounting obligations • access to and use of specific network facilities	AEC decision of January 18, 2008
	• Fixed voice telephone networks and services • Access to networks for data transmission and leased lines	National	• Makedonski Telekom	• Interconnection and access • transparency • non-discrimination • publication of RIO, RUO, reference offer for minimum set of leased lines • accounting separation • price control and cost accounting obligations • CS/CPS	Article 146, Transitional provisions of Electronic Communications Law sets out the SMP designations and the regulatory obligations.
Turkey	Wholesale call termination in individual mobile network	National	• Turkcell • Vodafone • Avea	• Non-discrimination • Cost accounting • Accounting separation • Transparency • Publication of reference offer • Price control	TA Decision no. 2005/880, Official Gazette of December 28, 2005 (SMP designations for GSM mobile markets: markets 15-16/2003)
	Wholesale mobile access and call origination	National	• Turkcell	• Non-discrimination • Cost accounting • Accounting separation • Transparency • Publication of reference access and interconnection offer • Price control	TA Decision no. 2005/880, Official Gazette of December 28, 2005 (SMP designations for GSM mobile markets: markets 15 - 16/2003)

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
	Retail access to the public telephone network at fixed location for residential and business customers	National	• Türk Telekom	• Non-discrimination • Cost accounting • Accounting separation • Price control	TA Decision no. 2006/DK-10/142, Official Gazette dated 17/03/2006 (SMP designation for fixed markets: markets 1-14/2003)
	Retail publicly available national, local and international telephone calls at fixed location	National	• Türk Telekom	• Non-discrimination • Cost accounting • Accounting separation • Price control	TA Decision no. 2006/DK-10/142, Official Gazette dated 17/03/2006 (SMP designation for fixed markets: markets 1-14/2003)
	Wholesale call termination on public telephone networks provided at a fixed location	National	• Türk Telekom	• Non-discrimination • Cost accounting • Accounting separation • Transparency • Publication of reference offer • Price control	TA Decision no. 2006/DK-10/142, official gazette dated 17/03/2006 (SMP designation for fixed markets: markets 1-14/2003)
	Wholesale call origination on the public telephone network provided at a fixed location	National	• Türk Telekom	• Non-discrimination • Cost accounting • Accounting separation • Transparency • Publication of reference offer • Price control	TA Decision no. 2006/DK-10/142, Official Gazette dated 17/03/2006 (SMP designation for fixed markets: markets 1-14/2003)
	Transit services in the public telephone network provided at fixed locations	National	• Türk Telekom	• Non-discrimination • Cost accounting • Accounting separation • Transparency • Publication of reference offer • Price control	TA Decision no. 2006/DK-10/142, Official Gazette dated 17/03/2006 (SMP designation for fixed markets: markets 1-14/2003)

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
	Wholesale unbundled access (including shared access) to local loops and sub loops for the purpose of providing broadband and voice services	National	• Türk Telekom	• Non-discrimination • Cost accounting • Accounting separation • Transparency • Publication of reference offer • Price control	TA Decision no. 2006/DK-10/142, Official Gazette dated 17/03/2006 (SMP designation for fixed markets: markets 1-14/2003)
	Wholesale broadband access including bitstream access	National	• Türk Telekom	• Non-discrimination • Cost accounting • Accounting separation • Transparency • Publication of reference offer • Subject to tariff regulation	TA Decision no. 2006/DK-10/142, Official Gazette dated 17/03/2006 (SMP designation for fixed markets: markets 1-14/2003)
	Leased lines	National	• Türk Telekom	• Non-discrimination • Cost accounting • Accounting separation • Transparency • Price control	TA Decision no. 2006/DK-10/142, Official Gazette dated 17/03/2006 (SMP designation for fixed markets: markets 1-14/2003)
Albania	Wholesale call termination in individual mobile networks	Geographic extent of each mobile network	• Albanian Mobile Communications • Vodafone Albania	• Non-discrimination • Cost orientation • Transparency • Access and interconnection • Respect confidentiality • Price control • RIO	TRE decision of September 18, 2007
	Retail public mobile services	National	• Albanian Mobile Communications • Vodafone Albania		TRE decision of September 18, 2007
	Retail access to the public telephone network at fixed location	National	• Albtelecom	• CS/CPS • Non-discrimination • Cost orientation • Transparency • Access and interconnection	TRE decision of November 13, 2007
	Retail publicly available telephone calls at fixed location	National	• Albtelecom		TRE decision of November 13, 2007
	Wholesale call termination on geographic numbers in Albtelecom fixed network	National	• Albtelecom		TRE decision of November 13, 2007

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
	Wholesale call origination on the public telephone network provided at a fixed location	National	• Albtelecom	• Respect confidentiality • Price control • RIO	TRE decision of November 13, 2007
	National transit services in the public telephone network provided at fixed locations	National	• Albtelecom		TRE decision of November 13, 2007
	International transit services in the public telephone network provided at fixed locations.	National	• Albtelecom		TRE decision of November 13, 2007
	Following a public consultation completed in January 2009, the NRA is expected to adopt shortly a new regulation on market analysis. The draft document sets out the methodology for market analysis and identifies 18 markets relevant for ex ante regulation. The list of the identified relevant markets comprises 17 markets of the 2003 European Commission recommendation (excluding the market for broadcasting transmission services) and an additional market for retail mobile services identified based on the three criteria test.				
Bosnia & Herzegovina	Fixed telephony services	Geographic extent of each fixed network	• BH Telecom • Telekom Srpske • HT Mostar	• Non-discrimination • Cost orientation • Transparency • Access and interconnection • Respect confidentiality • Price control • RIO • CS/CPS	RAK decision of September 27, 2007 (Official Gazette of BiH 81/2007)
	Mobile telephony services	Geographic extent of each fixed network	• BH Telecom • Telekom Srpske • HT Mostar	• Non-discrimination • Cost orientation • Transparency • Access and interconnection • Respect confidentiality • Price control • RIO	RAK decision of September 27, 2007 (Official Gazette of BiH 81/2007)
Montenegro	Retail public fixed voice telephone networks and services, including data transmission and leased lines services	National	• Crnogorski Telekom (T-Com)	Not defined	Article 143, Transitional provisions of the Law on Electronic Communications of July 29, 2008 sets out the SMP designations, without specifying the regulatory obligations for SMP
	Wholesale call termination in individual mobile and fixed networks	National	All network operators (not defined)		

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
	Broadcasting transmission services	National	• Broadcasting Center		operators
Serbia	Retail public fixed telephone networks and services	National	• Telekom Srbija	• Network access and interconnection • Non-discrimination • Cost orientation • Transparency • Prohibition of cross-subsidisation • Retail price control	RATEL decision of March 3, 2006
	Retail radio and television programme distribution via cable network	National	• SBB	• Retail price control • Accounting separation	RATEL decision of February 19, 2007
	On April 22, 2008 RATEL adopted a decision identifying six markets relevant for ex ante regulation, comprising the four relevant markets defined under the ONP framework and two additional markets: • fixed telephony • mobile telephony • leased lines • interconnection • Internet services • provision of cable distribution systems.				
Kosovo	Public mobile services	National	• PTK (Vala)	• Non-discrimination • Cost orientation • Transparency • Network access • Respect confidentiality • RIO	Telecommunications Act (UNMIK Regulation 2003/16), Section 44
	Public fixed telephone networks and services	National	• PTK	• Non-discrimination • Cost orientation • Transparency • Network access • Respect confidentiality • RIO	

Table D.2 - Analyses of retail and wholesale markets

E. Competitive safeguards

1. Carrier selection and pre-selection

Article 19 of the Universal Service Directive (2002/22/EC) states that NRAs must require operators with SMP in the markets for the provision of connection to and use of the public telephone network at a fixed location to enable their subscribers to access the services of any interconnected provider of publicly available telephone services:

- on a call-by-call basis by dialling a carrier selection code; and
- by means of carrier pre-selection, with a facility to override any pre-selected choice on a call-by-call basis by dialling a carrier selection code.

Table E.1 details the regulatory obligations to offer CS and Table E.2 the obligations for CPS on the fixed networks of incumbent operators. These basic access services are not available in Albania, Serbia or Kosovo. In Turkey, although introduced in 2006, CS and CPS are still not available for local calls as there are no alternative providers of local services. Also in FYROM, CS and CPS services for local call were implemented only recently. In Croatia where the services have been available for almost four years, although in practice alternative operators were not interested in provision of call-by-call CS services until 2006. While both CS and CPS have been introduced in Montenegro, the incumbent operator's RIO only covers provision of call-by-call CS, leaving service providers to negotiate terms and conditions for CPS on commercial basis.

Country	CS implementation for different type of calls				Operators required to provide CS	Call origination for CS included in RIO?
	Local	National	International	Calls to mobile		
Croatia	February 2005	February 2005	February 2005	February 2005	T-Com	T-Com RIO, Section 4.2
FYROM	May 2008	January 2007	January 2007	January 2007	Makedonski Telekom	Makedonski Telekom RIO, Annex 3D
Turkey	Not available	April 2006	April 2006	April 2006	Türk Telekom	Türk Telekom RIO, Sections 2.1.1.2 and 3.1.6
Albania	Not available	Not available	Not available	Not available	-	-
Bosnia & Herzegovina	October 2006	October 2006	October 2006	October 2006	• BH Telecom • Telekom Srpske • HT Mostar	Yes
Montenegro	December 2007	December 2007	December 2007	December 2007	All public telecommunications operators, both fixed and mobile	Crnogorski Telekom RIO, Section 2.5
Serbia	Not available	Not available	Not available	Not available	-	-
Kosovo	Not available	Not available	Not available	Not available	-	-

Table E.1 - Obligations to provide carrier selection

Notes:
Albania: Users of Albtelecom have been able to use prepaid calling cards from service providers for national and international calls since 2002. Call origination for these calls (prepaid cards) is included in Albtelecom RIO, approved by TRE on October 2, 2009.

Serbia: CS and CPS are not defined in the Telecommunications Law. According to the Action plan for implementation of the National Strategy for Development of Telecommunications adopted by the government on January 15, 2009, the bylaw on implementation of CS and CPS must be adopted by the end of 2009.

Country	CPS implementation for different type of calls				Operators required to provide CPS	Call origination for CPS included in RIO?
	Local	National	International	Calls to mobile		
Croatia	February 2005	February 2005	February 2005	February 2005	T-Com	T-Com RIO, Section 4.2
FYROM	May 2008	January 2007	January 2007	January 2007	Makedonski Telekom	Makedonski Telekom RIO, Annex 3D
Turkey	Not available	July 2006	July 2006	July 2006	Türk Telekom	Türk Telekom RIO, Sections 2.1.1.2 and 3.1.6
Albania	Not available	Not available	Not available	Not available	-	-
Bosnia & Herzegovina	July 2007	July 2007	July 2007	July 2007	• BH Telecom • Telekom Srpske • HT Mostar	Yes
Montenegro	December 2007	December 2007	December 2007	December 2007	All public telecommunications operators, both fixed and mobile	No Only CS is included in Crnogorski Telekom RIO, Section 2.5
Serbia	Not available	Not available	Not available	Not available	-	-
Kosovo	Not available	Not available	Not available	Not available	-	-

Table E.2 - Obligations to provide carrier pre-selection

Where carrier selection and pre-selection have been available for some time, then service providers have entered the markets, but in very small numbers (see Table E.3). There has been only limited adoption of these services by consumers and businesses. It appears that only in Croatia carrier selection and pre-selection, so far, can be considered to be a success. At the end of 2008 there were over 255,000 CPS users in Croatia that corresponds to 15% of all fixed lines.

Country	CS implementation		CPS implementation	
	Alternative operators offering CS	Number of CS users	Alternative operators offering CPS	Number of CPS users
Croatia	5	N/A	4	255,520
FYROM	2	10,946	-	-
Turkey	9	N/A	11	N/A
Albania	-	-	-	-
Bosnia & Herzegovina	4	N/A	-	-
Montenegro	6	N/A	-	-

Country	CS implementation		CPS implementation	
	Alternative operators offering CS	Number of CS users	Alternative operators offering CPS	Number of CPS users
Serbia	-	-	-	-
Kosovo	-	-	-	-

Table E.3 - Implementation of carrier selection and pre-selection

Notes:

Croatia: The number of CPS users at the end of 2008. The CPS providers are: AMIS, H1, Metronet, Optima.
FYROM The number of CS users as of June 30, 2008.
Montenegro: The NRA has assigned six CS access codes (1001, 1011, 1012, 1013, 1020 and 1067) to VoIP, mobile and fixed network operators (T-Com Montenegro, VOIP Telecom, PTT Inzenjering, Dimal Telecom, IT Montenegro, T-Mobile Montenegro).

2. Number portability

Number portability in fixed networks is required to allow customers to switch operators, usually away from the incumbent to a rival, while retaining the value and familiarity of their existing number. The EU legal framework requires that it be available for both:

- geographic numbers; and
- non-geographic numbers.

There are a number of possible technical solutions. With **onward routing**, a call to a ported number is routed to the donor network (i.e. the network to which the called party previously subscribed to), which then forwards the call to the recipient network (i.e. the network providing service to the subscriber after porting). Whereas, with **direct routing**, a central or distributed database of ported numbers is used for routing calls to ported numbers directly to the recipient network:

- **All calls query – ACQ**

  The originating operator consults the database for all calls.

- **Query on release – QoR**

  The originating operator consults the database only when the call to the ported number is rejected by the donor network.

Table E.4 summarises the implementation of fixed number portability. Only FYROM and Croatia have so far implemented number portability in fixed networks. While in FYROM it is still very early in the introduction of this service, in Croatia over 250,000 numbers have already been ported, which constitutes 9.5% of total fixed subscriber numbers.

Country	Implementation		Deadline and legal basis	Inter-operator charge per ported number	Technical solution	NP database financing	Ported numbers statistics
	Geographic numbers	Non-geographic numbers					
Croatia	July 2005	July 2005	Deadline: January 2005, then postponed to April 2005. Article 72 of the Telecommunications Law of 2003 Ordinance on number portability and carrier pre-selection of December 2004 (Official Gazette 183/04) NRA Decision on number portability and carrier pre-selection of August 26, 2005 (with amendments)	None	Direct routing, ACQ with centralised database	Centralised database is operated by the NRA and funded from the NRA budget.	285,700 fixed numbers ported as of March 1, 2009 (269,140 at end 2008)
FYROM	September 2008	September 2008	Deadline: September 2008 Articles 84 and 85 of the Law on Electronic Communications Bylaw on number portability of December 21, 2006 (with amendments) Technical description of the transactions and communication interface between the CRDB and operators approved by the NRA in March 2007.	MKD 700 (€11.00) one-off charge plus annual numbering usage fee set by AEC annually Makedonski Telekom RIO, Annex 8B	Direct routing, QoR with centralised database	Centralised database is operated by the NRA and funded from the NRA budget.	7,051 as of March 2009
Turkey	Not implemented	Not implemented	Deadline: May 2009 Number Portability Ordinance (Official Gazette No 26421, February 1, 2007). Centralised reference database established on May 9, 2008.	One-off charges per ported number have to be cost-oriented. The NRA may establish an upper limit for charges.	Direct routing, ACQ with centralised database (but other methods are not excluded)	Centralised database is operated by the NRA and funded from the NRA budget.	-
Albania	Not implemented	Not implemented	Deadline: June 2009 Law on Electronic Communications (Law No. 9918 of May 19, 2008) sets the implementation deadline within 12 months from its entry into force Secondary legislation is required for implementation.	-	-	-	-

Country	Implementation		Deadline and legal basis	Inter-operator charge per ported number	Technical solution	NP database financing	Ported numbers statistics
	Geographic numbers	Non-geographic numbers					
Bosnia & Herzegovina	Not implemented	Not implemented	Deadline: December 2009 Telecom Sector Policy, Official Gazette No. 8/2009, sets the implementation deadline at the end of 2009 Law on Communications (Official Gazette No. 31/2003, Art. 8, 27, 38 and 39) RAK Rule on Number Portability No. 32/2008	Max. BAM 30.00 (€15)	Direct routing, ACQ with centralised database	Centralised database is to be financed by telecom operators	-
Montenegro	Not implemented	Not implemented	Deadline: not defined. Legal basis: Article 110 of Law on Electronic Communications Secondary legislation is required for implementation.	-	-	-	-
Serbia	Not implemented	Not implemented	Deadline: not defined. Telecommunications Law provides no legal basis for number portability		-	-	-
Kosovo	Not implemented	Not implemented	Deadline: not defined. Legal basis: Section 39 of the Telecommunications Law	-	-	-	-

Table E.4 - Availability of fixed number portability

Notes:

Serbia: Number portability is not defined in the Telecommunications Law. According to the Action plan for implementation of the National Strategy for Development of Telecommunications adopted by the government on January 15, 2009, the bylaw on implementation of number portability in fixed and mobile networks must be adopted by the end of 2009.

Table E.5 summarises the implementation of mobile number portability. Only Croatia, FYROM and Turkey have so far implemented number portability in mobile networks. In Turkey, it appears to be a particular success with almost 1.2 million mobile numbers having been ported within the first four months since its introduction in November 2008.

Country	Implementation	Implementation deadline and legal basis	Inter-operator charge per ported number	Technical solution	NP database financing	Use	
						Ported numbers statistics	% of total mobile numbers
Croatia	October 1, 2006	Deadline: June 30, 2005. Article 72 of the Telecommunications Law of 2003 Ordinance on number portability and carrier pre-selection of Dec. 2004 (Official Gazette 183/04) NRA Decision on number portability and carrier pre-selection of August 26, 2005 (with amendments)	None	Direct routing, ACQ with centralised database	Centralised database is operated by the NRA and funded from the NRA budget.	72,200 mobile numbers ported as of March 1, 2009 (66,100 - at end of 2008)	1.2%
FYROM	September 2008	Deadline: July 2007, then postponed to September 2008 Articles 84 and 85 of the Law on Electronic Communications Bylaw on number portability of Dec. 21, 2006 (with amendments) Technical description of the transactions and communication interface between the CRDB and operators approved by the NRA in March 2007.	According to the amendments to Article 84 of the Law on Electronic Communications of July 2008, one-off porting fee can be charged either from operators or from subscribers. Currently, both donor and recipient operators charge subscribers a one-off fee of. €5.00 - €10.00.	Direct routing, QoR with centralised database	Centralised database is operated by the NRA and funded from the NRA budget.	1,897 mobile numbers ported by March 2009 (829 at the end 2008)	0.04%
Turkey	November 2008	Deadline: November 2008 Number Portability Ordinance (Official Gazette No 26421, Feb. 1, 2007). Centralised reference database established on May 9, 2008.	The NRA set the upper limit for inter-operator charges at TRY 2 (€0.90).	Direct routing, ACQ with centralised database (but other methods are not excluded)	Centralised database is operated by the NRA and funded from the NRA budget.	c.a. 1.2m mobile numbers ported by March 2009	c.a. 2%
Albania	Not implemented	Deadline: June 2009 Law on Electronic Communications (Law No. 9918 of May 19, 2008) sets the implementation deadline within 12 months from its entry into force Secondary legislation is required for implementation.	-	-	-	-	-

Country	Implementation	Implementation deadline and legal basis	Inter-operator charge per ported number	Technical solution	NP database financing	Use	
						Ported numbers statistics	% of total mobile numbers
Bosnia & Herzegovina	Not implemented	Deadline: December 2009 Telecom Sector Policy, Official Gazette No. 8/2009, sets the implementation deadline at the end of 2009 Law on Communications (Official Gazette No. 31/2003, Art. 8, 27, 38 and 39) RAK Rule on Number Portability No. 32/2008	Max. BAM 30.00 (€15)	Direct routing, ACQ with centralised database	Centralised database is to be financed by telecom operators.	-	-
Montenegro	Not implemented	Deadline: not defined. Legal basis: Article 110 of Law on Electronic Communications Secondary legislation is required for implementation.	-	-	-	-	-
Serbia	Not implemented	Deadline: not defined. Telecommunications Law provides no legal basis for number portability	-	-	-	-	-
Kosovo	Not implemented	Deadline: not defined. Telecommunications Law provides no legal basis for mobile number portability	-	-	-	-	-

Table E.5 - Availability of mobile number portability

Table E.6 shows 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 operator. In most cases, in the absence of general number portability, it is not available for VoIP. Croatia and Montenegro have created dedicated number ranges for non-nomadic VoIP, respectively 075 and 078.

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. Nomadic VoIP services are therefore 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.

Country	Access to subscriber numbers for VoIP				Number portability			
	Geographic		Non-geographic dedicated range(s) for VoIP		Geographic		Non-geographic	
	Non-nomadic VoIP	Nomadic VoIP	Non-nomadic VoIP	Nomadic VoIP	Non-nomadic VoIP	Nomadic VoIP	Non-nomadic VoIP	Nomadic VoIP
Croatia	No	No	Yes (075)	No	No	No	Yes	No
FYROM	Yes	Yes	No	No	Yes	Yes	No	No
Turkey	No	No	No	No	NP not implemented		NP not implemented	
Albania	No	No	No	No	NP not implemented		NP not implemented	
Bosnia & Herzegovina	Yes	No	No	No	NP not implemented		NP not implemented	
Montenegro	No	No	Yes (078)	No	NP not implemented		NP not implemented	
Serbia	No	No	No	No	NP not implemented		NP not implemented	
Kosovo		No	No	No	NP not implemented		NP not implemented	

Table E.6 - Availability of numbers and number portability for VoIP

Notes

FYROM: 260,000 geographic numbers have been issued to alternative fixed operators that offer voice telephony services based on LLU or WiMAX as access technologies; 18,000 geographic numbers to CableTV operators offering voice telephony services. The NRA also issued 23 non-geographic free-phone numbers (0800-9abcd) to VoIP providers that offer outgoing international calls using pre-paid calling cards (these numbers are not assigned to the subscribers and do not offer the possibility of receiving calls).

Albania: Article 90(3) of the new Law on Electronic Communications provides for the use of non-geographic numbers by nomadic VoIP services. Secondary legislation is being prepared by the NRA.

3. Reference interconnection offer

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

Table E.7 gives an overview of fixed and mobile operators with SMP that are required to publish RIOs and the number of interconnection agreements made, grouped by the type of interconnection. While considerable work has been undertaken on the preparation and approval of RIOs, there are a significant number of gaps, especially for MNOs. In the case of FYROM, there is an appeal underway against changes introduced by the NRA.

Country	Status of RIO		Number of interconnection agreements		
	Fixed operators with SMP	Mobile operators with SMP	Fixed – Fixed	Fixed – Mobile	Mobile - Mobile
Croatia	T-HT (Hrvatske Telekomunikacije, T-Com) T-HT RIO approved by the NRA on February 16, 2009 and valid from March 1, 2009. RIO applies only to interconnection with fixed networks. Mobile operators have to negotiate interconnection with T-HT on commercial terms.	T-Mobile Hrvatska and VIPnet Current RIOs approved by the NRA on February 16, 2009 and valid from March 1, 2009.	36	19	3
FYROM	Makedonski Telekom Current RIO approved by the NRA on February 12, 2009 and valid from February 23, 2009.	T-Mobile and Cosmofon Current RIOs approved by the NRA on July 25, 2008 and valid from August 2008.	6	6	3
Turkey	Türk Telekom RIO approved by the NRA and valid from November 2008	Turkcell, Vodafone and Avea RIOs approved by the NRA and valid from August 2008	37	53	3
Albania	Albtelecom RIO approved by the NRA on February 10, 2009 and valid from February 18, 2009	Vodafone Albania and AMC RIOs approved by the NRA on February 10, 2009 and valid from February 18, 2009	56	112	3
Bosnia & Herzegovina	BH Telecom, RIO valid from February 2008 HT Mostar, RIO valid from October 2007 Telekom Srpske, RIO valid from October 2007 (with annexes)	No RIO published BH Telecom, Telekom Srpske and HT Mostar are designated as having SMP in mobile telephony services	15	-	-
Montenegro	Crnogorski Telekom, RIO approved by the NRA and valid from April 2008	No RIO published ProMonte and T-Mobile were designated as having SMP in mobile telephony services under Telecommunications Law of 2000, but regulatory obligations were never applied in practice.	1	6	3
Serbia	Telekom Srbija Standard RIO, August 2008 RIO for interconnection with VoIP providers, March 2009 Not approved by the NRA	No RIO published No operator designated as having SMP	0	3	3
Kosovo	PTK, valid from January 2007 Approved by the NRA on January 12, 2007	No RIO published Vala has SMP in public mobile services market	1	1	1

Table E.7 - RIOs for fixed and mobile operators and number of agreements

Notes:
Turkey: There are no alternative fixed access networks in Turkey. All interconnection agreements with alternative fixed operators have been concluded so far with long distance carriers.

4. Reference unbundling offer

Table E.8 below shows the legal basis for a reference unbundling offer (RUO), with the set-up and monthly charges for a fully unbundled local loop and a shared loop. The levels of adoption by alternative operators are shown in terms of both the number of operator agreements and the number of loops that have been unbundled.

The number of loops unbundled to date is very small, being almost exclusively in Croatia where the RUO was first implemented in October 2005. Although Turkey has had a RUO since 2006, the number of unbundled loops is still very limited (approximately 8000 out of a network of around 18 million lines).

Albania, Bosnia & Herzegovina, Serbia and Kosovo have yet to adopt RUOs.

Country	Status of RUO Legal basis	One-off and monthly prices		Implementation	
		Fully unbundled loop	Shared loop	Number of LLU agreements	Number of unbundled loops
Croatia	T-Com RUO approved with changes by the NRA on July 21, 2008. The first RUO was published in October 2005 in accordance with LLU Ordinance of April 6, 2005 (amended August 2005).	• One-off: HRK 370 (€51.00) • Per month: HRK 52.14 (€7.19)	• One-off: HRK 550 (€75.80) • Per month: HRK 22.37 (€3.08)	5	92,730 as of end 2008
FYROM	Makedonski Telekom RUO In September 2008 the NRA adopted a new bylaw on LLU. Makedonski Telekom submitted a new RUO, which was approved by the NRA in December 2008. The new RUO also includes unbundling of non-active loops and. Naked-DSL. The first RUO was approved by AEC in May 2006.	• One-off (for a block of 100 loops with physical collocation): MKD 7,214.00 (€117.87) • One-off (for a block of 100 loops with distant collocation): MKD 7,214.00 (€117.87) • Per month: MKD 430.00 (€7.03)	• One-off (for a block of 100 loops with physical collocation): MKD 7,295.00 (€119,2) • One-off (for a block of 100 loops with distant collocation): MKD 7,242.00 (€118.38) • Per month: MKD 142.85 (€2.33) • Naked-DSL, per month: MKD 430.00 (€7.03)	1	2,117 as of end 2008
Turkey	Türk Telekom RUO The current RUO was revised at end 2008 and published by ICTA on February 22, 2009. The Communiqué on LLU of July 20, 2004 established that Türk Telekom must submit its RUO to NRA for approval every year. The first RUO was approved in November 2006.	• One off: TRY 100 (€50.00) • Per month: TRY 17 (€8.50)	• One off: TRY 110 (€55.00) • Per month: TRY 5.75 (€2.90)	10	7,865 as of end 2008
Albania	RUO not available The NRA adopted TRE Regulation No 416 of Dec. 7, 2007 on access and interconnection including rules for the publication and content of RUO, but there is no obligation for Albtelecom to provide LLU or to publish an RUO.	-	-	-	-

Country	Status of RUO Legal basis	One-off and monthly prices		Implementation	
		Fully unbundled loop	Shared loop	Number of LLU agreements	Number of unbundled loops
Bosnia & Herzegovina	RUO not available Regulation on LLU adopted by the NRA on May 27, 2008 According to the new sector policy adopted by the Council of Ministers on December 18, 2008, RUOs must be implemented not later than by the end of 2009.	-	-	-	-
Montenegro	RUO not available	-	-	-	-
Serbia	RUO not available	-	-	-	-
Kosovo	RUO not available	-	-	-	-

Table E.8 - Status of the RUO and local loop unbundling charges

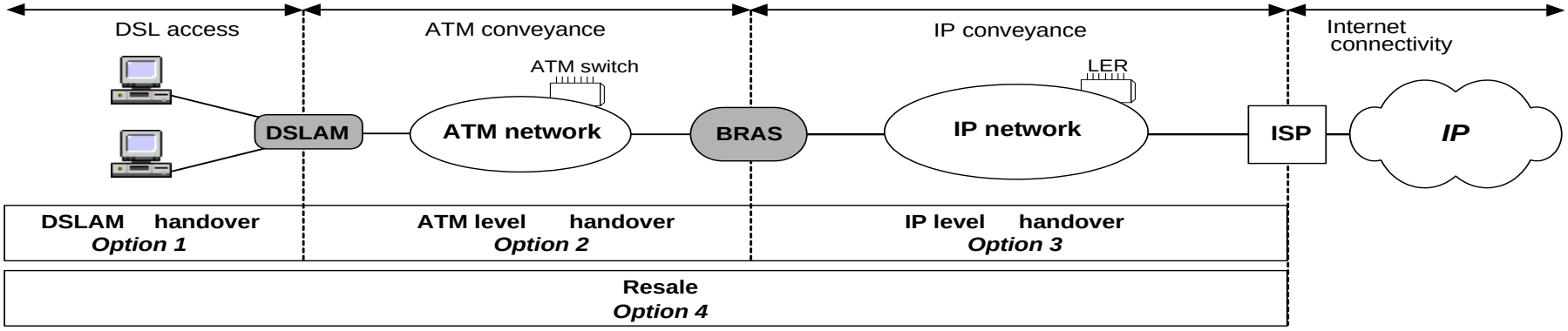
Notes:

FYROM: The alternative operator On.Net launched its commercial activities using LLU in May 2008.

Turkey: There is no distinction between the charges applied to already active lines and to newly built ones.

5. Wholesale broadband access

Figure 34 shows the various possible handover points for DSL traffic between an incumbent operator and an alternative operator or ISP.



DSLAM: DSL Access Multiplexer / ATM: Asynchronous Transfer Mode / BRAS: Broadband-Remote Access Server / LER: Router

Figure 34 - DSL interconnection

DSL interconnection services – bitstream access (BSA)

Option 1 – handover at the DSLAM.

Option 2 – handover at the ATM network level, either at:

- the 'parent' ATM switch (i.e., the ATM switch closest to the DSLAM); or
- one or more 'distant' switches in the ATM network (involving additional conveyance across the ATM network by the incumbent);

Option 3 – handover at one or more points on the IP network of the incumbent.

Resale service

Option 4 – resale of end-to-end DSL service between the end-user and the ISP.

Table E.9 shows where bitstream access and resale offers are available, either on a commercial basis or mandated by the NRA. It shows the availability of the four options shown in Figure 34.

The extent of the adoption of the various options is shown in the final columns. Croatia has had some success with Option 3, while Turkey has made some progress with Options 3 and 4, with over 300,000 lines supplied to alternative operators using both options. Serbia has done well, with nearly 70,000 lines using Option 3.

Country	Legal basis BSA/resale offered on commercial basis if not mandated?	Option 1 DSLAM level	Option 2 ATM/Ethernet handover	Option 3 IP handover	Option 4 End-to-end resale	Implementation	
						Number of BSA/resale agreements	Number of broadband lines with BSA/resale by alternative operators
Croatia	In February 2009 the NRA approved T-Com's new reference offer for wholesale broadband access. The first version was approved in December 2007, included as Annex to the RIO for ISPs. Two types of service are offered: • ADSL Transport, which covers the transmission capacity from DSLAM to BRAS with handover in the incumbent's IP network, and • Wholesale ADSL access, which covers the bitstream access from DSLAM to the customer. T-Com had been providing ADSL Transport service since 2006, which corresponds most closely to ERG Option 3, but where the retail customer is charged by T-Com for the ADSL line.	Yes Wholesale ADSL access	Not available	Yes ADSL Transport plus Wholesale ADSL access	Not available	5 (Option 3)	16,207 as of end 2008

Country	Legal basis BSA/resale offered on commercial basis if not mandated?	Option 1 DSLAM level	Option 2 ATM/Ethernet handover	Option 3 IP handover	Option 4 End-to-end resale	Implementation	
						Number of BSA/resale agreements	Number of broadband lines with BSA/resale by alternative operators
FYROM	Bylaw on wholesale bitstream access and bitstream resale (adopted in December 2008, published in Official Gazette of No. 154/2008). According to the bylaw, Makedonski Telekom was obliged within 60 days from the publishing of the bylaw to submit to the Agency BSA/resale offer for its approval. BSA with handover at IP-level and resale have been offered commercially since 2007.	Yes	Yes	Yes	Yes	1 commercial agreement (Option 4)	17,000 as of end 2008
Turkey	The obligation to provide wholesale bitstream access at IP level and resale was imposed on Türk Telekom by the TA board Decision No. 2004/535 of Oct. 6, 2004. The wholesale tariffs for bitstream access were approved in July 2005. The first reference offers were approved in August 2007. In July 2007, the TA also requested Türk Telekom to prepare by Jan.1, 2008 a wholesale BSA offer with handover at the ATM level (Option 2). Reference ATM level BSA Offer was approved in December 2008 and will enter into force on July 1, 2009.	Not available	From July 1, 2009 Turk Telekom Reference ATM level BSA offer was published on March 10, 2009.	Yes Türk Telekom's Reference IP level BSA offer published on March 10, 2009	Yes Türk Telekom's Reference Resale ADSL/G.SHDSL offer published on March 10, 2009	13 (Option 3) 20 (Option 4)	281,288 (Option 3) 43,405 (Option 4) as of January 2009 Massive migration from resale to BSA with IP handover during 2008, see notes below table.
Albania	No	Not available	Not available	Not available	Not available	-	-
Bosnia & Herzegovina	No	Not available	Not available	Not available	Not available	-	-
Montenegro	No	Not available	Not available	Not available	Not available	-	-
Serbia	Telekom Srbija offers wholesale ADSL on commercial basis	Not available	Not available	Commercial offer	Not available	around 30	103,701 as of end 2008
Kosovo	No	Not available	Not available	Not available	Not available	-	-

Table E.9 - Availability of wholesale fixed broadband access offers

Notes:

Turkey: As a result of a campaign launched by the incumbent operator in late 2008, alternative operators have largely migrated their resale-based subscribers (Option 4) to BSA with IP-level handover (Option 3). The total number of broadband lines with alternative operators has also increased with the addition of new connections. For comparison, in early 2008 there were 1,200 BSA-based lines offered by alternative operators and 200,000 resale-based lines.

6. Wholesale line rental

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

Table E.10 shows the availability of WLR, the legal basis, the prices and the adoption. 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.

Country	Available since when?	Legal basis for the imposition of WLR	Pricing rule set by NRA?	Publication of a reference offer	Implementation	
					Number of WLR agreements	Number of WLR lines
Croatia	No	None	-	-	-	-
FYROM	From November 2008	Bylaw on wholesale line rental, adopted in December 2008	Retail minus: 20% to 35%	Yes, approved and published in March 2009. The approved price is based on 'retail minus 20%'	1	1,233
Turkey	No	None	-	-	-	-
Albania	No	None	-	-	-	-
Bosnia & Herzegovina	No	None	-	-	-	-
Montenegro	No	None	-	-	-	-
Serbia	No	None				
Kosovo	No	None	-	-	-	-

Table E.10 - Availability of wholesale line rental

7. Implementation of wholesale offers in practice

Table E.11 summarises the state of play with all types of wholesale offer. The large number of blank entries indicates the lack of progress.

Nonetheless, Croatia with fully unbundled loops and bitstream access is in a strong position, gaining experience for all parties. Turkey and Serbia have some success with BSA.

Country	Fully unbundled lines		Shared lines		Bitstream access		Broadband resale		Wholesale line rental	
	Number of agreements	Number of lines	Number of agreements	Number of lines	Number of agreements	Number of lines	Number of agreements	Number of lines	Number of agreements	Number of WLR lines
Croatia	5	92,730	2	1,252	5	16,207	-	-	-	-
FYROM	1	2,117	1	-	-	-	1	17,000	1	1,233
Turkey	10	23	10	7,842	13	281,288	20	43,405	-	-
Albania	-	-	-	-	-	-	-	-	-	-

Country	Fully unbundled lines		Shared lines		Bitstream access		Broadband resale		Wholesale line rental	
	Number of agreements	Number of lines	Number of agreements	Number of lines	Number of agreements	Number of lines	Number of agreements	Number of lines	Number of agreements	Number of WLR lines
Bosnia & Herzegovina	-	-	-	-	-	-	-	-	-	-
Montenegro	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	c.a. 30	c.a. 150,000	-	-	-	-
Kosovo	-	-	-	-	-	-	-	-	-	-

Table E.11 - Implementation of wholesale offers in practice

8. National roaming, mobile access and call origination

Table E.12 shows the commercial and mandated offers of access to mobile networks.

Country	Legal obligation to offer		Commercial reality
	Mobile access and call origination for MVNOs and service providers	National roaming	
Croatia	Mobile operators with SMP have been required to provide open access to their networks under article 52 of the previous Telecommunications Law of 2003. On Oct. 23, 2008 HAKOM issued a decision requesting T-Mobile to offer MVNO access to Telcro within 60 days from the decision. The decision was adopted upon Telcro's request after unsuccessful negotiations with T-Mobile, based on the SMP obligation imposed on T-Mobile under the previous Law. However, according to HAKOM draft decision published for consultation until April 20, 2009, the market for wholesale mobile access and call origination does not satisfy the three criteria test and should not be subject to ex ante regulation.	2G operators were obliged to provide national roaming for new 2G operators for at least three years from the time that the new operator reaches 20% coverage of the population.	National roaming 2G-2G: • Tele2 on VIPnet (from June 2005 until June 2008) • Tele2 on T-Mobile (from June 2008 until June 2011) Wholesale call origination: Both mobile operators with SMP, T-Mobile and VIPnet, provide wholesale call origination for Premium Rate Service (PRS) providers. Access terms are negotiated commercially and not regulated in the RIOs.
FYROM	No	No	National roaming 2G-2G: VIP on T-Mobile (from September 2007)
Turkey	According to the analysis of market 15/2003, Turkcell is designated as having SMP and obliged to provide call origination upon request. No specific regulation on MVNO and service provider access.	No National roaming may be imposed by the NRA within the scope of access obligations defined under Article 15 of Electronic Communications Law	No

Country	Legal obligation to offer		Commercial reality
	Mobile access and call origination for MVNOs and service providers	National roaming	
Albania	Access and Interconnection regulation provides an obligation on mobile operators with SMP to provide access to their networks for MVNOs.	No	No
Bosnia & Herzegovina	No	Mobile 2G operators were required to have national roaming with each other to ensure national coverage.	National roaming 2G-2G: Between all the three mobile operators
Montenegro	No	No	No
Serbia	No	No	National roaming 2G-2G: VIP – mt:s (Telekom Srbija)
Kosovo	No specific obligations, but MVNO operations can be launched subject to a commercial agreement between an MNO and a service provider. The NRA issued an MVNO framework in February 2008 (amended in May 2008) that clarifies licensing, numbering, interconnection and other service provision aspects for MVNO operations.	No	Two MVNO licences issued so far. Dardafone was licensed on June 12, 2008 and Dukagjini Telecommunications on June 24, 2008. Dardafone has a network access agreement with the MNO - Vala, whereas Dukagjini has with the MNO - IPKO.

Table E.12 - National roaming, mobile access and call origination

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

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

Table E.13 indicates the markets in which price controls have been imposed on operators having SMP. It also identifies the type of price control applied by the NRA and the specific Cost Accounting System (CAS) it has mandated:

LRAIC: Long Run Average Incremental Costs

LRIC: Long Run Incremental Costs

FDC: Fully Distributed Costs

EDC: Embedded Direct Costs

Where the LRIC model is used, it shows whether the costs have been calculated using:

TD: a top-down model (starting from the SMP operator's accounting data);

BU: a bottom-up model of an efficient network; or

BU/TD a reconciliation of the other two models.

A description of the CAS and an annual statement concerning compliance are required to be published (Article 13(4) of the Access Directive).

Country	Markets/activities	Pricing rule set by NRA?	Methodology mandated by NRA			Legal basis
			Cost base	Cost standard	BU, TD or reconciliation	
Croatia	Fixed interconnection and LLU	Benchmarking (EU average) LRIC is foreseen	-	-	-	Under the previous Telecommunications Law of 2003, article 56 (16) fixed and mobile operators with SMP were required to set cost-oriented interconnection charges subject to the NRA approval. Under Article 7 (12) of the Ordinance on network access and interconnection, the NRA has applied benchmarking against the EU Member States to validate the cost-orientation of the proposed wholesale charges. Under Article 128 of the Electronic Communications Act of 2008, the regulatory obligations imposed under the previous law remain in force until the NRA completes the new market analysis procedure.
	Mobile call termination	Benchmarking (EU average) LRIC is foreseen	-	-	-	
FYROM	LLU, fixed interconnection	Cost orientation	Current cost Forward-looking cost	FDC (from 2006 until LRIC was implemented in 2008) LRIC (new prices approved in 2008)	Top-down	• Law on Electronic Communications • Rules on the manner of recording the accounting separation related to interconnection and/or access activities, adopted in December 2005 • Rules on allocation of costs and capital employed, adopted in December 2008 • Rules on establishing the level of information detail to be published in the reference interconnection offers and the manner of their publication, adopted in December 2008 • Rules on establishing the level of the information detail to be published in the reference offer for unbundled access to local loop, adopted in September 2008.
	Call termination on individual mobile networks	Benchmarking (from 2008) Cost orientation (foreseen from 2009)	Current cost	Benchmarking (from 2008) LRIC (foreseen from 2009)	Not applicable	• Rules on establishing the level of information detail to be published in the reference interconnection offers and the manner of their publication, adopted in December 2008 • AEC Decision of January 18, 2008 designating T-Mobile and Cosmofon as having SMP on mobile call termination market.
	Wholesale leased lines	Benchmarking				• Rules on the provision of the minimum set of leased lines, and rules on the provision of terminating segments of leased lines, both adopted in September 2008.

Country	Markets/activities	Pricing rule set by NRA?	Methodology mandated by NRA			Legal basis
			Cost base	Cost standard	BU, TD or reconciliation	
	Wholesale bitstream access	Retail minus				• Rules on the provision of BSA and resale of bitstream service, adopted in December 2008. The pricing rule is set based on the Commission Recommendation of March 29, 2005 on the provision of leased lines in the EU — Part 2 — pricing aspects of wholesale leased lines part circuits (OJ L 83 of 01.04.2005 (2005/268/EC))
	Wholesale line rental	Retail minus 20%				• Rules on provision of the wholesale subscriber line rental service, adopted in December 2008
Turkey	Leased lines	Cost orientation	Forward-looking	LRIC	Reconciliation	Articles 29-30 of Telephone and Telegraph Law no 406, Article 10 of Tariff Ordinance
	LLU	Benchmarking Retail Minus	-	-	-	Articles 7 and 11 of Access and Interconnection Ordinance and Communiqué on LLU. Turk Telekom is subject to price control obligation based on its SMP designation on the relevant market
	Fixed interconnection	Benchmarking Evaluation of TD costs	-	-	-	Article 11 of Access and Interconnection Ordinance. Turk Telekom is subject to price control obligation based on its SMP designation on the relevant markets
	Mobile call termination	Benchmarking Evaluation of TD costs	-	-	-	Article 11 of Access and Interconnection Ordinance. Turkcell, Vodafone and Avea are subject to price control obligation based on their SMP designation on the relevant market
Albania	Fixed interconnection	Benchmarking (EU 2006 average) BU-LRAIC is foreseen in 2009	-	-	-	Articles 45, 57 and 59 of the Law on Electronic Communications. Albtelecom is subject to price control obligation based on its SMP designation on the relevant markets
	Mobile call termination	Benchmarking (EU 2007 average) BU-LRAIC is foreseen in 2009	-	-	-	Articles 45, 57 and 59 of the Law on Electronic Communications. AMC and Vodafone are subject to price control obligation based on their SMP designation on the relevant markets
Bosnia & Herzegovina	Fixed interconnection	Benchmarking	-	-	-	RAK regulation on interconnection of March 11, 2002 Communications Law of 2002, article 21 (1) requires that the principle of cost orientation shall be applied to determine the level of the tariffs charged by companies having SMP.

Country	Markets/activities	Pricing rule set by NRA?	Methodology mandated by NRA			Legal basis
			Cost base	Cost standard	BU, TD or reconciliation	
Montenegro	Fixed interconnection	Benchmarking	-	-	-	NRA decision of April 15, 2008 approving RIO of Crnogorski Telekom
Serbia	None	None	-	-	-	-
Kosovo	Fixed interconnection	Benchmarking	-	-	-	Based on section 6, paragraph 4, section 53, 57 of Law on Telecommunications, and also based on section 9 of the License for fixed national services granted to PTK, the NRA approved PTK's RIO on January 12, 2007.
	Mobile call termination	Benchmarking	-	-	-	TRA ruling of December 12, 2007 setting MTRs in a dispute between PTK Mobile (Vala) and Ipkonet mobile

Table E.13 - Price control and regulatory cost accounting obligations

Notes:

Serbia: Telecommunications Law of 2003, articles 9, 10, 43, 44, 56, 57 requires fixed operators with SMP to set cost-oriented prices. This provision has not been implemented in practice. On October 14, 2008, RATEL approved Rules on the application of the cost-accounting principle, separate accounts and reporting (Official Gazette No. 103/08) that foresees implementation of FAC HCA cost accounting model by July 2010 and LRIC model by July 2012 for operators designated as having SMP in the relevant markets.

F. Universal service

1. Scope of universal service and provider designation mechanism

Universal Service Directive 2002/22/EC requires any designation of a universal service (US) provider to be carried out by "an efficient, objective, transparent and non-discriminatory designation mechanism, whereby no undertaking is *a priori* excluded from being designated". These rules allow the designation of one or more undertakings to guarantee the provision of universal service and may also designate different undertakings or sets of undertakings to provide different elements of universal service and/or to cover different parts of the national territory. Furthermore, according to Article 8 and Recital 8 in the Universal Service Directive, mobile networks may be used for the provision of universal service. This could reduce the cost of universal service provision.

Table F.1 shows the designation of the universal service providers in SEE countries:

- the scope of universal service defined by national legislation;
- which operator(s) has been designated to provide the US obligations or where no designation procedure has been carried out – which providers are currently required to provide the entire scope or specific elements of the universal service;
- the designation mechanism for the US providers and the legal basis;

- technology neutrality of the universal service obligation (e.g., whether there are any restrictions on mobile operators bidding for the provision of a connection to the public telephone network at a fixed location).

Country	Scope of US	Universal service providers	Designation mechanism for the US provider(s)	Technology neutral?
Croatia	• Access to the public voice telephone services through a connection at a fixed location and data communications at a minimum speed of 33.6 kbit/s • Access of end users to at least one comprehensive subscriber directory • Directory enquiry services • Provision of public payphones in the licensed areas • Access to emergency services to all subscribers free of charge • Lower tariffs for services provided to disabled people	HT- Hrvatske Telekomunikacije d.d.	The NRA Council can impose an obligation on one or more providers of public voice services to provide USO, or it can select the most favourable bidder for providing universal services on the basis of a public tender. If a public voice service provider has a market share above 80%, HAT Council oblige that provider to provide USO, without public tender. The public tender procedure can be invoked even if there is public voice service provider with market share above 80% in justified cases, especially for geographically limited areas or on the request of other public voice service providers. On November 28, 2005 the NRA designated T-HT as a USO provider for 5 years term, without public tender.	Yes
FYROM	• Access to publicly available telephone services at a determined geographical location, making and receiving local, national and international telephone calls, facsimile communications and data communications at a minimum speed of 2,400 bit/s • Ensuring access to information in the single directory and directory enquiry services • Provision of public pay telephones • Ensuring conditions for 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	None	Under article 35 of the Law for Electronic Communications, the NRA may designate one or several universal service providers, following a public tender procedure. In January 2008, the NRA started a public tender with pre-qualification for Universal Service provider nomination, in accordance with the Rules on the tender procedure for the selection of universal service providers. Two companies passed the first phase. The NRA is preparing the tender documentation for the second phase.	Yes
Turkey	Access to emergency services to all subscribers free of charge	Türk Telekom	No designation mechanism – the requirement is set out in the concession agreement of Türk Telekom.	No
	Telephone directory services to be provided in the printed or electronic media	Türk Telekom		No
	Provision of public payphones	Türk Telekom		No
	Access to public fixed telephony services	Türk Telekom		No
	Provision of satellite services to Turkish Red Crescent Society	Türksat	No designation mechanism – Türksat is designated for provision of these services (voice and data via satellite)	No
	Digital broadcasting (DVB-T services)	-	No designation mechanism - the technical and legal studies continue.	No

Country	Scope of US	Universal service providers	Designation mechanism for the US provider(s)	Technology neutral?
	Access to basic internet services	Türksat, Türk Telekom	No designation mechanism – Türk Telekom and Türksat are designated to establish the infrastructure of the basic internet services for training associations located in rural, high cost areas.	No
Albania	• Access to the telephone service available to the public from a defined geographic location, enabling the user to make and receive local, national and international calls, facsimile communications and data communication at a minimum speed of 32 kbps; • telephone directory; • public payphones; and • equivalent access to and use of telephone service for disabled end-users, including access to emergency calls services and information in telephone directory.	None	Under article 26 of the Law on Electronic Communications, the NRA may designate one or several universal service providers, following a public tender procedure and subject to approval by the Minister	Yes
Bosnia & Herzegovina	Access to emergency services to all subscribers free of charge	All operators	No designation mechanism – the requirement is set out in the license terms	Yes
	Provision of public payphones	• BH Telecom • Telekom Srpske • HT Mostar	No designation mechanism – the requirement is set out in the license terms of the three fixed incumbent operators	No
	Lower tariffs for services provided to disabled and persons with special social needs	• BH Telecom • Telekom Srpske • HT Mostar	No designation mechanism – the requirement is set out in the license terms of the three fixed incumbent operators	No
	Connections to the fixed public telephone network at a fixed location and access to fixed public telephone services at affordable prices, allowing users to make and receive national and international calls, supporting speech, facsimile and/or data communications; provision of directories and directory enquiry services; public pay phones	• BH Telecom • Telekom Srpske • HT Mostar	No designation mechanism – the requirement is set out in the license terms of the three fixed incumbent operators	No
Montenegro	• Access to public fixed telephone services; • equal access to and affordability of publicly available telephone services for disabled users and users with special social needs; • access to emergency services free of charge; • access to telephone directory and directory enquiry services.	None	Under article 54 of the Law on Electronic Communications, the NRA may designate one or several universal service providers for a period of 5 years, following a public tender procedure	Not defined

Country	Scope of US	Universal service providers	Designation mechanism for the US provider(s)	Technology neutral?
Serbia	The minimum scope must include: Access to a public fixed telephone service enabling functional Internet access; special measures for disabled and socially disadvantaged users; free access to emergency services; public payphones and access to telephone directory and directory enquiry services.	Not defined	Not defined	Not defined
Kosovo	Access to emergency services to all subscribers free of charge	All public telecommunications operators	No designation mechanism – the requirement is set out in the licence	Yes

Table F.1 - Universal service scope and provider designation mechanism

Notes:

Turkey: Under the Universal Service Law (No. 5369) of June 16, 2005, the scope of universal service covers fixed telephone services, public payphones, printed or electronic directory services, emergency call services, basic internet services, passenger transport services to places that can be reached only through sea transport, and maritime emergency and security communications services. Apparently the passenger transport services relate to two islands in the Aegean where private companies are not willing to provide services during the winter. In 2006, this list was extended by the Council of Ministers to include two further elements: 1) services oriented to spread information technologies, including computer literacy, to help the development of information society and 2) services for the provision of the digital broadcasting by the utilisation of various broadcast media and technology via digital terrestrial transmitters to cover the entire settlements countrywide. The Universal Service Law envisages a tender procedure for the designation of universal service providers which has not yet been implemented.

Bosnia & Herzegovina: 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. The NRA has submitted a draft decision covering the scope of universal service, undertakings the designation and the funding mechanisms and the requirement for the NRA to set QoS parameters and terms for defining USO funding mechanism. The draft is examined by several government bodies, as part of standard procedure before its adoption by the Council of Ministers.

Montenegro: Chapter VI (Articles 52-52) of Law on Electronic Communications (Official Gazette of Montenegro, № 50/2008) provides legal basis for the Universal service. Universal service is not yet implemented in practice. Under the article 144 of Law on Electronic Communications the NRA was required, no later than 6 months from the entry into force of the law, to adopt the necessary regulations and initiate tender procedure for selection of operator of Universal Service, which was not achieved in practice. Secondary legislation is still under preparation.

Serbia: Under the transitional provisions of the Telecommunications Law, Telekom Srbija was required to provide the “initial scope” of universal services until expiry of its exclusivity rights in June 2005. The initial scope of universal services was defined as comprising access to a public fixed telephone service enabling functional Internet access; special measures for disabled and socially disadvantaged users; free access to emergency services; public payphones and access to telephone directory and directory enquiry services. Following the expiry of Telekom Srbija’s universal service obligations, the Ministry of Information Society and Telecommunications is required to define the scope of universal service based on the proposal of the NRA, while the NRA must designate the provider and establish the universal service fund. In accordance with the Action plan for implementation of the National Strategy for Development of Telecommunications, the Ministry will define the minimal set of universal services in the first half of 2009.

Kosovo: The Law on Telecommunications, Section 21.6, allows the NRA to establish additional conditions for authorizations, based upon the class or category of services, which may include special arrangements for disabled people. Under Section 49, the NRA is also authorized to adopt secondary legislation on the scope of the USO, which may include specific measures for people with disabilities.

2. Universal service funding

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

Table F.2 shows the legal basis for any calculations and reimbursement of costs for the universal service, the method of funding (if any) and the status of implementation.

Country	Legal basis for calculation and reimbursement of USO costs	Method of funding	Implementation
Croatia	Articles 39-40 of the Electronic Communications Act of June 19, 2008 (Official Gazette 73/2008)	Cost sharing The reimbursement of net costs for universal service provision is to be financed by all operators of publicly available telephone services with revenue exceeding 2% of the total revenue in this market. The amount of contributions to be paid by individual operators is to be set in proportion to their market shares.	Not implemented
FYROM	Bylaw on the method of establishing prices for universal service Bylaw on the method of calculating real costs and intangible benefits for the provision of universal service Bylaw on the determination of the level of compensation for the real costs for the provision of the universal service	Cost sharing The reimbursement of net costs for universal service provision is to be financed by the operators and providers with minimum annual gross revenues of €100,000. The contribution may not exceed 1% of the operator's gross revenue received from the provision of public electronic communications networks and services.	Not implemented
Turkey	Law No.5369 on 'The Provision of Universal Services and Making Changes on Some Laws' (Official Gazette No. 25856, June 25, 2005) Ordinance on Principles and Procedures for the Collection of Universal Service Revenues and Execution of Expenditures (Official Gazette No. 26213, June 29, 2006). Net cost of the universal service shall be calculated on the basis of the difference between the net cost when the incumbent operator does not provide services within the scope of universal services and when it provides such service. However, the calculation of the net cost shall also take into consideration the benefits obtained by operators due to provision of the universal service.	According to article 6 of the Universal Service Law of June 2005, contributions to the universal service fund consist of the following: • 2% of the authorization fees collected by the Telecommunications Authority • 1% of net sales revenues of all operators except for GSM operators • 10% of payments by GSM operators to the Treasury • 20% of administrative fines collected by the Telecommunications Authority • 20% of what remains in the budget of the Telecommunications Authority budget after all expenditures are deducted Percentages can be increased by up to 20% by the Council of Ministers. These revenues are collected in the public budget and allocated to the budget of the Ministry of Transport.	Funds are being collected but there has been no decision on compensation payments
Albania	Articles 29 and 30 of the Law on Electronic Communications	Cost sharing is foreseen by Law on Electronic Communications. Universal service fund is to be financed by the undertakings that own public electronic communication networks and provide electronic communication services, and the public electronic communications	Not implemented

Country	Legal basis for calculation and reimbursement of USO costs	Method of funding	Implementation
		services providers, in accordance with the regulations to be adopted by the NRA. The contribution may not exceed 1% of the operator's gross revenue received from the provision of public electronic communications networks and services.	
Bosnia & Herzegovina	None To be adopted during 2009. No reimbursement of USO cost is foreseen before the end of 2009.	Cost sharing is foreseen Contributions will be required from all undertakings providing electronic communications networks and services, set in proportion to their revenues.	Not implemented
Montenegro	USO cost compensation is foreseen by Law on Electronic Communications, Article 57	Cost sharing is foreseen by Law on Electronic Communications, Article 58 Contributions will be required from all undertakings providing electronic communications networks and services, set in proportion to their revenues. If the net USO cost exceeds 1% of the total electronic communications sector revenues in that specific year, the Ministry may provide for additional funding from the state budget.	Not implemented
Serbia	USO cost compensation is foreseen by the Telecommunications Law, Article 50	Cost sharing is foreseen Contributions will be required from other public telecommunications operators in proportion to their market shares. The amounts and timing of such payments have to be set out in a separate regulation to be adopted by the NRA.	Not implemented
Kosovo	USO cost compensation is foreseen by the Law on Telecommunications, Section 49	Not decided	Not implemented

Table F.2 - Universal service funding

3. Quality of service

Article 11 of the Universal Service Directive (2002/22/EC) provides that NRAs may set specific performance targets for the designated universal service providers. The standards are set out in Annex III to the Directive, specifying ETSI EG 201 769-1 version 1.1.1 (April 2000).

Table F.3 shows the quality of service targets set for operators, together with any work done to assess compliance.

Country	NRA imposed performance targets/QoS requirements	Operators subject to QoS requirements	QoS measured according to which standard?	Actual performances against targets published? (date + weblink)	Penalties for non-compliance
Croatia	Yes	HT – Hrvatske telekomunikacije QoS requirements imposed on the universal servce provider are set out in	ETSI EG 201 769-1	Performance indicators published in April 2008.	No

Country	NRA imposed performance targets/QoS requirements	Operators subject to QoS requirements	QoS measured according to which standard?	Actual performances against targets published? (date + weblink)	Penalties for non-compliance
		the Ordinance on Universal Services adopted by the NRA on February 16, 2009.			
FYROM	Yes	Every operator or provider of public voice telephony services has an obligation to publish its QoS parameters for the previous year on its website and to inform the NRA about the measured QoS parameters.	ETSI EG 201 769-1	After the check and validation of the reported data for QoS parameters, AEC will publish them on its website.	No
Turkey	Yes	Public fixed networks operators with SMP (currently, Turk Telekom) have an obligation to inform the NRA about the measured QoS parameters defined by NRA for each quarter.	ETSI EG 202.057-1	No	Yes
Albania	Yes	Every operator or provider of public voice telephony services (fixed and mobile) has an obligation to report to AKEP its QoS parameters for the previous year and for the first 6 months.	ETR 138/1994 ITU-T E.426 WTDR-1994*	No	No
Bosnia & Herzegovina	Yes	Fixed and mobile operators with SMP	ETSI EG 201	No	No
Montenegro	Not yet	All public operators (foreseen according to the draft rulebook)	ETSI EG 201 (foreseen)	No	No
Serbia	QoS parameters are set out in the operators' licences	All licensed public fixed and mobile network operators	ETSI EG 201 769-1 GSM: Handover success rate ≥95% Call success rate ≥98% Dropped call rate ≤2% UMTS: BLER ≤1%	No	No
Kosovo	QoS parameters are set out in the operators' licences	All licensed public fixed and mobile network operators	ETSI EG 201 769-1	No	No

Table F.3 - Application of Quality of Service requirements

Notes:
FYROM: In June 2006, the NRA adopted Rules on technical requirements for the quality of universal service. No US providers designated yet.
Turkey: GSM operators are obliged to fulfil QoS requirements: call block rate must be less than 5% of total calls and call drop rate must be less than 2% of total calls. For more details, see Ordinance on Quality of Service in the Telecommunications Sector. This secondary legislation is to be revised in 2009.

Table F.4 shows the results of QoS measurements for key parameters according to ETSI indicators (1-5).

Country	Supply time for initial connection	Fault rate per access line per year	Fault repair time (hours: minutes)	Unsuccessful call ratio	Call set-up time (seconds)
Croatia	95% of requests are fulfilled within 42 days	11%	30 hours for 80% on target date for faults on access lines 74 hours for 95% on target date for faults on access lines; 25 hours for 80% on target date for all other faults 68 hours for 80% on target date for all other faults.	0.903% for national calls within fixed network 2.067% for international calls	1.625 seconds for 95% for national calls 5.000 seconds for 95% for international calls
FYROM	95% of requests are fulfilled within seven calendar days. 99% of requests are fulfilled within fourteen calendar days.	13%	80% of reported faults are repaired within 23:12:49 hours. 95% of reported faults are repaired within 51:29:25 hours.	2.74% for national calls 0.01% for international calls	0.936 sec for national calls 3.166 sec for international calls
Turkey	Not reported	5.56%	80% of faults on access lines are repaired within 24 hours 95% in 48 hours	1.2% for national calls Not available for international long distance calls	Not reported
Albania	Not reported	4.4%	50 minutes	0.15% for local calls 1.73% for national calls 1.73% for international calls	Not reported
Bosnia & Herzegovina	8-22 days It depends on technical possibilities.	13-26%	80% faults - 28:00 - 51:30 95% faults - 125:18	3.01% for national calls 4.47% for international calls 1.15% for fixed to mobile calls	0.05 - 4 seconds
Montenegro	Normally 1-2 days Maximum 7 days, if technical conditions are fulfilled.	Not available	4 hours	0.1% for local Not available for long distance	0.2 sec for local calls
Serbia	15 days (if technically possible)	30%	61 50 (latest)	1.01% for local calls 5.7% for long distance calls	1.50
Kosovo	6.4 days	0.3%	24 hours	0.2%	0.50

Table F.4 - Quality of service measurements of fixed incumbent operators

G. Fixed retail telephony tariffs

The reference date for the information in this section is December 31, 2008.

Regulatory objectives of pro-competitive telecommunications policies are aimed at protecting the interests of consumers in terms of choice, price, quality of service and value for money, in particular through promoting open and competitive markets. Retail prices represent one of the most important indicators enabling to assess the outcomes of regulatory policies.

Historically, telecommunications operators and regulators have set retail prices for network access as low as possible. Prices for other services, such as long distance calls, have been kept high to subsidise low access prices. With the introduction of competition, such an approach becomes untenable as new entrants concentrate on provision of services with high margins and avoid services priced below cost. A policy of rebalancing seeks to increase access prices, and reduce prices for services that have traditionally subsidized low access prices. The objective is to ensure that the price for each service reflects the underlying cost of providing that service.

Regulators usually allow several years for implementing tariff rebalancing over several years in order to soften the consequences for consumers. Furthermore, when monthly rentals and local call tariffs are increased, it has been common to differentiate between residential and business tariffs. At the end of the process, lower call tariffs can stimulate demand for access, helping to mitigate the effects of increased access prices.

However, some consumers, typically low-income or low-usage customers may experience an increase in their telecommunications costs as a result of the tariff rebalancing. The policy response has been to protect such users with targeted subsidies or special tariff packages.

1. Tariff rebalancing and regulation of retail tariffs

Table G.1 shows the extent of the regulation of retail prices of fixed operators designated as having SMP. In particular, it identified progress towards rebalancing of the retail tariffs of the incumbent operator. Any requirements for the advance notification of new retail prices to the NRA or the ministry are specified, together with the approval process, whether it must be granted or whether tacit approval is possible, after a period of notification has elapsed.

Retail price control methodologies may include one or more of the following:

- compliance with a price cap regulation that has been set for the specific service(s);
- price squeeze tests, one or both of:
    - Test 1: SMP operator's own costs: There is a price squeeze when the proposed retail prices would not cover the SMP operator's own network and commercial costs.
    - Test 2: Costs of an "efficient alternative operator": There is a price squeeze where the proposed retail prices could not be replicated by an alternative operator using the most efficient combination of its own network, commercial infrastructure and wholesale services purchased from the SMP-operator with prices fixed in the wholesale reference offer; and
- international benchmarking.

Country	Status of tariff rebalancing (target date if established)	Retail services covered	Advance notification requirements	Notice period	Formal or tacit approval	Assessment method (for formal approvals)
Croatia	Ongoing	Fixed voice telephony (T-Com)	Yes – to HAKOM	30 days	Formal	Test 1
FYROM	Ongoing	Fixed voice telephony (Makedonski Telekom)	Yes – to AEC	30 days	Tacit	According to the Bylaw on Retail price regulation (Official Gazette of the Republic of Macedonia, No. 154/08 of December 12, 2008, AEC may apply one of the following methods: • Price cap • Individual tariff approval • Benchmarking and • Cost based prices
Turkey	Ongoing	Fixed voice telephony (Türk Telekom)	Yes – to ICTA	4 weeks	Formal	Price cap
Albania	Ongoing In September 2008 the NRA approved increase in monthly rentals and local call tariffs and reductions in national and international call tariffs.	Fixed voice telephony (Albtelecom)	Yes – to AKEP	30	Formal	Price cap
Bosnia & Herzegovina	The second phase of tariff rebalancing will be carried out during 2009-2011. Consultation on the draft Rule on Changes and Amendments to Rule on the Model of Tariff Rebalance of Voice Telephone Services was completed in November 2008	Fixed voice telephony services (three incumbent operators): • access fee • monthly subscription • per minute price of national calls • per minute price of international calls	Yes – to RAK	1 month	Formal	Benchmarking/Price cap
Montenegro	Completed on August 31, 2007	Fixed voice telephony	Yes – to EKIP	8 days	Formal	Price cap
Serbia	To be completed in Q3 2009 In October 2008 the NRA approved an increase in PSTN monthly rentals, call impulse charges, and uniform call prices for residential and business customers.	Fixed voice telephony (Telekom Srbija) Cable TV services (SBB)	Yes – to RATEL	Not specified	Formal	Benchmarking Cost based model (foreseen in 2009)
Kosovo	Ongoing	Fixed voice telephony (PTK)	Yes	Not specified	Formal	Cost based model

Table G.1 - Tariff rebalancing and regulation of retail tariffs

2. Retail price caps

Under Article 17 of the Universal Service Directive (2002/22/EC), NRAs are empowered to impose regulatory obligations to control individual tariffs (*inter alia*, by price caps) on undertakings with SMP in a given retail market if they have concluded, following a market analysis, that:

- the given market is not competitive; and
- obligations imposed on the wholesale market under the Access Directive (2002/19/EC) and the obligation to offer carrier selection and/or carrier pre-selection under Article 19 of the Universal Service Directive have failed to address competition concerns.

Table G.2 shows where retail price caps have been imposed on operators and the period of their validity.

Country	Validity of current price cap	Price cap (or sub caps)	
Croatia	None	-	
FYROM	None	Price cap imposed on Makedonski Telekom expired following the termination of the concession contract in August 2008	
Turkey	January 1, 2007 – December 31, 2008 ICTA may extend the validity period until Dec. 31, 2009	The Price Cap Communiqué (Official Gazette Jan. 16, 2007 No: 26405) sets a price cap for the service basket that includes: • PSTN, ISDN BRA and ISDN PA connection, transfer and monthly rental; and • local, national call services, Internet access call origination, calls to mobile networks and international call services. The weighted average price of the services included in the basket cannot increase more than the rate of inflation (CPI) minus a productivity factor, i.e. CPI – 3.3%, plus any unused accumulated allowed annual price changes from the preceding periods during the price cap term. In addition, two sub-caps apply as follows: • CPI-3.3% for local calls • CPI-0% for ISDN PRA monthly rentals	
Albania	Albtelecom September 1, 2008 – August 31, 2010	RPI-RPI (effectively zero) for the basket (residential and business): • one-off installation fee • monthly subscription fee • local calls • national calls • retention rate for calls to mobile • retention rate for international calls	Sub caps: • RPI+15% for monthly rental residential • RPI+4.2% for local calls (residential peak RPI-X ≤ 8%) • RPI-15% national calls (within Albtelecom network) • RPI-20% for international calls
	AMC and Vodafone September 1, 2008 to August 31, 2010	RPI-23% for one prepaid tariff option for both MNOs (Albacarta for AMC and Vodafone Card for Vodafone)	Sub caps: • RPI-28% for retention rate for calls to other MNOs (national) • RPI-28% for retention rate for calls to fixed network (national)

Country	Validity of current price cap	Price cap (or sub caps)
Bosnia & Herzegovina	The second phase of tariff rebalancing will be carried out during 2009-2011.	To be defined
Montenegro	None	-
Serbia	None	-
Kosovo	None	-

Table G.2 - Retail price caps

3. Call charging system

The charges for public fixed voice telephony services can comprise two components: an initial or set-up charge applied at the beginning of a call and a charge for the remainder of the call, that may not depend on the type of initial charge used.

Initial charges can be of four different types:

- Call set-up charge set at the start of the call (when the call is answered). This charge does not include any call time. Per second or per unit charges apply from the beginning of the call.
- Initial charge that is used in the same way as call set-up, but additionally includes a certain number of seconds of call time before normal time-based charging starts.
- Unit charge in effect works the same way as the initial charge: A full unit is charged at the beginning of the call, providing a certain number of seconds call time until the next unit is charged. Depending on the principle used by the operator (synchronous or asynchronous) the number of seconds call-time in the first unit may be less than the specified unit duration.
- Minimum charging is normally used with per second billing, to ensure the operator obtains a minimum revenue per call. If the call duration is short, the actual call charge may be less than the minimum charge. In such cases the minimum charge will be applied.

Charging system during the call can by of three different types:

- Real time charging or “per second billing” in which the cost of the call to be calculated based on the exact duration of the call (normally to the nearest second). A call set-up charge, initial charge or minimum charge may be applied, in addition to the duration charge.
- Unit based charging using fixed price unit. The duration of this unit will vary with the destination of the call and time of day. The call duration will always be raised to a multiple of whole units, so the user will nearly always pay for more time than is used. Rarely, a call set-up charge may be applied to this method.
- Fixed period charging uses a variable price, but fixed duration unit. The call is normally charged on a per minute basis, or per 6 seconds. The price for the period will vary with destination and time of day. The charged duration of the call will be raised to a multiple of whole periods. A call set-up charge or initial charge is often implemented in the form of a higher charge for the first minute or period. This initial charge may vary with destination and time of day.

Table G.3 presents information on the call charging systems used by the fixed incumbent operators and the minimum cost of a call for local, long distance, international calls and call to a mobile phone.

Country	Type of call	Initial charges		Charging during the call	
		Types of charges	Nominal value (€ incl. VAT)	Minimum charging unit	Nominal value (€ incl. VAT)
Croatia	Local	Call set-up	0.013	60 seconds	0.038
	Long distance	Call set-up	0.013	60 seconds	0.038
	Fixed-to-mobile	None		15 seconds	0.066
	International	None		15 seconds	0.077
FYROM	Local	None		60 seconds	0.019
	Long distance	None		60 seconds	0.058
	Fixed-to-mobile	None		60 seconds	0.192
	International	None		60 seconds	0.190 (1-10 tariff group)
Turkey	Local	None		60 seconds	0.038 (incl. SCT tax 15%)
	Long distance	None		60 seconds	0.044 (incl. SCT tax 15%)
	Fixed-to-mobile	None		20 seconds	0.063 (incl. SCT tax 15%)
	International	None		60 seconds	0.058 (incl. SCT tax 15%)
Albania	Local	29 seconds (peak) and 48 seconds (off peak)	€0.008 (residential) €0.012 (business)	29 seconds (peak) and 48 seconds (off peak)	€0.008 (residential) €0.012 (business)
	Long distance	6-8 seconds	€0.008 (residential) €0.012 (business)	6-8 seconds	€0.008 (residential) €0.012 (business)
	Fixed-to-mobile	2-3 seconds	€0.008 (residential) €0.012 (business)	2-3 seconds	€0.008 (residential) €0.012 (business)
	International	2-4 seconds (Zone 1) Less than 1 second (Zone 3-5)	€0.008 (residential) €0.012 (business)	2-4 seconds (Zone 1) Less than 1 second (Zone 3-5)	€0.008 (residential) €0.012 (business)
Bosnia & Herzegovina BH Telecom	Local	None		1 second	0.00028
	Long distance	None		1 second	0.00061
	Fixed-to-mobile	None		1 second	0.0012 (own network) 0.0031 (other networks)
	International	None		1 second	Depends on international zone
Bosnia & Herzegovina Telekom Srpske	Local	None		1 second	0.00017
	Long distance	None		1 second	0.00077
	Fixed-to-mobile	None		1 second	0.0013 (own network) 0.0030 (other networks)
	International	None		1 second	Depends on international zone

Country	Type of call	Initial charges		Charging during the call	
		Types of charges	Nominal value (€ incl. VAT)	Minimum charging unit	Nominal value (€ incl. VAT)
Bosnia & Herzegovina HT Mostar	Local	None		1 second	0.00023
	Long distance	None		1 second	0.00077
	Fixed-to-mobile	None		1 second	0.0013 (own network) 0.0031 (other networks)
	International	None		1 second	Depends on international zone
Montenegro	Local	None		60 seconds	0.022
	Long distance	None		60 seconds	0.059
	Fixed-to-mobile	None		60 seconds	0.222
	International	None		60 seconds	Depends on international zone
Serbia	Local	None		1 pulse	0.005
	Long distance	None		1 pulse	0.027
	Fixed-to-mobile	None		1 pulse	0.121
	International	None		1 pulse	0.243
Kosovo	Local	Pulse	0.012	4 minutes	0.046
	Long distance	Pulse	0.012	4 minutes	0.046
	Fixed-to-mobile	Pulse	0.186	15 seconds	0.046
	International	Pulse	0.302	9.2 seconds	0.046

Table G.3 - Call charging systems of fixed incumbent operators

Notes:

Croatia: There are two call charging systems. In one of them, the minimum charging unit is one minute or 60 seconds for calls in the national network, but for calls to mobile networks and international calls the minimum charging unit is 15 seconds. In the second system, the minimum charging unit is one second (although the first 60 seconds of the call are always charged as 1 minute) with the call set-up charge at the amount of 0.08 HRK for all calls in the national network, the same charging unit of one second is also applied to calls to mobile networks and the international calls without the call set-up charge.

Turkey: Charges include VAT and the Special Communication Tax of 15% for fixed network services.

Albania: The charging system is pulse (unit) based. 1 pulse=1 ALL (residential) and 1.5 ALL (Business). Duration in seconds of a pulse depends on the level of tariff and it is calculated as follows: 1 Pulse (seconds)=60/(tariff per minute in ALL) for Residential and 1 Pulse (seconds)=60*1.5/(tariff per minute in ALL) for Business Albtelecom has the obligation to change charging system for *local calls* from unit based charging to per second charging, starting from the second 6-month period under regulation (March 15, 2009). AKEP Decision rejecting the proposal of Albtelecom to carry on with unit based charging and new tariffs has still to be sent to Albtelecom.

Bosnia & Herzegovina: Time-based charging system with pre-second billing interval.

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

Kosovo: International call refers to first tariff group. Fixed to mobile calls from PTK to Ipko are the same for peak and off peak at € 0.16 per minute.

H. Minimum cost of a local call

In the calculation of the minimum charge for calls using per second billing it is assumed that the call is terminated as soon as it starts, making the minimum charge for the call equal to any call set-up or defined minimum call charge. If no such additional charges exist, the minimum charge will be zero.

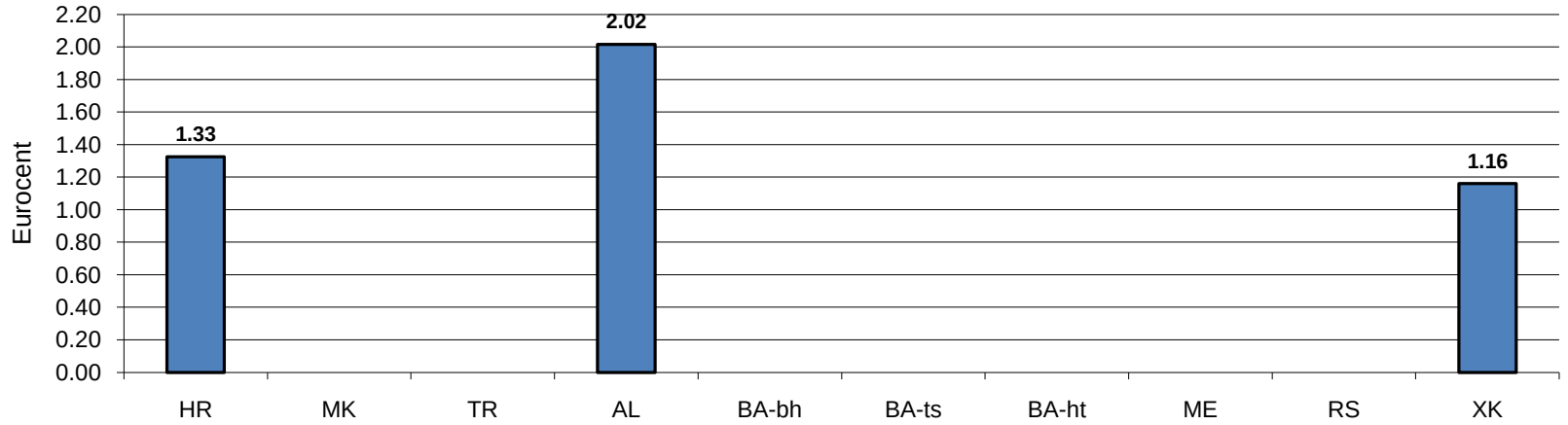


Figure 35 - Minimum cost of a local call in eurocents, including VAT

Notes:
Turkey: The tariff includes a 15% Special Communications Tax

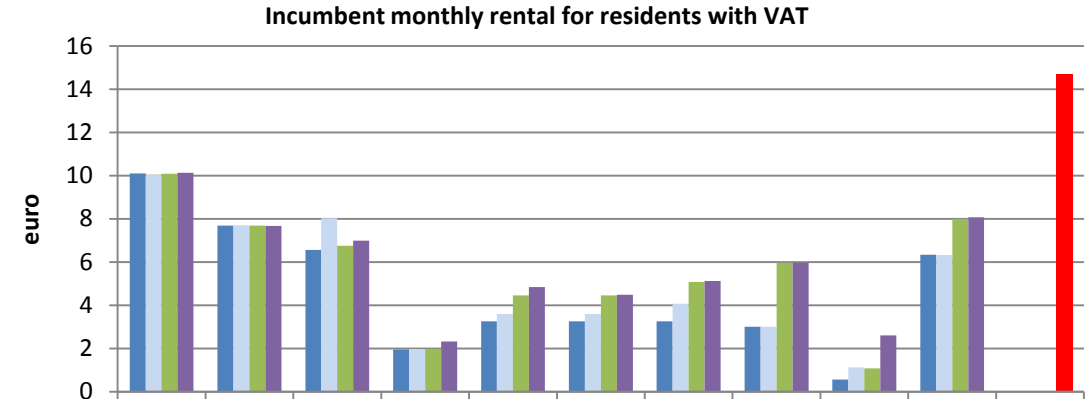
1. Monthly subscription fees for residential and business users

Table H.1 shows the monthly rental prices for PSTN lines in the fixed network for residential subscribers in nominal euro with value added tax included. It shows the prices for the standard tariff plans and, where available, the prices for the low usage tariff plan. For the low usage tariff plan, it shows the basis for its offering (e.g., legal requirement such as a universal service obligation or commercial offer) and any restrictions that might apply (e.g., no possibility to use CS/CPS).

Country	Standard monthly rental € with VAT	Value of call units included		Availability of a low usage package Basis for the offer	Restrictions applicable to low usage package	Low usage monthly rental, € with VAT	Value of call units included	
		Number of units	Nominal value of each unit, €				Number of units	Nominal value of each unit, €
Croatia	10.130	43	0.039	50% discount on Halo Start and Halo Super 60 Low-USO	Only for disabled people and family members of fallen Croatian soldiers	5.070	87	0.031
FYROM	7.668	0	-	Minimal model – tariffs model	None	4.237	0	-
Turkey	6.984	0	-	-	None	-	0	-
Albania	2.326	0	-	None	None	-	0	-
Bosnia & Herzegovina • BH Telecom • Telekom Srpske • HT Mostar	 • 4.846 • 4.487 • 5.115	160 minutes of local calls (peak time)	 • 0.020 • 0.012 • 0.016	Yes special package: families of soldiers died in the war, disabled veterans, blind persons and the other disabled persons	None	 • 2.178 • 2.178 • 2.178	160 minutes of local calls (peak time)	 • 0.020 • 0.012 • 0.016
Montenegro	5.967	100 minutes of local off-peak calls	0.011	Yes (mini package)	For residential users only	3.042	0	0
Serbia	2.59	0	-	None	None	-	-	-
Kosovo	8.074	250	0.046	Yes	None	3.47	-	-

Table H.1 - Residential monthly line rental charges of fixed incumbent

Notes:
Turkey: Charges include the Special Communication Tax.
Montenegro: For party lines monthly rentals are: 3.82 EUR for standard offer and 1.95 EUR for MINI package. Included call units are only for residential subscribers, not for business subscribers. Source: *Pricelist of T-Com Montenegro, 09.12.2008.*



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK	EU 27
Jul-06	10.10	7.69	6.56	1.95	3.26	3.26	3.26	3.00	0.56	6.33	
Jul-07	10.02	7.70	8.03	1.96	3.59	3.59	4.07	3.00	1.12	6.32	
Apr-08	10.09	7.69	6.75	1.98	4.45	4.46	5.08	5.97	1.08	7.99	
Jan-09	10.13	7.67	6.98	2.33	4.85	4.49	5.11	5.97	2.60	8.07	14.70

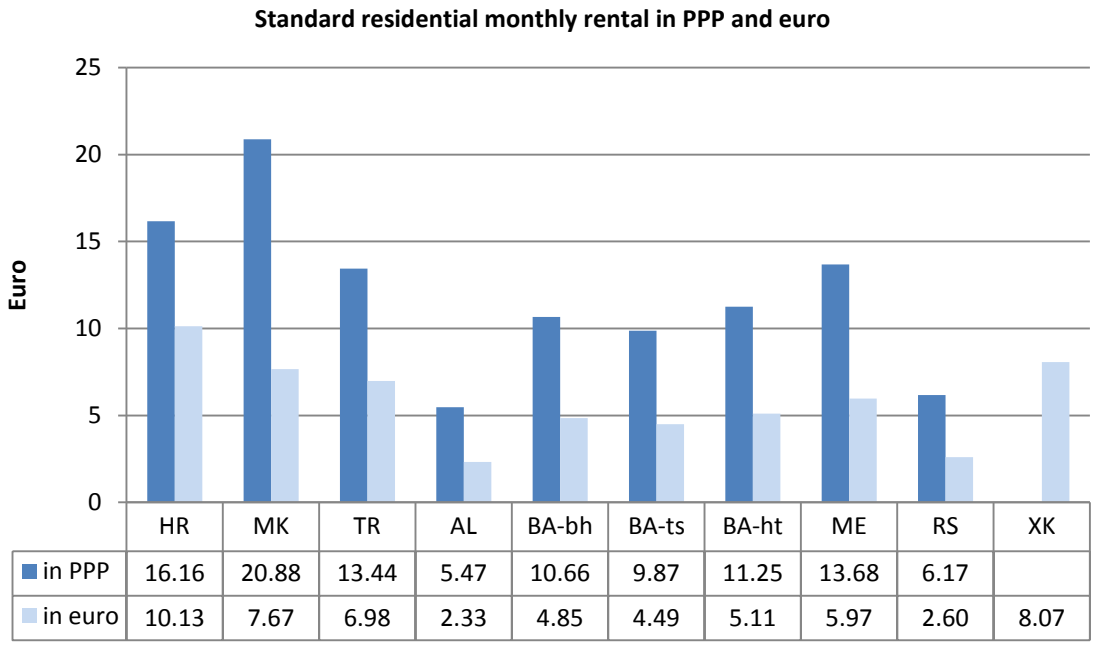
Figure 36 - Standard residential monthly rental (incl. VAT)

Notes:
The EU-27 average is taken from the 14th Implementation Report of the European Commission, March 2009.
Turkey: The charges include the Special Communications Tax.

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 indexes that reflect the differences in relative price levels.

Taking these price levels into account means that the prices for consumers in this region appear higher than what is expressed through the nominal exchange rate, except for Kosovo where no PPP exchange rates are available yet.

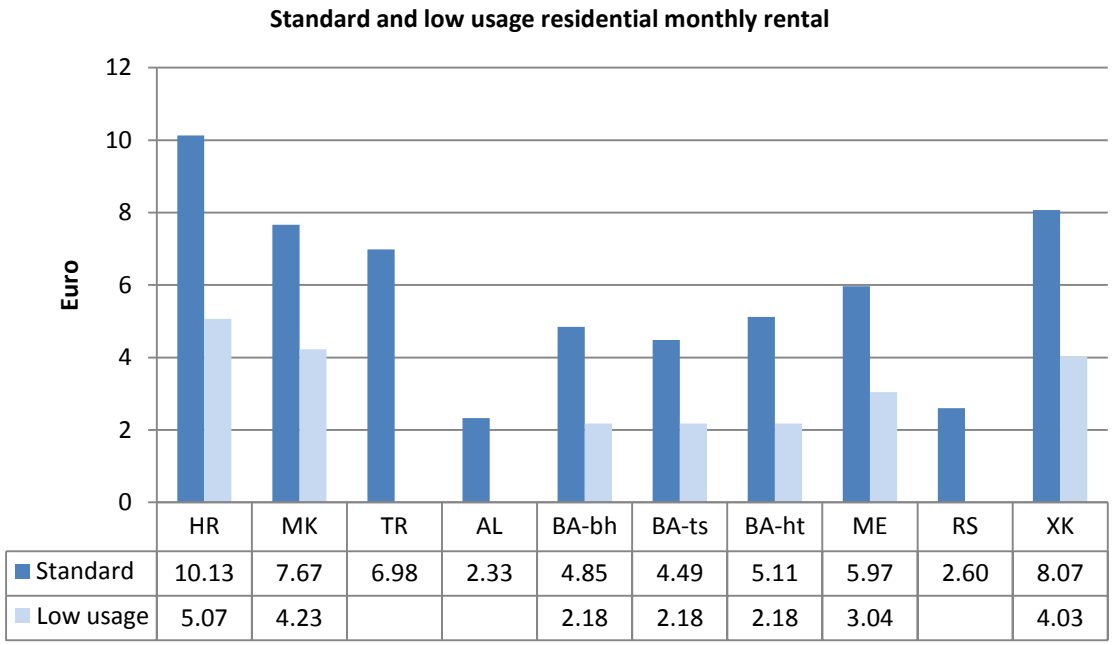
Figure 37 below shows the differences in monthly rental when presented in nominal euro and in €/PPP values, except for Kosovo where no PPP exchange rates are available yet.



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
in PPP	16.16	20.88	13.44	5.47	10.66	9.87	11.25	13.68	6.17	
in euro	10.13	7.67	6.98	2.33	4.85	4.49	5.11	5.97	2.60	8.07

Figure 37 - Standard residential monthly rental (incl. VAT) expressed in PPP and nominal euro

Figure 38 below presents the low usage options in comparison with the standard monthly rental. Turkey, Albania and Serbia do not have special low usage options, but their standard monthly rates are anyway lower than the low usage alternatives of the other countries.



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
Standard	10.13	7.67	6.98	2.33	4.85	4.49	5.11	5.97	2.60	8.07
Low usage	5.07	4.23			2.18	2.18	2.18	3.04		4.03

Figure 38 - Standard and low usage residential monthly rental including VAT

Notes:
Turkey: The charges include the Special Communications Tax

Table H.2 shows the monthly rental prices for PSTN lines in the fixed network for business subscribers in domestic currency and in nominal Euro without value added tax.

Country	Standard monthly rental €	Value of call units included	
		Number of units	Nominal value of each unit €
Croatia	9.69	0	0
FYROM	11.40	0	0
Turkey	5.25	0	0
Albania	8.56	0	0
Bosnia & Herzegovina: • BH Telecom • Telekom Srpske • HT Mostar	 • 8.36 • 8.36 • 8.36	 • 160 minutes of local calls in peak time • 160 minutes of local calls in peak time • 160 minutes of local calls in peak time	 • 0.02 • 0.01 • 0.01
Montenegro	5.10	0	0
Serbia	2. 20	0	0
Kosovo	21.74	2,500	0.04

Table H.2 - Business monthly line rental charges of the fixed incumbent (excluding VAT)

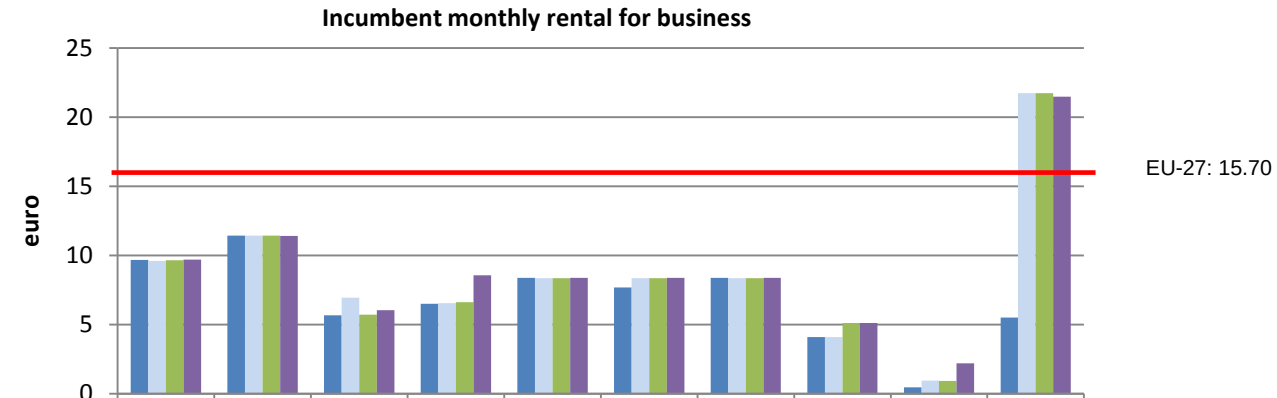
Notes:

Turkey: Includes Special Communications tax

Serbia: If the subscriber spent less than 150 pulses per month he pays only monthly rental price of €2.20.

Montenegro: For double party lines monthly rental is €3.82. After rebalancing of tariffs, all prices for residential and business users are the same.

Figure 39 below shows the monthly line rental charges for business subscribers and presents the corresponding information from July 2007 for comparison. In Kosovo, monthly rental for business users remains considerably high in region, also much above the EU 27 average. Serbia and Albania have had significant price increases since the previous year. There are no major changes in the other countries.



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
Jul-06	9.66	11.44	5.67	6.49	8.36	7.67	8.36	4.09	0.45	5.50
Jul-07	9.59	11.44	6.94	6.55	8.36	8.36	8.36	4.09	0.95	21.74
Apr-08	9.64	11.44	5.72	6.61	8.36	8.36	8.36	5.10	0.92	21.74
Jan-09	9.69	11.40	6.04	8.56	8.36	8.36	8.36	5.10	2.20	21.47

Figure 39 - Monthly rental business users

Notes:
Turkey: Includes Special Communications Tax
The EU-27 average is taken from the 14th Implementation Report of the European Commission, March 2009.

2. One-off connection charges

Table H.3 shows the initial costs for the installation and connection of residential and business subscriptions. The installation costs represent the cost of a new installation in a location that has not been connected before. The connection cost is the cost for the connection of an existing subscriber line to a new subscriber, for example, when a new family takes over an apartment where the previous occupant was already connected.

Some operators have special reconnection tariffs that apply after a subscriber has been disconnected for failure to pay accounts. These are not included in the table.

Country	Residential (including VAT)		Business (excluding VAT)	
	New line connection charge	Reconnection charge (takeover)	New line connection charge	Reconnection charge (takeover)
Croatia	84.45	10.13	69.23	8.31
FYROM	23.83	€7.67 (monthly rental)	20.19	€11.40 (monthly rental)
Turkey	3.13	3.13	2.65	2.65
Albania	116.32	116.32	96.93	96.93
Bosnia & Herzegovina:				
• BH Telecom	35.89	35.89	30.68	30.68
• Telekom Srpske	53.84	53.84	46.02	46.02
• HT Mostar	53.84	53.84	46.02	46.02
Montenegro	64.99	12.50	55.55	10.68
Serbia	66.59	4.96	112.87	4.20
Kosovo	10.00	2.02	8.62	1.74

Table H.3 - One-off connection charges of the fixed incumbent

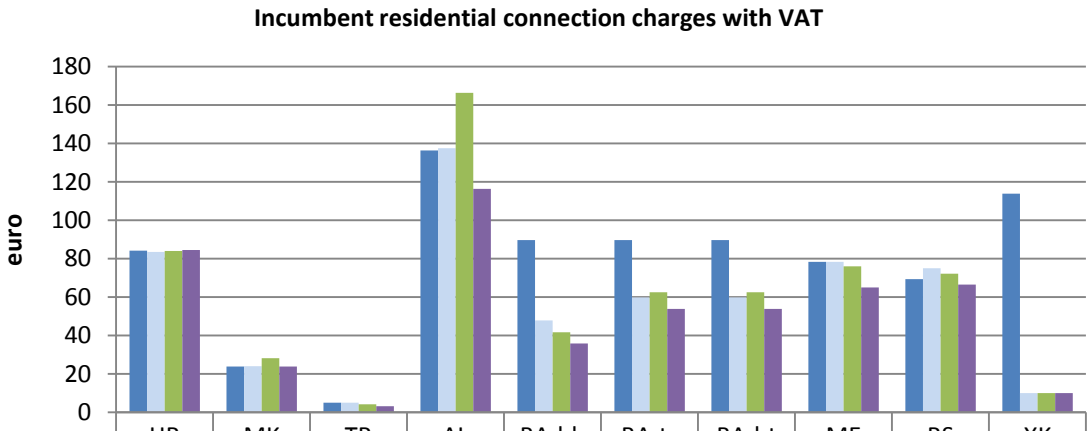
Notes:

Montenegro: Prices exclude VAT. There is a connection tax for a new line or for the reconnection of an old line of €10.68, included in the price of €55.55. After rebalancing the tariffs, prices for residential and business users have been the same. (Source: T-Com Montenegro, March 13, 2008 www.t-com-cg.com).

Serbia: There is an additional payment for the installation of TT cable, if this is required. The costs depend on the length of the cable (up to 150 metres it is RSD 3,500; >150 metres it is RSD 3,500 plus 63.27 per metre for aerial cable or 129.17 per metre for underground cable).

Turkey: Includes Special Communications Tax.

Figure 40 shows the trends in connection charges for residential customers since 2006. Some of these have dropped quite dramatically, notably in Kosovo and Bosnia & Herzegovina. The level in Albania remains considerably above the monitored countries' average, but has seen a 43% decrease from the previous year. Connection charges in Croatia are not as expensive, but they are still unchanged and higher than in the other countries.



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
Jul-06	84.20	23.91	5.04	136.29	89.72	89.72	89.72	78.39	69.41	113.85
Jul-07	83.53	23.92	5.02	137.48	47.85	59.81	59.81	78.39	75.00	10.01
Jan-08	84.05	28.21	4.22	166.45	41.72	62.57	62.57	76.04	72.25	10.01
Jan-09	84.45	23.83	3.13	116.32	35.89	53.84	53.84	64.99	66.59	10.00

Figure 40 - Incumbent operator connection charges for residential customers (2006-2009)

Notes:
Turkey: Includes Special Communications Tax

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

Country	Largest alternative operator	Technologies used
Croatia	OT - Optima Telekom d.o.o.	VoIP
FYROM	On.Net d.o.o. Skopje	LLU and Wi-Fi
Turkey	No alternative operator	-
Albania	H-Communication	PSTN
Bosnia & Herzegovina	T3 d.o.o. Sarajevo	PSTN
Montenegro	m:tel	WiMAX

Country	Largest alternative operator	Technologies used
Serbia	No alternative operator	-
Kosovo	Ipko	VoIP

Table H.4 - Alternative operators chosen for comparison of retail tariffs

Notes:
Turkey: Local calls are currently provided only by the incumbent.
Albania: H-Communication is the largest alternative fixed operator, in the rural areas of Tirana and Durres.

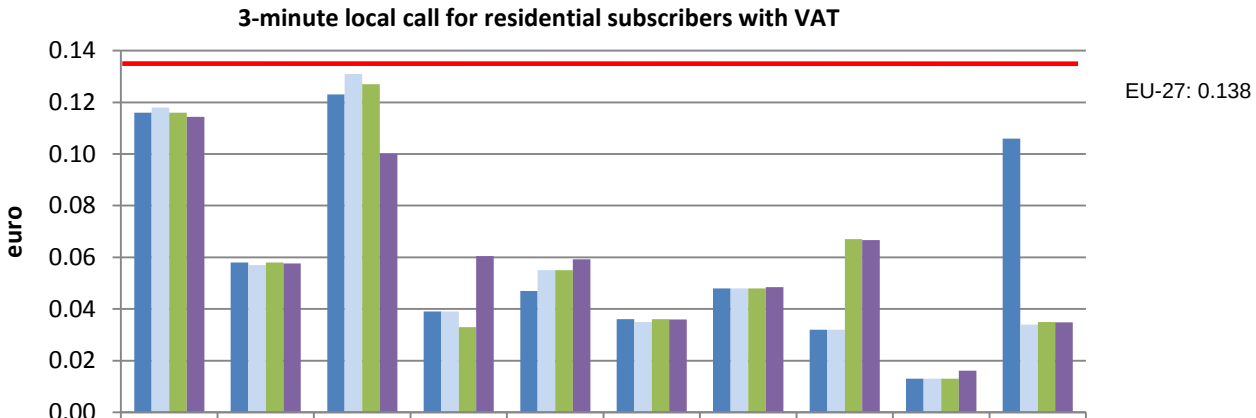
Table H.5 below presents the local tariffs by the incumbent operator and an alternative operator for 3 minute calls and 10 minute calls. All tariffs are in euro with VAT included.

Country		Incumbent		Alternative operator	
		3 minutes, €	10 minutes, €	3 minutes, €	10 minutes, €
Croatia		0.11	0.381	0.12	0.375
FYROM		0.06	0.192	0.06	0.190
Turkey		0.10	0.376	-	-
Albania		0.06	0.202	0.14	0.465
Bosnia & Herzegovina	BH Telecom	0.06	0.197	0.11	0.362
	Telekom Srpske	0.04	0.120	0.15	0.508
	HT Mostar	0.05	0.162	0.15	0.508
Montenegro		0.07	0.222	0.12	0.400
Serbia		0.02	0.054	-	-
Kosovo		0.03	0.116	0.09	0.290

Table H.5 - Local calls for residential customers (including VAT)

Notes:
Turkey: Includes Special Communications Tax

Figure 41 shows the cost of a three-minute local call in Eurocents on the network of the incumbent operator, including VAT for residential consumers. There is considerable variation in the prices, with Croatia and Turkey more expensive, while Serbia is the cheapest. The EU-27 average is indicated by the red line.

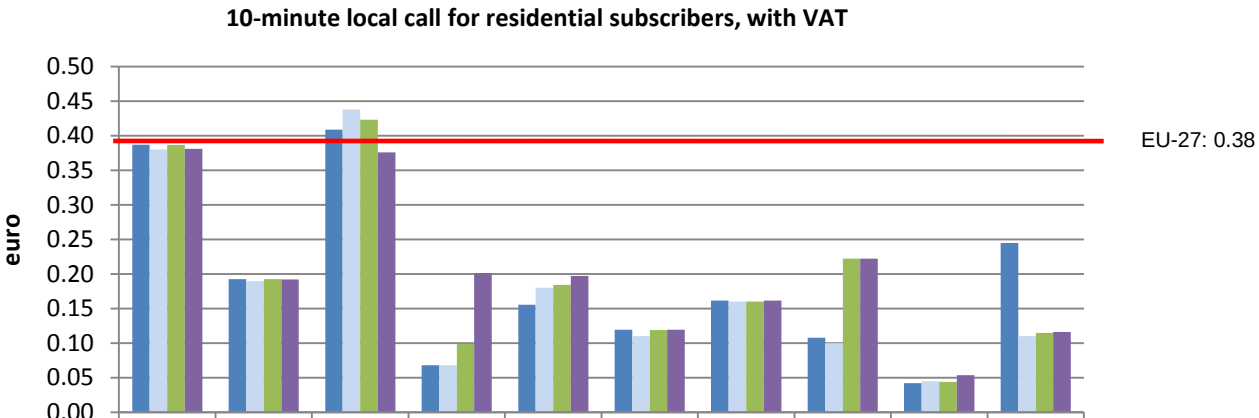


	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
Jul-06	0.116	0.058	0.123	0.039	0.047	0.036	0.048	0.032	0.013	0.106
Jul-07	0.118	0.057	0.131	0.039	0.055	0.035	0.048	0.032	0.013	0.034
Apr-08	0.116	0.058	0.127	0.033	0.055	0.036	0.048	0.067	0.013	0.035
Jan-09	0.114	0.058	0.100	0.060	0.059	0.036	0.048	0.067	0.016	0.035

Figure 41 - Cost of a three minute local call (incumbent) in nominal value

Notes:
Turkey: Includes Special Communications Tax of 15%
EU-27: Source: 14th Implementation Report of the European Commission. March 2009.

Figure 42 shows the equivalent data for a ten-minute call with very similar patterns.



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
Jul-06	0.387	0.193	0.409	0.068	0.156	0.120	0.162	0.108	0.042	0.245
Jul-07	0.380	0.190	0.438	0.068	0.180	0.110	0.160	0.100	0.045	0.110
Apr-08	0.387	0.193	0.423	0.099	0.184	0.119	0.160	0.222	0.044	0.115
Jan-09	0.381	0.192	0.376	0.202	0.197	0.120	0.162	0.222	0.054	0.116

Figure 42 - Cost of a ten minute local call (incumbent) in nominal value

Notes:
Turkey: Includes Special Communications Tax
EU-27: Source: 14th Implementation Report of the European Commission. March 2009.

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

Table H.6 below presents the long distance tariffs by the incumbent operator and an alternative operator for 3 minute calls and 10 minute calls. All tariffs are in euro with VAT included.

It should be noted that in the past the alternative operators in Albania were regional operators that could not compete directly with the incumbent operator. With the introduction of the new authorisations regime, in 2008, all alternative operators can now compete with the incumbent on a national level (see Table C.3 for more details). In the countries where price information is missing, there is no competitive fixed network alternative.

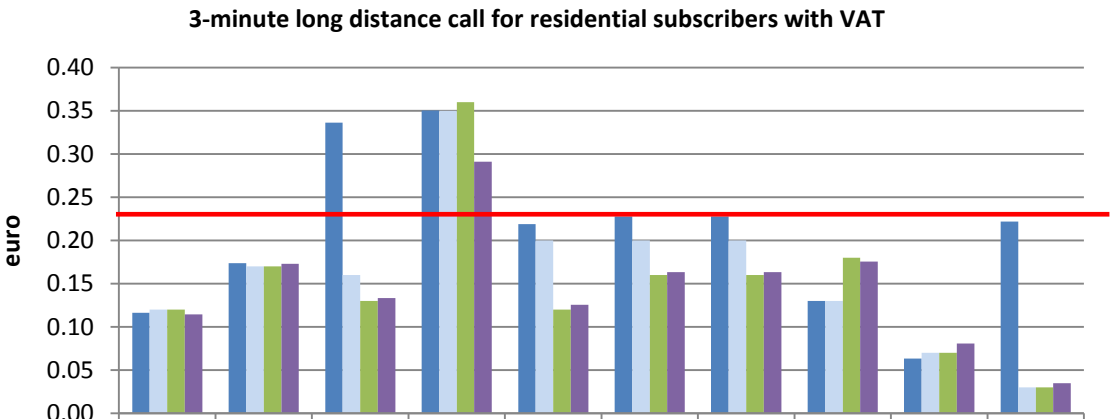
Long distance prices offered by alternative operators are significantly lower only in FYROM, and to a lesser extent, in Turkey and Montenegro.

Country		Incumbent		Alternative operator	
		3 minutes, €	10 minutes, €	3 minutes, €	10 minutes, €
Croatia		0.11	0.38	0.12	0.37
FYROM		0.17	0.58	0.06	0.19
Turkey		0.13	0.44	0.11	0.37
Albania		0.29	0.97	0.58	1.95
Bosnia & Herzegovina	BH Telecom	0.13	0.42	0.15	0.51
	Telekom Srpske	0.16	0.54	0.15	0.51
	HT Mostar	0.16	0.54	0.15	0.51
Montenegro		0.18	0.59	0.12	0.40
Serbia		0.08	0.27	-	-
Kosovo		0.03	0.12	0.09	0.20

Table H.6 - Long-distance calls for residential customers (including VAT)

Notes:
Turkey: Includes Special Communications Tax

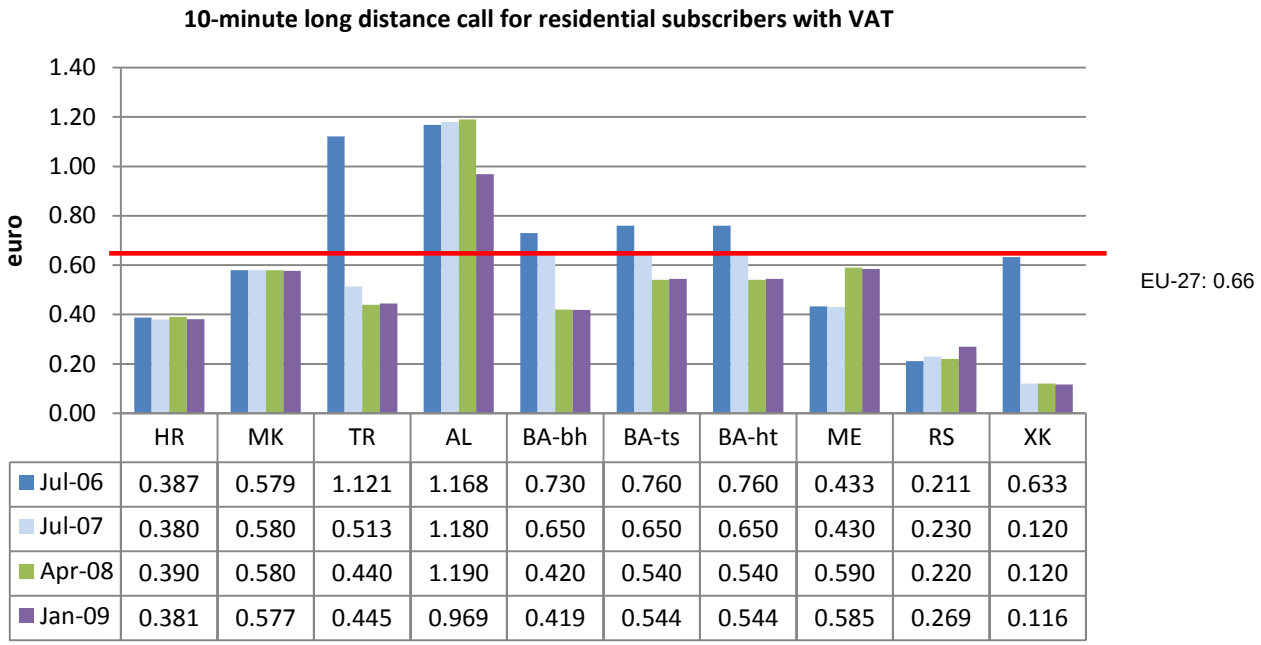
Figure 43 below presents the price developments for a 3-minute residential long distance call from July 2006. Figure 44 presents the corresponding information for a 10-minute call. A dramatic decrease is observed in both cases in Turkey, in Kosovo, and in Bosnia & Herzegovina, as a result of a tariff rebalancing policy pursued during that period. In all of the other countries, long distance prices are stable (Croatia, FYROM) or show an increase, as in the case of Montenegro and Serbia. Albania has the highest rates among the countries monitored, also much higher than the EU-27 average.



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
Jul-06	0.116	0.174	0.336	0.350	0.219	0.228	0.228	0.130	0.063	0.222
Jul-07	0.120	0.170	0.160	0.350	0.200	0.200	0.200	0.130	0.070	0.030
Apr-08	0.120	0.170	0.130	0.360	0.120	0.160	0.160	0.180	0.070	0.030
Jan-09	0.114	0.173	0.133	0.291	0.126	0.163	0.163	0.176	0.081	0.035

Figure 43 - Residential long distance charges for 3 minute calls (incumbent)

Notes:
Turkey: Includes Special Communications Tax
The EU-27 average is taken from the 14th Implementation Report of the European Commission, March 2009.



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
Jul-06	0.387	0.579	1.121	1.168	0.730	0.760	0.760	0.433	0.211	0.633
Jul-07	0.380	0.580	0.513	1.180	0.650	0.650	0.650	0.430	0.230	0.120
Apr-08	0.390	0.580	0.440	1.190	0.420	0.540	0.540	0.590	0.220	0.120
Jan-09	0.381	0.577	0.445	0.969	0.419	0.544	0.544	0.585	0.269	0.116

Figure 44 - Residential long distance charges for 10-minute call (incumbent)

Notes:
Turkey: Includes Special Communications Tax
The EU-27 average is taken from the 14th Implementation Report of the European Commission, March 2009.

Table H.7 below presents the corresponding information on long distance calls for business subscribers. These prices are without VAT.

Country	Incumbent		Alternative operator	
	3 minutes, €	10 minutes, €	3 minutes, €	10 minutes, €
Croatia	0.09	0.31	0.10	0.31
FYROM	0.15	0.49	0.04	0.15
Turkey	0.12	0.38	0.10	0.32
Albania	0.36	1.21	0.49	1.62

Country		Incumbent		Alternative operator	
		3 minutes, €	10 minutes, €	3 minutes, €	10 minutes, €
Bosnia & Herzegovina	BH Telecom	0.11	0.36	0.13	0.43
	Telekom Srpske	0.14	0.47	-	-
	HT Mostar	0.14	0.47	-	-
Montenegro		0.15	0.50	0.10	0.34
Serbia		0.08	0.28	-	-
Kosovo		0.03	0.10	0.08	0.25

Table H.7 - Long-distance calls for business customers (excluding VAT)

Notes:
Turkey: Includes Special Communications Tax

5. Fixed-to-mobile tariffs of the incumbent and an alternative operator

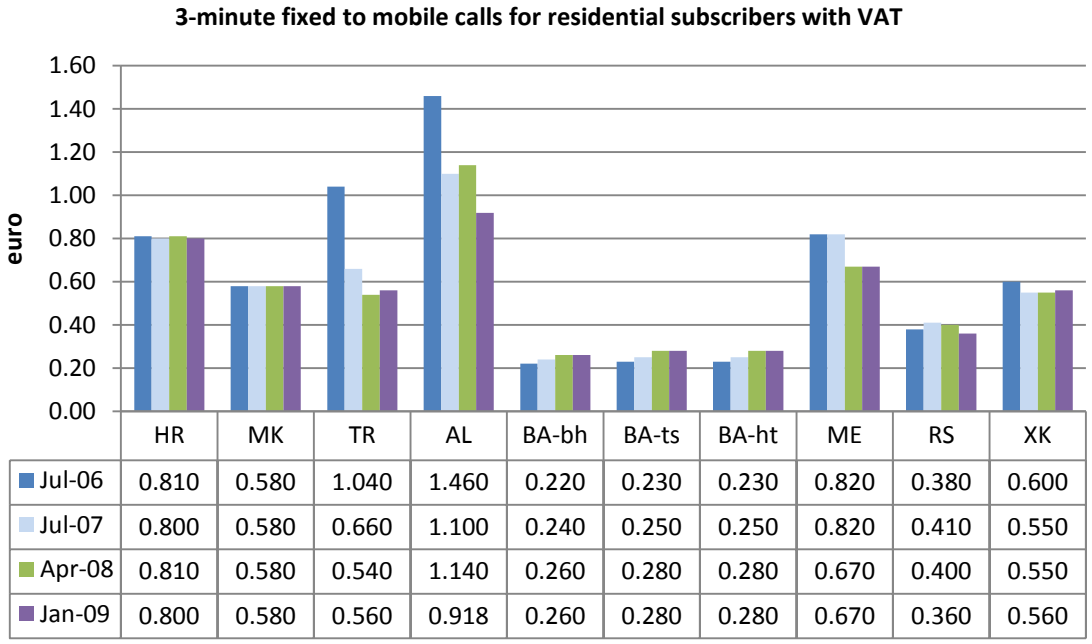
Table H.8 below presents the prices from the fixed network of the incumbent operator and for an alternative operator to a mobile network.

Country		Incumbent		Alternative operator	
		3 minutes, €	10 minutes, €	3 minutes, €	10 minutes, €
Croatia		0.08	2.65	0.69	2.26
FYROM		0.58	1.92	0.40	1.35
Turkey		0.56	1.88	0.40	1.33
Albania		0.92	3.06	1.73	5.77
Bosnia & Herzegovina	BH Telecom	0.26	0.87	0.57	1.91
	Telekom Srpske	0.28	0.93	0.57	1.91
	HT Mostar	0.28	0.93	0.60	1.97
Montenegro		0.67	2.22	0.57	1.89
Serbia		0.36	1.21	-	-
Kosovo		0.56	1.86	0.52	1.74

Table H.8 - Fixed-to-mobile calls for residential customers (including VAT)

Notes:
Turkey: Includes Special Communications Tax 15%

Figure 45 below presents the price developments for fixed to mobile calls for the incumbent operator since July 2006. The lowest rates are in Bosnia & Herzegovina, although with slightly increasing trends. Turkey shows the most dramatic decrease since 2006. Albania and Croatia have the highest fixed-to-mobile rates among the countries monitored.



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
Jul-06	0.810	0.580	1.040	1.460	0.220	0.230	0.230	0.820	0.380	0.600
Jul-07	0.800	0.580	0.660	1.100	0.240	0.250	0.250	0.820	0.410	0.550
Apr-08	0.810	0.580	0.540	1.140	0.260	0.280	0.280	0.670	0.400	0.550
Jan-09	0.800	0.580	0.560	0.918	0.260	0.280	0.280	0.670	0.360	0.560

Figure 45 - Residential charges for 3 minute fixed to mobile calls (incumbent)

Notes:
Turkey: Includes Special Communications Tax.
Bosnia & Herzegovina: The charges shown above apply for calls to incumbents' own mobile networks. For calls to other mobile networks, charges are two times higher.

Table H.9 presents the tariffs for fixed to mobile calls for business customers. The table includes tariffs from an alternative operator when available.

Country	Incumbent		Alternative operator	
	3 minutes, €	10 minutes, €	3 minutes, €	10 minutes, €
Croatia	0.65	2.17	0.56	1.86
FYROM	0.49	1.63	0.34	1.14
Turkey	0.49	1.62	0.34	1.15

Country		Incumbent		Alternative operator	
		3 minutes, €	10 minutes, €	3 minutes, €	10 minutes, €
Albania		1.15	3.83	1.44	4.81
Bosnia & Herzegovina	BH Telecom	0.22	0.74	0.49	1.64
	Telekom Srpske	0.24	0.79	0.49	1.64
	HT Mostar	0.24	0.79	0.51	1.69
Montenegro		0.57	1.90	0.48	1.62
Serbia		0.38	1.28	-	-
Kosovo		0.48	1.60	0.45	1.50

Table H.9 - Fixed-to-mobile calls for business customers of the incumbent operator (excluding VAT)

Notes:
Turkey: Includes Special Communications Tax
Serbia: No alternative operators

6. International tariffs of the incumbent and an alternative operator

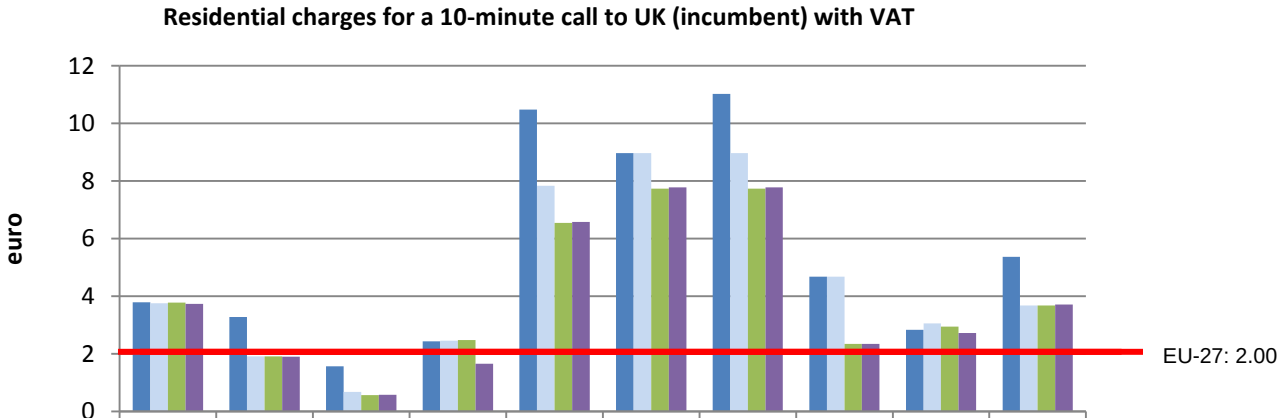
Table H.10 presents the long distance call tariffs to the UK for a ten-minute call from residential as well as business subscribers. The main difference between these tariffs is due to the fact that the residential tariffs include VAT. Tariffs are shown both for the incumbent operator and a major alternative operator.

Country		Residential		Business	
		Incumbent, €	Alternative operator, €	Incumbent, €	Alternative operator, €
Croatia		3.73	2.99	3.06	2.45
FYROM		1.90	1.71	1.61	1.15
Turkey		0.58	0.37	0.50	0.32
Albania		1.66	6.11	2.08	5.09
Bosnia & Herzegovina	BH Telecom	6.58	3.29	5.62	2.81
	Telekom Srpske	7.78	-	6.65	-
	HT Mostar	7.78	-	6.65	-
Montenegro		2.34	1.50	2.00	1.28
Serbia		2.72	-	2.86	-
Kosovo		3.71	1.16	3.20	1.00

Table H.10 - Ten-minute call to the UK

Notes:
Turkey: Includes Special Communications Tax
Serbia: no alternative operators

Figure 46 below shows the price developments since July 2006 for the international tariffs of the incumbent operator for residential users.

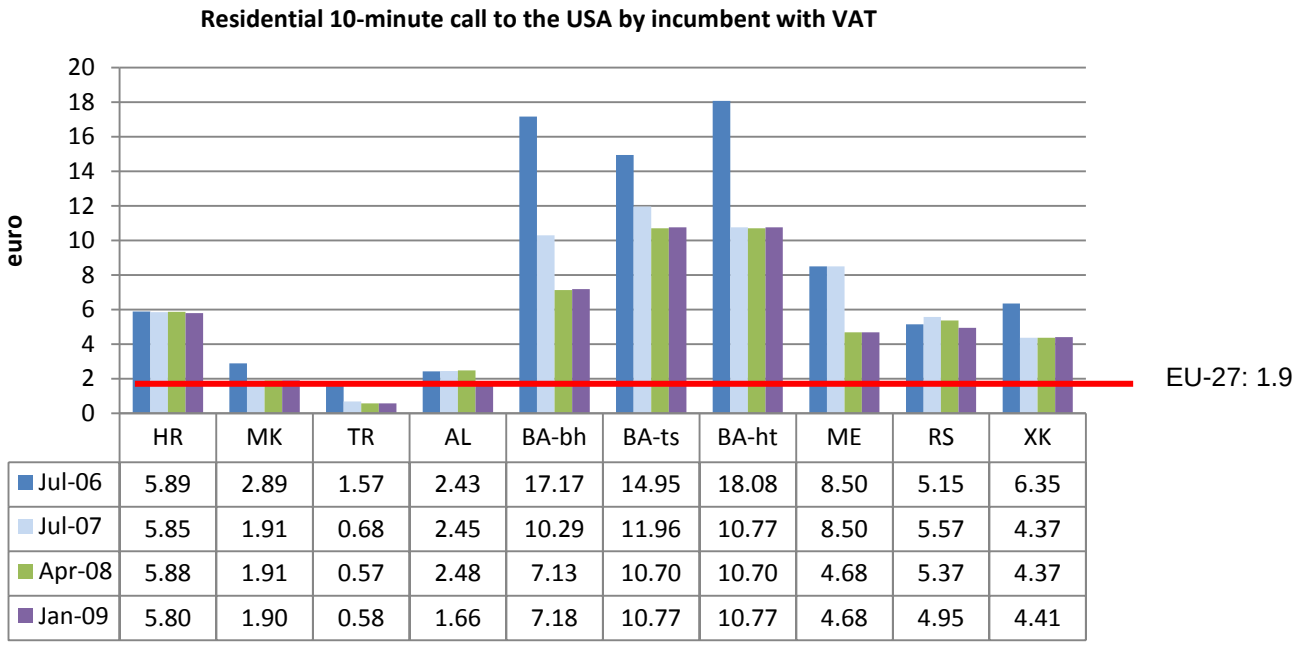


	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
Jul-06	3.79	3.28	1.57	2.43	10.48	8.97	11.03	4.68	2.83	5.37
Jul-07	3.76	1.91	0.68	2.45	7.84	8.97	8.97	4.68	3.06	3.68
Apr-08	3.78	1.91	0.57	2.48	6.54	7.73	7.73	2.34	2.95	3.68
Jan-09	3.73	1.9	0.58	1.66	6.58	7.78	7.78	2.34	2.72	3.71

Figure 46 - 10-minute call to UK by incumbent operator for residential users

Notes:
Turkey: Includes Special Communications Tax
The EU-27 average is the tariff to a distant EU country taken from the 14th Implementation Report of the European Commission, March 2009.

Table H.11 and Figure 47 provide the corresponding tariff information for long distance calls to the United States.



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
Jul-06	5.89	2.89	1.57	2.43	17.17	14.95	18.08	8.50	5.15	6.35
Jul-07	5.85	1.91	0.68	2.45	10.29	11.96	10.77	8.50	5.57	4.37
Apr-08	5.88	1.91	0.57	2.48	7.13	10.70	10.70	4.68	5.37	4.37
Jan-09	5.80	1.90	0.58	1.66	7.18	10.77	10.77	4.68	4.95	4.41

Figure 47 - 10-minute call to USA by incumbent operator for residential users

Country		Residential		Business	
		Incumbent, €	Alternative operator, €	Incumbent, €	Alternative operator, €
Croatia		5.80	4.65	4.76	3.81
FYROM		1.90	1.71	1.61	1.15
Turkey		0.58	0.37	0.50	0.32
Albania		1.66	6.11	2.08	5.09
Bosnia & Herzegovina	BH Telecom	7.18	3.89	6.14	3.32
	Telekom Srpske	10.77	-	9.20	-
	HT Mostar	10.77	-	9.20	-
Montenegro		4.68	4.00	4.00	3.42

Country	Residential		Business	
	Incumbent, €	Alternative operator, €	Incumbent, €	Alternative operator, €
Serbia	4.95	-	5.20	-
Kosovo	4.41	N/A	3.80	N/A

Table H.11 - Ten-minute call to the USA

Notes:
Turkey: Includes Special Communications Tax
Kosovo: no information available on alternative operator price for 10-minute call to the USA
The EU-27 average is taken from the 14th Implementation Report of the European Commission, March 2009.

I. Mobile retail tariffs

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

In order to be able to make comparisons between its members states the OECD constructed a set of mobile tariff "baskets" building on its work in fixed telephony baskets. These baskets are updated to reflect changing usage patterns. The current baskets are referred to as the 2006 version, while the previous baskets – as the 2002 version. This report uses the 2006 baskets for the first time for the monitored countries. This means that basket prices can be directly compared with the European Union results which also use the 2006 baskets. However, as the previous monitoring reports used the 2002 basket, the exact comparisons with the previous results cannot be made. The European Commission adopted the OECD 2006 baskets in its 14th Implementation Report, reporting a wider range of data for operators and different tariff packages. It should be noted that the EC uses monthly and not annual results.

The table below shows the structure and composition of the 2006 mobile baskets. While the basket is the annual cost, the numbers of SMS and calls are for each month. The mobile baskets are defined as "low user"- a definition that includes 30 outgoing calls per month plus 33 SMS messages, "medium user"- 65 outgoing calls plus 50 SMS, and "high user"- 140 calls and 55 SMS.

	Calls	SMS	MMS	Fixed calls		Mobile calls		Voicemail	Time of day		
				Local	National	On-net	Off-net		Peak	Off-peak	Weekend
Low user	30	33	0.67	15%	7%	48%	22%	8%	48%	25%	27%
Medium user	65	50	0.67	14%	7%	48%	24%	7%	50%	24%	26%
High user	140	55	1.00	13%	7%	47%	26%	7%	60%	19%	21%

Table I.1 - Composition of OECD 2006 mobile baskets

While some critics have argued for the creation of a "Balkan basket" or set of baskets that might better reflect local usage patterns, this would make any comparisons with the EU or with OECD impossible. Indeed, it would be likely to make historical comparisons very difficult, unless the old results could be recalculated.

Country	Operator	Low-user	Medium-user	High-user
		€	€	€
Croatia	T-Mobile	11.8	18.1	28.0
	VIPnet	14.5	23.1	31.0
FYROM	T-mobile	7.4	16.3	32.0
	Cosmofon	9.6	14.8	29.7
Turkey		10.4	33.7	68.3
Albania	AMC	15.1	29.6	50.8
	Vodafone	17.9	31.7	54.7
Bosnia & Herzegovina	BH Telecom	9.1	30.0	59.9
	Telekom Srpske	12.2	24.1	48.1
	HT Mostar (HT Eronet)	17.2	27.7	52.6
Montenegro	M:Tel	6.4	13.2	28.3
	ProMonte	8.2	18.0	33.7
	T-Mobile	8.4	15.6	30.7
Serbia	m:ts	5.8	13.1	16.7
Kosovo	PTK-Vala900	8.0	22.3	35.3
	IPKO	6.7	24.4	32.8

Table I.2 - OECD 2006 mobile tariff baskets, January 2009

The table below shows the results for each usage basket, including both postpaid and prepaid offers.

Country	Operator	Low-user	Medium-user	High-user
		€	€	€
Croatia	T-Mobile	11.8	18.1	28.0
	VIPnet	14.5	23.1	31.0
FYROM	T-mobile	7.4	16.3	32.0
	Cosmofon	9.6	14.8	29.7
Turkey		10.4	33.7	68.3
Albania	AMC	15.1	29.6	50.8
	Vodafone	17.9	31.7	54.7
Bosnia & Herzegovina	BH Telecom	9.1	30.0	59.9
	Telekom Srpske	12.2	24.1	48.1
	HT Mostar (HT Eronet)	17.2	27.7	52.6
Montenegro	M:Tel	6.4	13.2	28.3
	ProMonte	8.2	18.0	33.7
	T-Mobile	8.4	15.6	30.7
Serbia	m:ts	5.8	13.1	16.7
Kosovo	PTK-Vala900	8.0	22.3	35.3
	IPKO	6.7	24.4	32.8

Table I.2 - OECD 2006 mobile tariff baskets, January 2009

Notes:
Turkey: Includes Special Communications Tax 25%.

The three following figures show the prices in the low, medium and high user baskets in 2009 in the monitored countries. For comparison, the EU 27 average values from the 14th Implementation Report of the European Commission have been used.

The regional results for low users show that most countries have offerings that are cheaper than the simple average of EU operators (€12.48 per month). In Albania mobile prices remain high, in spite of the reductions implemented in 2008.

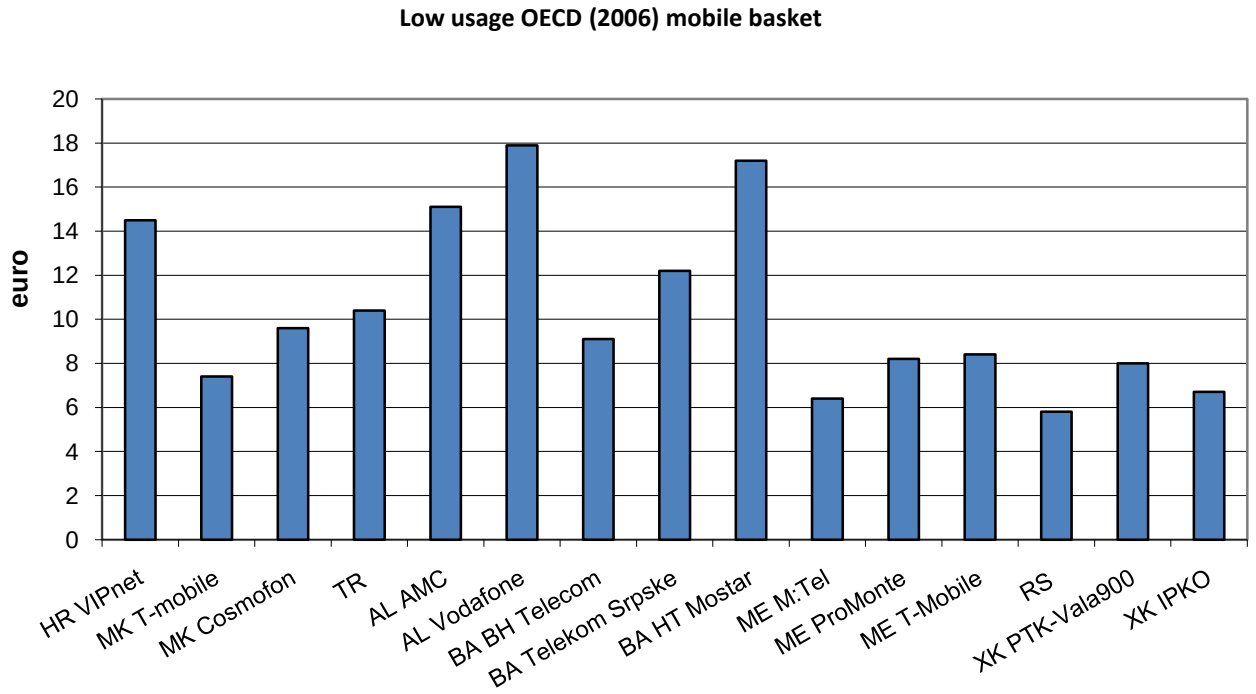


Figure 48 - Low usage OECD mobile basket

For medium users, the average price in the EU was €21.37. Average prices in Turkey, Albania and Bosnia & Herzegovina remain significantly higher, while in Croatia, FYROM, Montenegro and Serbia average prices tend to be lower than the EU average.

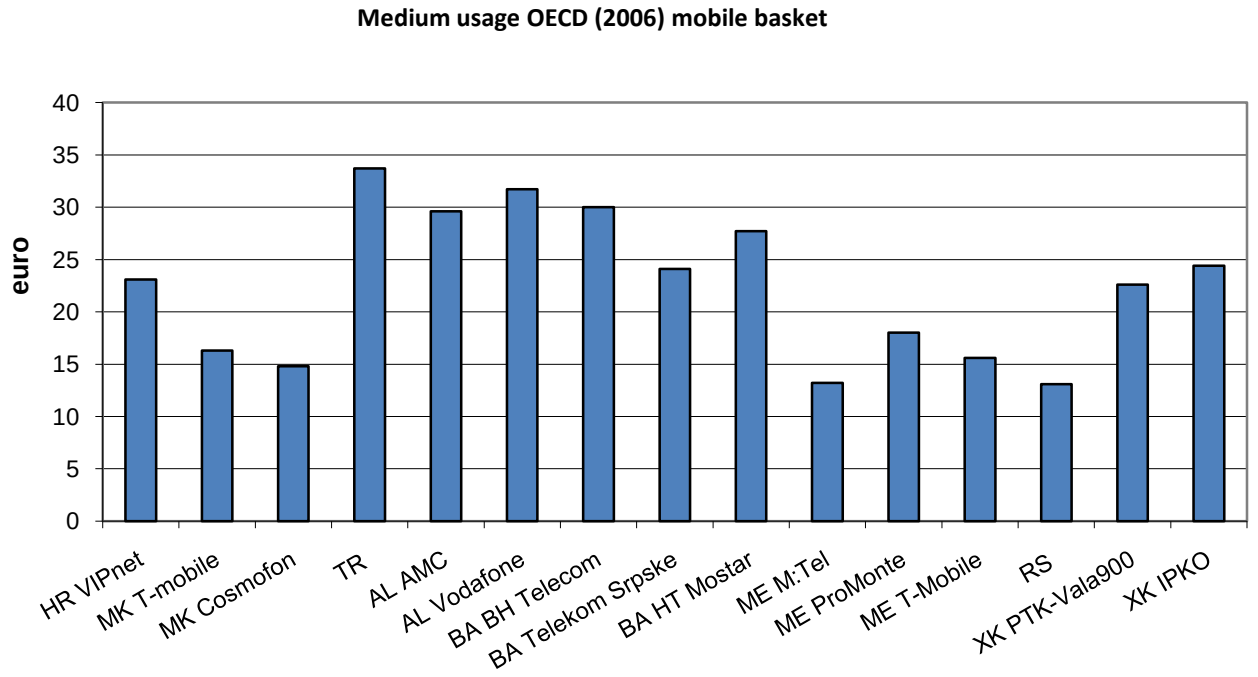


Figure 49 - Medium usage mobile basket

For high users, Turkey Bosnia & Herzegovina and Albania are significantly above the EU average of €35.28, while other countries, notably Croatia, Montenegro and Serbia offer lower prices.

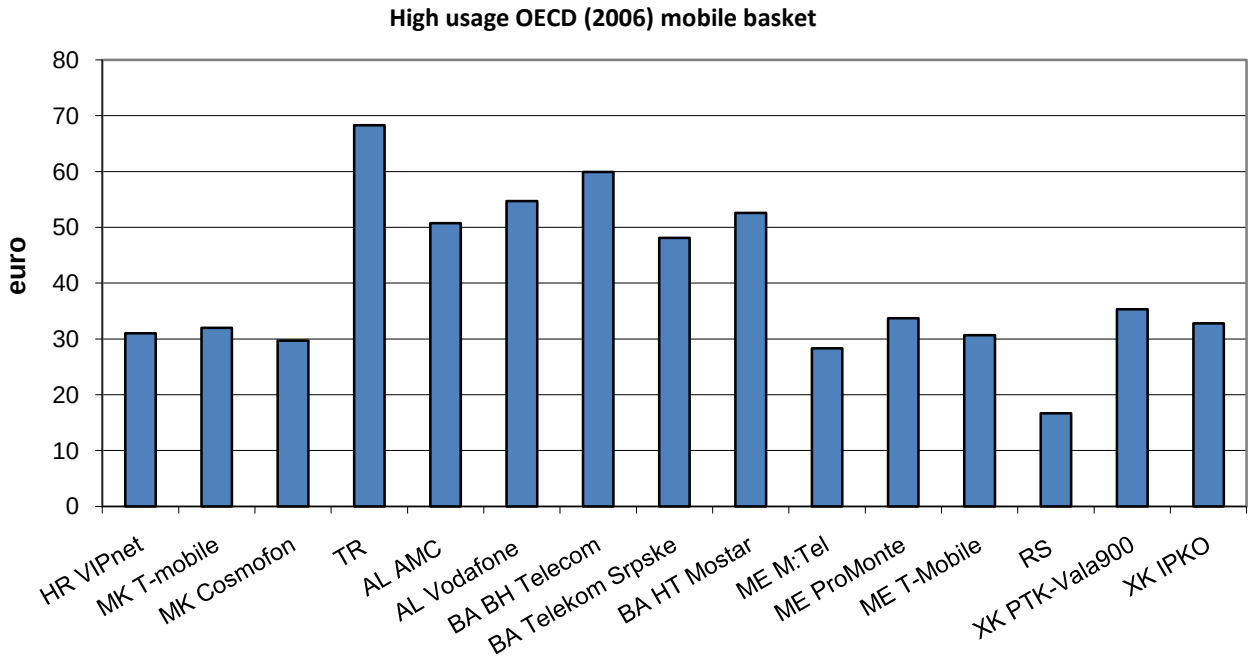


Figure 50 - High usage mobile basket

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

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

On June 30, 2007 the EU regulation on international mobile roaming came into force.[26] It set price caps for wholesale and retail charges and requires a pro-active provision of roaming prices to customers via SMS. The Regulation sets the maximum retail charges for 2007-2009 for outgoing and received calls and also for wholesale charges. However, operators in South-East Europe may not have access to the regulated wholesale tariffs within the EU and are not obliged to offer similar rates to other European operators.

Table J.1 sets out the current arrangements for cross-border tariffs for fixed and mobile tariffs. It also identifies an special international mobile roaming arrangements. However, if addressed only retail roaming offers as It is beyond the scope of this project to assess confidential agreements on wholesale Inter Operator Tariffs (IOTs).

Country	Fixed network	Mobile network	Special retail international roaming offers
Croatia	-	-	-
FYROM	-	-	-
Turkey	-	-	-
Albania		There are cross-border arrangements for international mobile to mobile calls on networks that are part of the same international group. AMC reduces the charges by 34% for calls to other Cosmote Group networks (four SEE countries including Greece). Vodafone Albania charges for calls to Vodafone Greece are 34% lower than calls to neighbouring countries. Calls to Vodafone Group mobile operators are charged at lower tariffs than calls to other mobiles of the same country. Eagle Mobile (a new entrant) does not currently have any such arrangements.	Vodafone Albania applies reduced tariffs if customers roam on Vodafone Greece (34% lower) and on other Vodafone networks. Vodafone also offers it Passport package of roaming tariffs.
Bosnia & Herzegovina Telekom Srpske ad Banja Luka	-	-	Telekom Srpske subscribers have free of charge incoming calls in Serbia and Montenegro in Telekom Serbia network.
Montenegro	To fixed networks in Serbia and Kosovo 0.110 EUR per minute (peak time) 0.055 EUR per minute (off peak)	To fixed networks in Serbia and Kosovo 0.190 EUR per minute (peak time) 0.095 EUR per minute (off peak)	All three mobile operators in Montenegro have special roaming offers for Serbia and Kosovo, with no charge for incoming calls when the user is in roaming.

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

Country	Fixed network	Mobile network	Special retail international roaming offers
Serbia	Fixed Serbia – fixed Montenegro €0.139 per minute for residential, €0.17 per minute for business users. The same price is for fixed Serbia – fixed Republika Srpska (Republika Srpska is part of Bosnia & Herzegovina). For the rest of Bosnia & Herzegovina international rate for zone 1 is applied (€0.159 per minute for residential, €0.197 for business users). Fixed Serbia – mobile Montenegro €0.206 per minute for residential, €0.255 for business users. Fixed Serbia – mobile Republika Srpska €0.139 per minute for residential, €0.17 for business users.	Telekom Srbija (mts) For these three operators: Montenegro m:tel Bosnia & Herzegovina (Republika Srpska) m:tel Telekom Srpska fixed network the incoming call per minute is €0.135. In all neighbouring countries with Serbia incoming call per minute is €0.339.	Vip mobile All operators owned by mobilkom austria: mobilkom austria (A1) - Austria, Mobiltel (M-TEL) - Bulgaria, Vipnet (HR VIP) - Croatia, mobilkom liechtenstein (FL1) - Liechtenstein, Si.mobil (SI.MOBIL) - Slovenia, Vip operator (Vip MK) – Macedonia (€0.327 incoming call per minute)
Kosovo	-	-	-

Table J.1 - Special cross-border arrangements for retail fixed and mobile tariffs

Note:

Montenegro: These are the prices of incumbent operator, without VAT (17%). The prices are the same both for residential and business users, with discount of 50% in off-peak time (19:00-07:00). Standard prices for Zone 1 of T-Com Montenegro is 0.11 EUR per minute for fixed networks, 0.27 EUR per minute for mobile networks, same for peak time and off-peak time.

K. Leased lines retail tariffs

1. National leased lines

Leased lines are the building blocks for alternative networks that compete, directly or indirectly, with the networks of the incumbent operators. Before competition begins in a market the prices are generally quite high. Price pressures are introduced as alternatives become available, for example, by operators associated with energy and railway companies. Such competition has probably had more effect on prices than obligations requiring cost orientation, at least on more popular route.

There is a long history of legislation, litigation, reporting on and a sector inquiry into the provision of leased lines. A pro-competitive framework was set out in a Council Directive in 1992.[27] A minimum set of leased lines was carried through into the 1998 and 2003 regulatory packages, though it is now proposed to handle these in a technology neutral manner, using market analyses for the provision of local access.

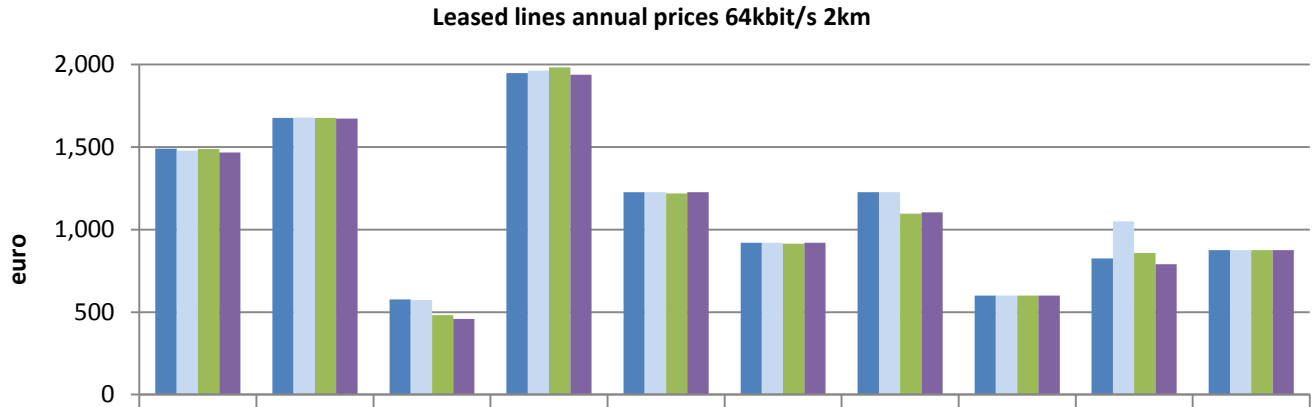
In a series of figures below, the tariffs for national leased lines are shown for 2 km leased lines with the transmission capacities of 64 kbits/s, 2 Mbits/s and 34 Mbit/s.

All prices are annual and retail, excluding VAT and without any one-time or connection charges. Not all operators have tariffs that correspond directly to these categories, in which case the closest alternative has been selected. In Turkey, the leased line offerings are based not on distance but on four levels: 1) same exchange, 2) different exchange, 3) inner city, and 4) intercity. The 2 km distance has been considered to be the "different exchange" rate.

Leased lines at 64 kbits/s are now often replaced by more advanced technologies such as ISDN, ADSL and SDSL where these are available with Service Level Agreements (SLA).

Figure 51 shows the prices for a short circuit of 2 kilometres at 64 kbit/s speed. While Montenegro and Turkey are relatively cheap, Albania, Croatia and FYROM are expensive in terms of South-East Europe.

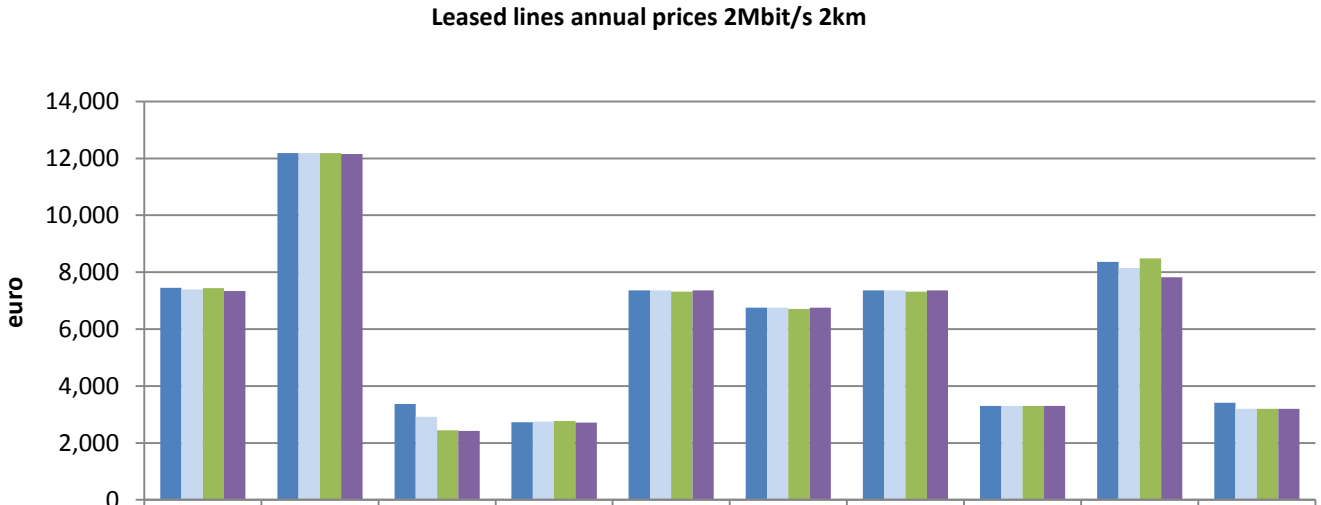
[27] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31992L0044:EN:HTML



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
Jul-06	1,491	1,677	576	1,947	1,227	920	1,227	600	824	876
Jul-07	1,479	1,678	573	1,964	1,227	920	1,227	600	1,050	876
Apr-08	1,488	1,677	482	1,982	1,219	914	1,097	600	857	876
Jan-09	1,467	1,672	459	1,939	1,227	920	1,104	600	790	876

Figure 51 - Annual prices for a 2 km 64 kbits/s leased line

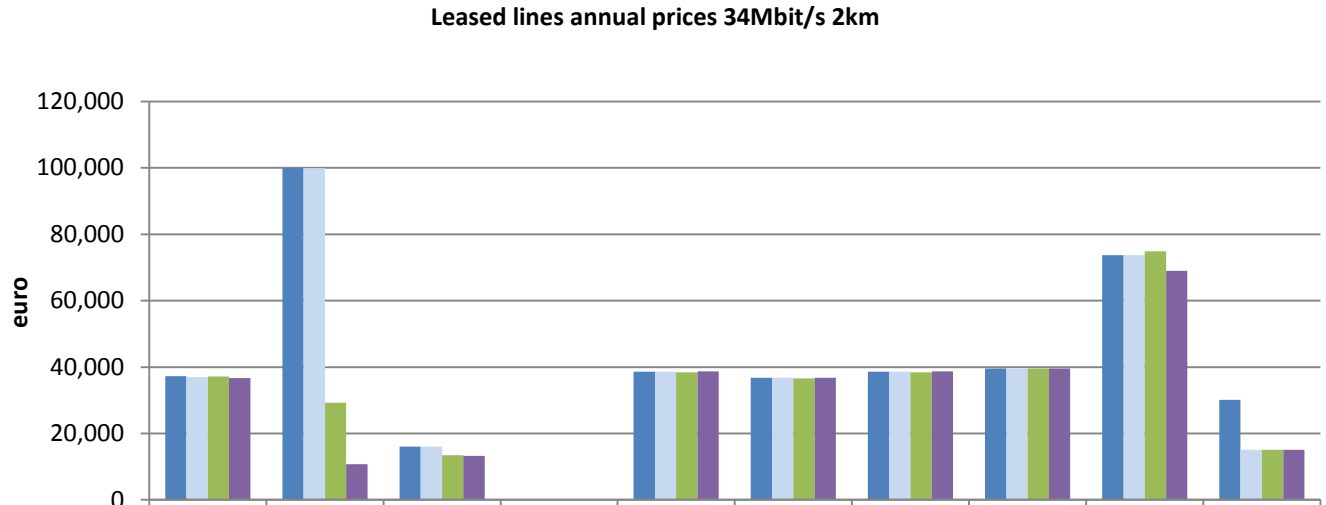
Figure 52 shows the prices for short circuits of 2 km at the higher speed of 2 Mbit/s, though these too have often been replaced by other technologies where appropriate SLAs are available.



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
Jul-06	7,454	12,190	3,366	2,726	7,362	6,748	7,362	3,300	8,359	3,408
Jul-07	7,394	12,190	2,914	2,750	7,362	6,748	7,362	3,300	8,152	3,204
Apr-08	7,440	12,187	2,450	2,774	7,314	6,704	7,314	3,300	8,487	3,204
Jan-09	7,337	12,148	2,418	2,714	7,363	6,749	7,363	3,300	7,822	3,204

Figure 52 - Annual prices for a 2km 2 Mbits/s leased line

Figure 53 shows the prices for higher speed leased lines at 34Mbits/s. The shorter 2km circuits are currently not available in Albania and in FYROM. The prices in Kosovo and Turkey are relatively low, while Serbia is expensive.



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
Jul-06	37,271	99,887	16,091		38,650	36,810	38,650	39,600	73,728	30,084
Jul-07	36,971	99,887	16,015		38,650	36,810	38,650	39,600	73,728	15,048
Apr-08	37,201	29,268	13,468		38,397	36,569	38,397	39,600	74,854	15,048
Jan-09	36,683	10,704	13,292		38,654	36,814	38,654	39,600	68,987	15,048

Figure 53 - Annual prices for a 2km 34Mbits/sec leased line

2. International leased lines

International leased lines have traditionally been provided in the form of two half-circuits, one national half-circuit being connected to another half-circuit or to a transit circuit near the border, with the corresponding arrangement in the destination country. International circuits can be provided in the form of double routing or single routing. Double routing includes an additional element of redundancy and such lines have a higher charge. Only single routing lines are only available in Turkey, otherwise the tariffs are for double routing half-circuits.

The annual prices (excluding VAT) for international half-circuits are given for:

- 64 kbit/s to a near country and to the UK
- 2 Mbit/s to a near country and to the UK

For comparison, EU averages have been taken from the 14th Implementation report, showing prices in the autumn of 2006. These are to a near and to a distant country which, for this report, has been uniformly taken to be the United Kingdom.

Figure 54, Figure 55 and Figure 56 show the annual charges for 64 kbps half-circuits. Albania and FYROM are the obvious exception on the longer routes to the UK.

Figure 57, Figure 58 and Figure 59 shows the 2 Mbps prices, where again Albania is expensive on the routes to the UK.

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

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

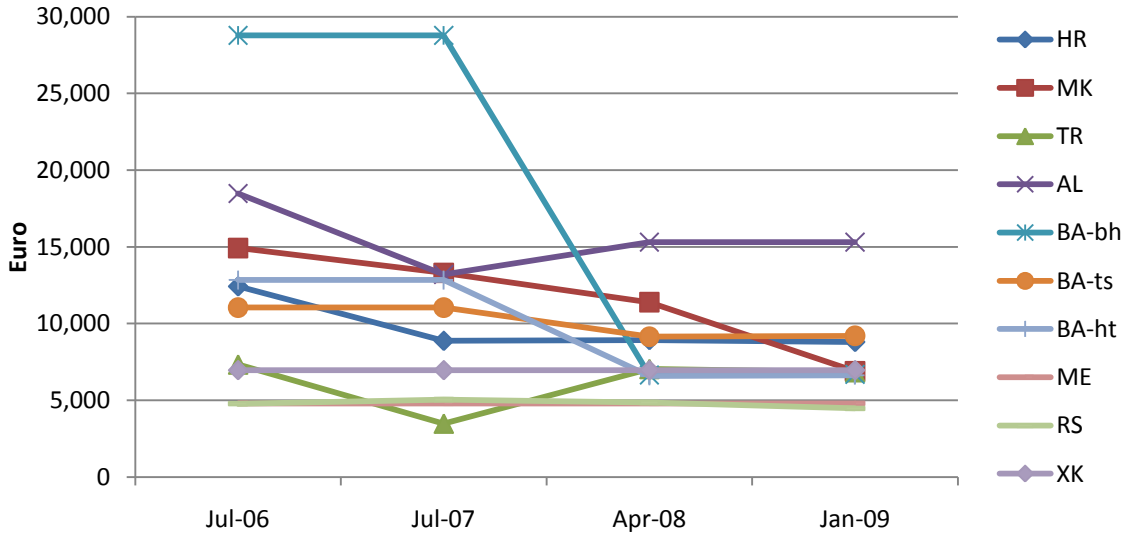


Figure 54 - Annual prices for international half circuits 64 kbps to near country (2006-2009)

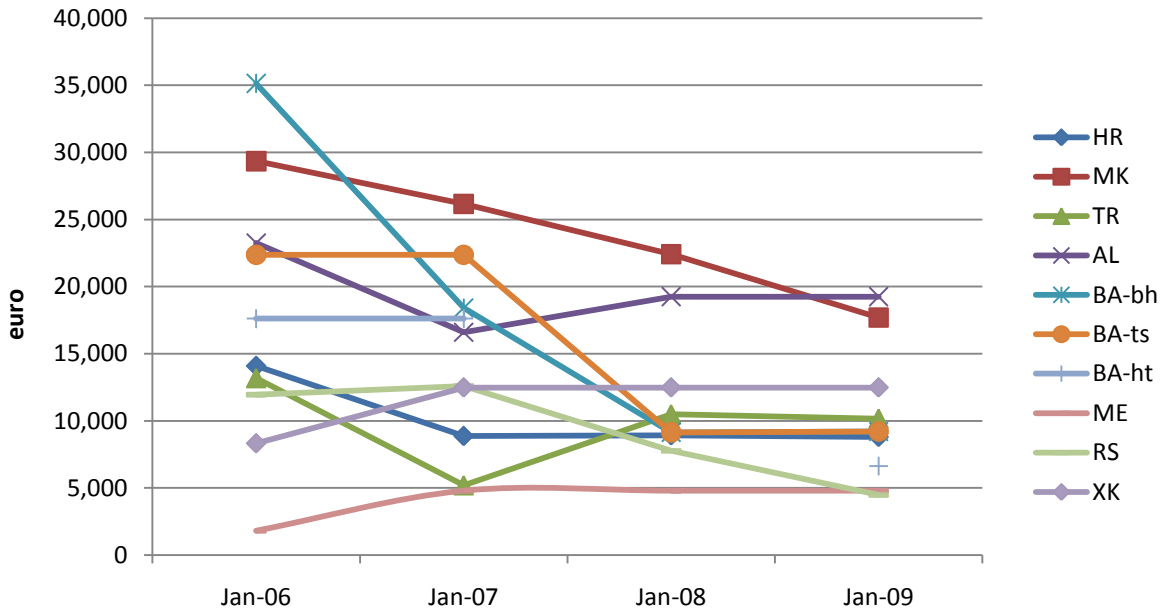
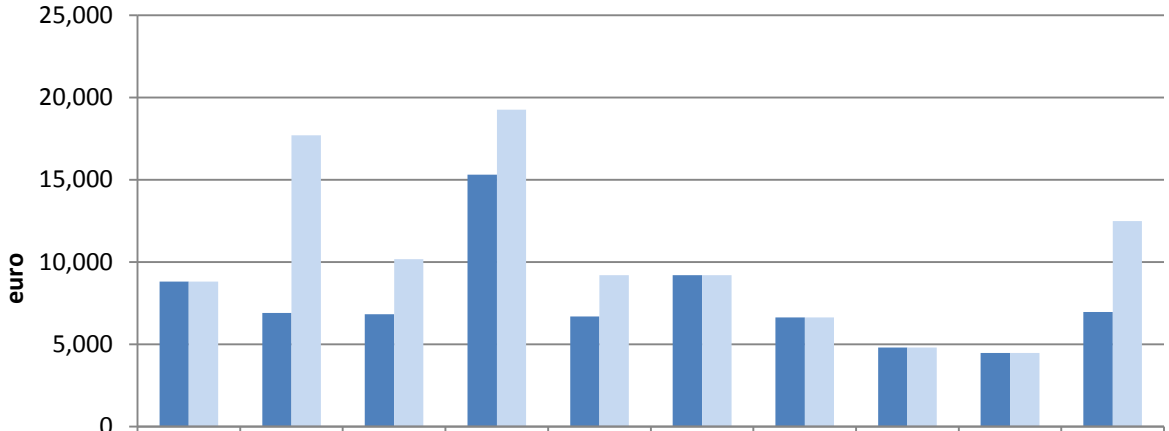


Figure 55 - Annual prices for a 64 kbit/sec international half-circuit to the UK (2006-2009)



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
to near country	8,804	6,900	6,827	15,305	6,688	9,203	6,626	4,800	4,472	6,960
to the UK	8,804	17,700	10,166	19,255	9,203	9,203	6,626	4,800	4,472	12,480

Figure 56 - Annual prices for a 64 kbit/sec international half-circuit, 2009

For 2 Mbps half circuits to a near country, retail prices were reduced significantly, except in Albania, where they remain the highest in the region 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 for regulation of terminating and trunk segments of leased lines adopted by the NRA in September 2008.

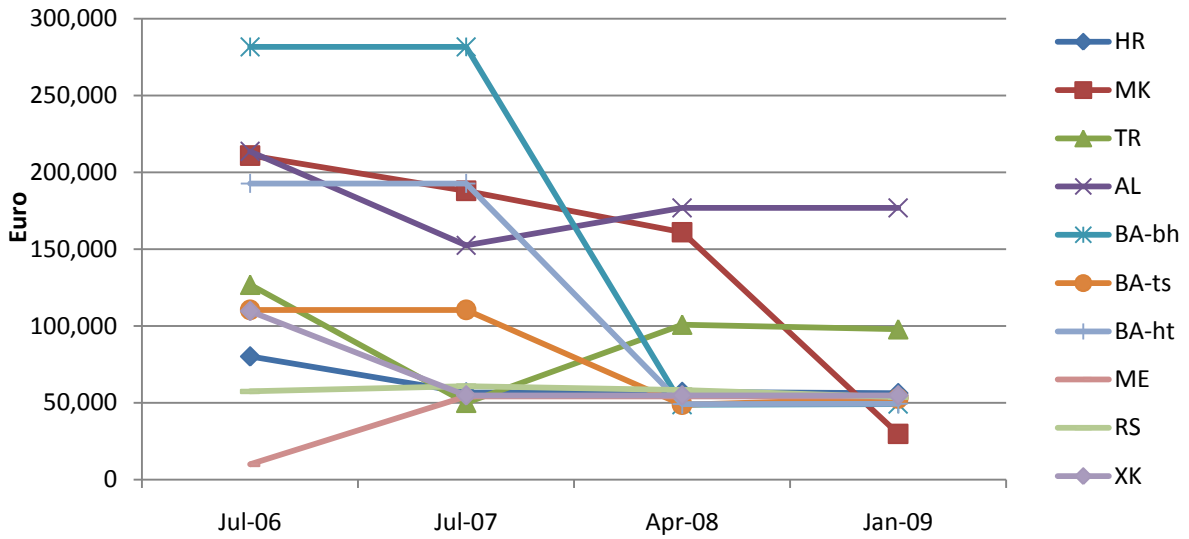


Figure 57 - Annual prices for international half circuits 2 Mbps to near country (2006-2009)

In the case of 2 Mbps half circuits to the UK, charges have not fallen significantly, except in FYROM, Serbia and Republika Srpska. The Albanian incumbent charges significantly higher than the rest of the region. Turkey also remains expensive at €165,000 per annum. All other incumbents are keeping charges at below €100,000 per annum.

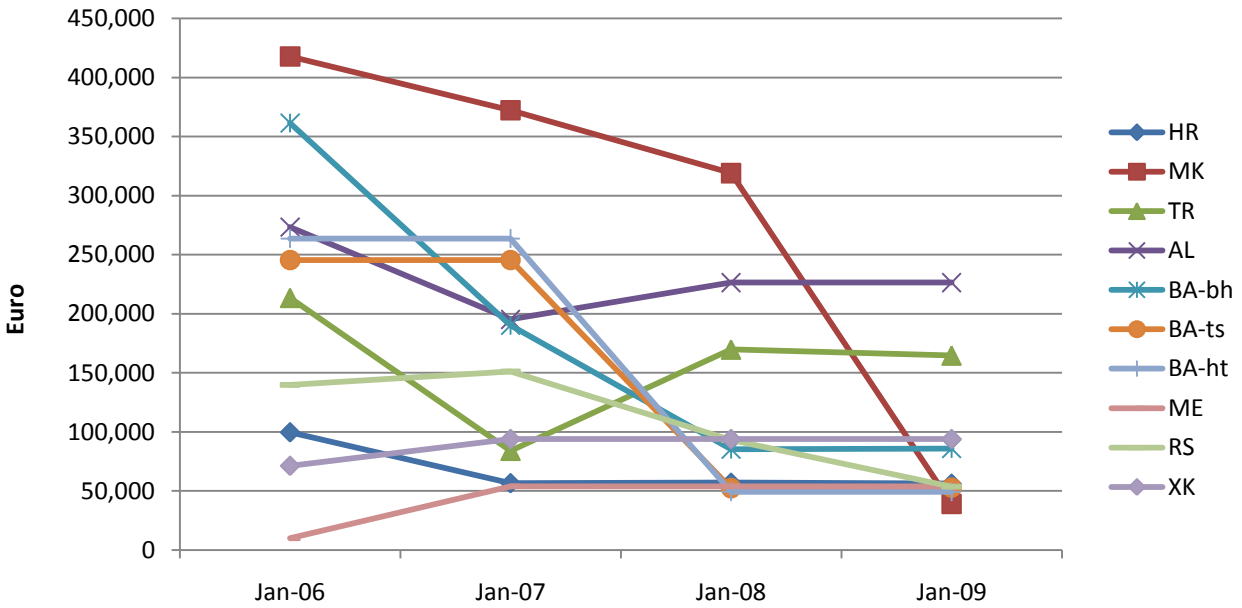
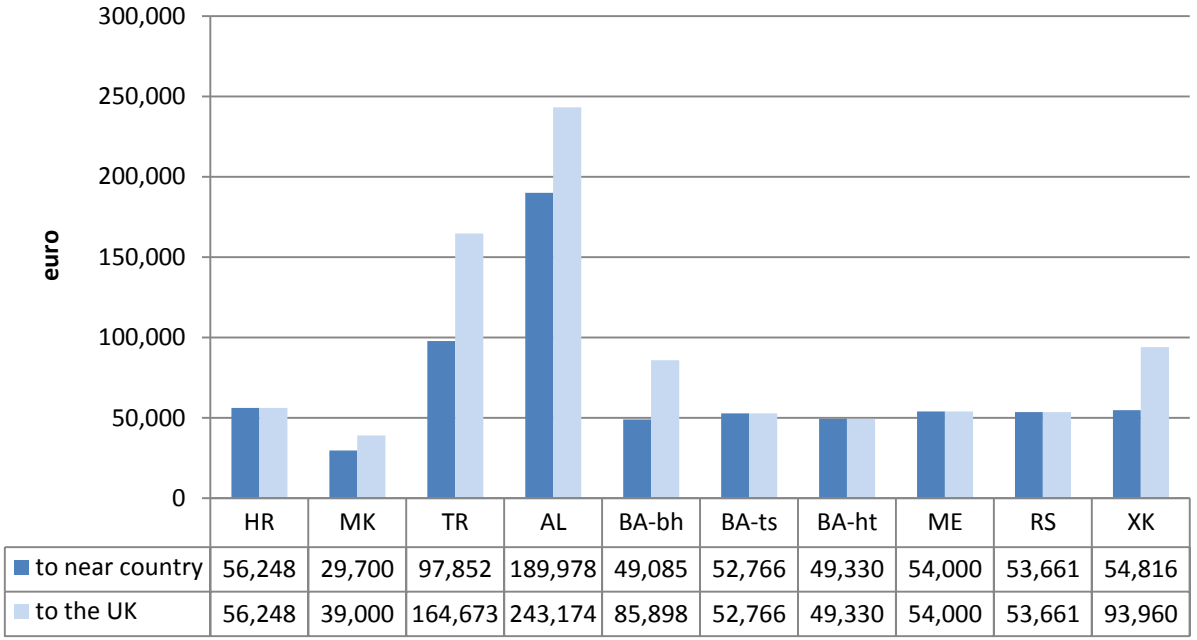


Figure 58 - Annual prices for a 2 Mbit/sec international half-circuit to the UK (2006-2009)



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
to near country	56,248	29,700	97,852	189,978	49,085	52,766	49,330	54,000	53,661	54,816
to the UK	56,248	39,000	164,673	243,174	85,898	52,766	49,330	54,000	53,661	93,960

Figure 59 - Annual prices for a 2 Mbit/sec international half-circuit, 2009

Notes:
Turkey: Without Special Communications Tax

L. Internet and broadband retail prices

1. Dial-up Internet access cost

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

Country	ISP charge		PSTN usage		Total	
	€	PPP	€	PPP	€	PPP
Croatia	38.78	64.65	19.89	32.32	59.67	96.97
FYROM	73.79	200.97	-	-	73.79	200.97
Turkey	4.47	7.64	20.34	34.74	24.82	42.37
Albania	11.76	27.19	23.26	54.72	35.02	82.37
Bosnia & Herzegovina / BH Telecom	7.36	16.65	14.36	31.58	21.72	47.77
Bosnia & Herzegovina / Telekom Srpske	11.96	26.32	21.54	47.37	33.50	73.69
Bosnia & Herzegovina / HT Mostar	5.98	13.16	31.59	69.48	37.57	82.64
Montenegro	9.80	22.48	28.08	64.37	37.88	86.85
Serbia	12.65	30.05	12.92	30.69	25.58	60.74
Kosovo	-	-	27.84	-	27.84	-

Table L.1 shows the cost of forty hours of dial-up access to the Internet. The prices vary considerably across countries and even within Bosnia & Herzegovina. The most expensive prices are in FYROM at over €70 per month, followed by Croatia, slightly below €60. The remaining countries have charges between €20 and €37 per month.

Country	ISP charge		PSTN usage		Total	
	€	PPP	€	PPP	€	PPP
Croatia	38.78	64.65	19.89	32.32	59.67	96.97
FYROM	73.79	200.97	-	-	73.79	200.97
Turkey	4.47	7.64	20.34	34.74	24.82	42.37
Albania	11.76	27.19	23.26	54.72	35.02	82.37
Bosnia & Herzegovina / BH Telecom	7.36	16.65	14.36	31.58	21.72	47.77
Bosnia & Herzegovina / Telekom Srpske	11.96	26.32	21.54	47.37	33.50	73.69
Bosnia & Herzegovina / HT Mostar	5.98	13.16	31.59	69.48	37.57	82.64
Montenegro	9.80	22.48	28.08	64.37	37.88	86.85

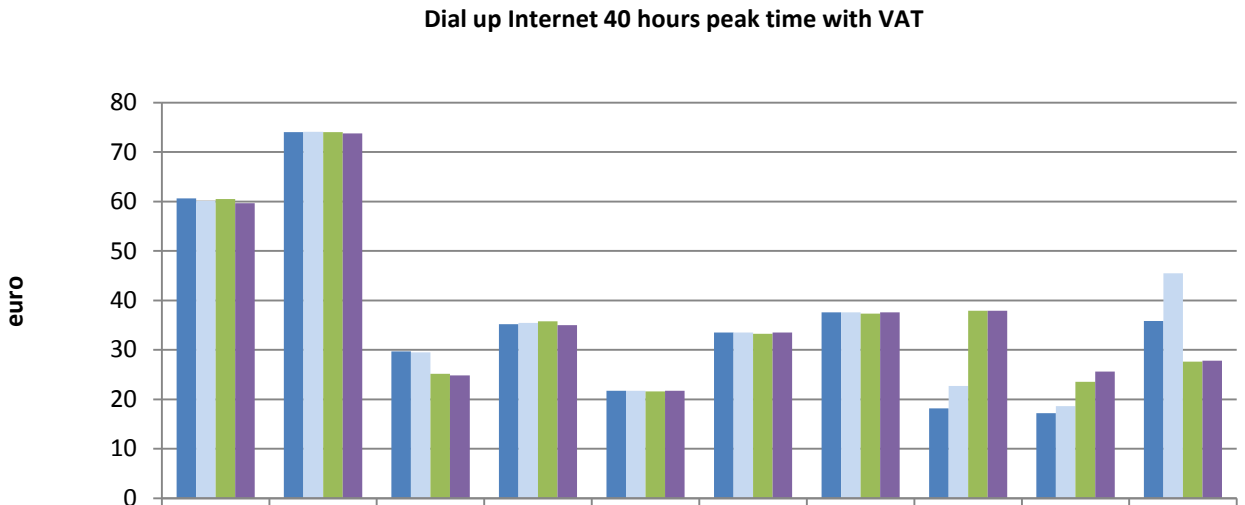
Country	ISP charge		PSTN usage		Total	
	€	PPP	€	PPP	€	PPP
Serbia	12.65	30.05	12.92	30.69	25.58	60.74
Kosovo	-	-	27.84	-	27.84	-

Table L.1 - Dial-up Internet access cost - 40 hours at peak time including VAT

Notes:

Turkey: Includes Special Communications Tax 15%

Montenegro: ISP price is dependant only on user's category (residential or business). Residential users 40 hours = 9.8 EUR (VAT included - 17%)
Business users 40 hours = 15.8 EUR (VAT included - 17%)
These are the prices offered by T-Com Montenegro, the largest ISP in Montenegro. Both residential and business users have several tariff packages at their disposal (10, 20, 50 or 100 hours, and also unlimited monthly access), with different prices.
PSTN price is without VAT (17%) and it is for residential users, in peak-time. Price is dependant only on traffic period (peak or off-peak).
Dial-up, peak time (07:00-19:00) 24.00 EUR (40*60*0.01)
Dial-up, off-peak time (19:00-07:00) 12.00 EUR (40*60*0.005)



	HR	MK	TR	AL	BA-bh	BA-ts	BA-ht	ME	RS	XK
Jul-06	60.63	74.05	29.66	35.17	21.71	33.5	37.56	18.17	17.21	35.81
Jul-07	60.14	74.08	29.51	35.48	21.71	33.5	37.56	22.72	18.6	45.51
Apr-08	60.51	74.03	25.18	35.8	21.57	33.28	37.32	37.88	23.55	27.6
Jan-09	59.67	73.79	24.82	35.02	21.72	33.5	37.57	37.88	25.58	27.84

Figure 60 - 40 hours peak time use of Internet (2006-2009) in Euro

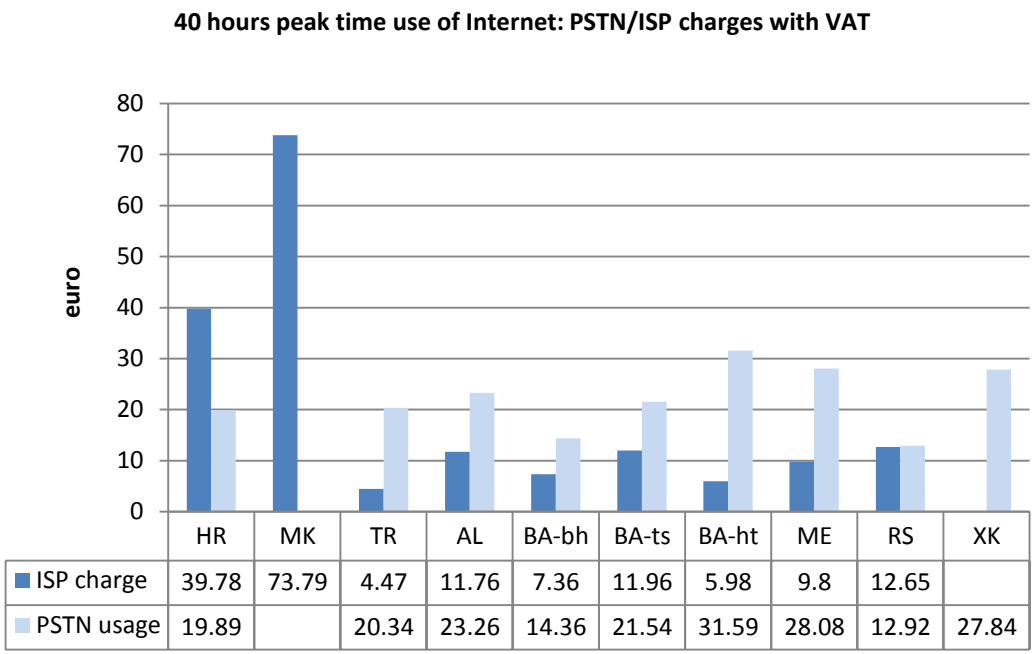


Figure 61 - 40 hours peak time use of Internet: PSTN/ISP charges, in Euro

For twenty hours a similar range of prices can be seen in Table L.2. The cheapest is Serbia, while the most expensive offers are in Albania and FYROM.

Country	ISP charge		PSTN usage		Total	
	€	PPP	€	PPP	€	PPP
Croatia	9.95	16.16	4.97	8.08	14.92	24.24
FYROM	18.45	50.24			18.45	50.24
Turkey	4.47	7.64	10.17	17.37	14.64	25.01
Albania	11.76	27.65	9.31	21.89	21.06	49.54
Bosnia & Herzegovina / BH Telecom	7.36	16.19	3.59	7.9	10.95	24.08
Bosnia & Herzegovina / Telekom Srpska	2.99	6.58	7.18	15.79	10.17	22.37
Bosnia & Herzegovina / HT Mostar	5.98	13.16	9.33	20.53	15.31	33.69
Montenegro	4.90	11.24	7.02	16.09	11.92	27.33

Country	ISP charge		PSTN usage		Total	
	€	PPP	€	PPP	€	PPP
Serbia	6.66	15.82	3.23	7.68	9.89	23.49
Kosovo	-	-	13.92	-	13.92	-

Table L.2 - Dial-up Internet access cost – 20 hours at off-peak time, in Euro

Notes:

Turkey: Includes Special Communications Tax 15%.

Montenegro: ISP price is dependant only on user's category (residential or business).
Residential users 20 hours = 4.9 EUR (VAT included - 17%)
Business users 20 hours = 7.9 EUR (VAT included - 17%)
These are the prices offered by T-Com Montenegro, the largest ISP in Montenegro. Both residential and business users have several tariff packages at their disposal (10, 20, 50 or 100 hours, and also unlimited monthly access), with different prices. PSTN price is for residential users, in off-peak time. Price is dependent only on traffic period (peak or off-peak).

2. Broadband Internet access cost

Table L.3, Figure 62, Figure 63 and Figure 64 below show the monthly subscription charges for broadband Internet access for both xDSL from the incumbent operator and for an alternative operator, in euro including VAT.

Country	Speed	Incumbent DSL, €	Alternative operator, €	Alternative operator and technology
Croatia	256 kbit/s	10.73		
	512 kbit/s	10.73		
	2 Mbit/s	10.73	9.24	OT-Optima telekom d.d., ADSL
FYROM	256 kbit/s			
	512 kbit/s	9.59	9.42	OnNet, ADSL over LLU and wholesale ADSL
	2 Mbit/s			
Turkey	256 kbit/s			
	512 kbit/s			
	2 Mbit/s	12.63	14.10	Doğan Telekom (www.smileadsl.com), ADSL
Albania	256 kbit/s	19.38	28.63	ABCOM, ADSL

Country	Speed	Incumbent DSL, €	Alternative operator, €	Alternative operator and technology
	512 kbit/s	19.52	38.22	ABCOM, ADSL
	2 Mbit/s	96.92		ABCOM, ADSL
Bosnia & Herzegovina: BH Telecom	256 kbit/s	11.37	8.97	Logosoft d.o.o. Sarajevo - DSL
	512 kbit/s	14.96	14.96	Logosoft d.o.o. Sarajevo – DSL
	2 Mbit/s	26.92	26.92	Logosoft d.o.o. Sarajevo - DSL
Bosnia & Herzegovina: Telekom Srpske	256 kbit/s	11.37		
	512 kbit/s	14.96		
	2 Mbit/s	59.82		
Bosnia & Herzegovina: HT Mostar	256 kbit/s	11.37		
	512 kbit/s	17.35		
	2 Mbit/s	29.31		
Montenegro	256 kbit/s			Not offered
	512 kbit/s		15.00	M:Tel; Wi-Max (FWA at 3.5 GHz band, IEEE 802.16d standard)
	2 Mbit/s		38.00	M:Tel; Wi-Max (FWA at 3.5 GHz band, IEEE 802.16d standard)
Serbia	256 kbit/s	13.30		Not offered
	512 kbit/s	23.82		Not offered
	2 Mbit/s	24.12	27.97	Cable
Kosovo	256 kbit/s	8.57		Not offered
	512 kbit/s	14.83		Not offered
	2 Mbit/s	45.39	11.54	Ipko, cable

Table L.3 - Broadband Internet monthly subscription (including VAT)

Notes:

Croatia: All alternative operators provide minimum ADSL speed of 1024 kbit/s.

FYROM: The speed of 256 kbit/s is not provided by any ISP. The lowest speed which is provided is 512 kbit/s. The incumbent's cheapest monthly subscription for 512 kbit/s shown in the table includes 10 GB data traffic limit. The access speed is reduced on 64/64 kbit/s, when the total monthly traffic exceeds this level. There is a whole range of other offers for 512 kbit/s from the incumbent, with the monthly subscription prices from €12 to €28 and with different data limits from 10 GB to 30 GB.

Turkey: Includes 5% Special Communications Tax. The speeds of 256 kbit/s and 512 kbit/s are not provided by any ISP. The lowest speed which is provided is 1 Mbit/s. The ANO's subscription includes 4 GB data traffic limit.

Montenegro: Incumbent operator T-Com Montenegro has not packages with 256 kbit/s, 512 kbit/s and 2 Mbit/s in its standard DSL offer.
According to its pricelist, offered packages for residential users are:

- 1Mbps/128kbps, 1G per month €11.96 (no VAT included)
- 1Mbps/256kbps, flat rate €17.09 (no VAT included)
- 3Mbps/256kbps, flat rate €21.36 (no VAT included)
- 6Mbps/256kbps, flat rate €38.45 (no VAT included)

Alternative operator M:Tel has not packages with 256 kbit/s. According to its pricelist, offered packages for residential users are:

- 512kbps/128kbps, flat rate € 12.82 (no VAT included, contract signed for 24 months)
- 1Mbps/256kbps, flat rate €25.64 (no VAT included, contract signed for 24 months)
- 2 Mbps/256 kbps, flat rate €32.48 (no VAT included, contract signed for 24 months)

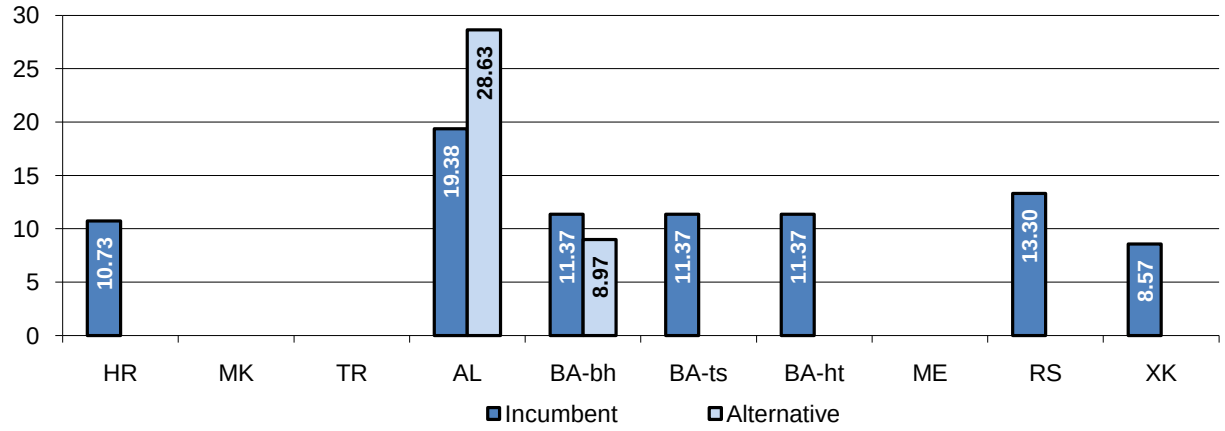


Figure 62 - Broadband 256 kbps monthly subscription charges in euro, including VAT

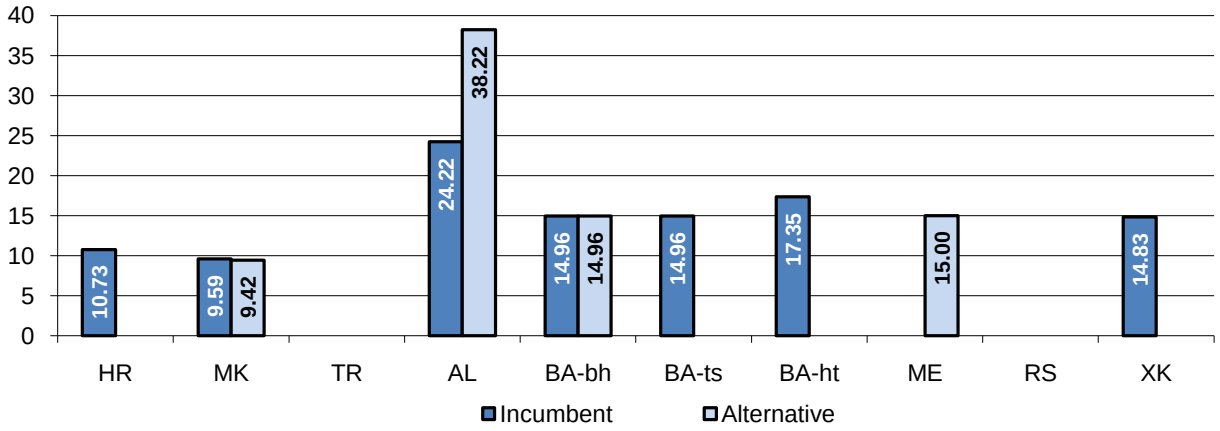


Figure 63 - Broadband 512 kbps monthly subscription charges in euro, including VAT

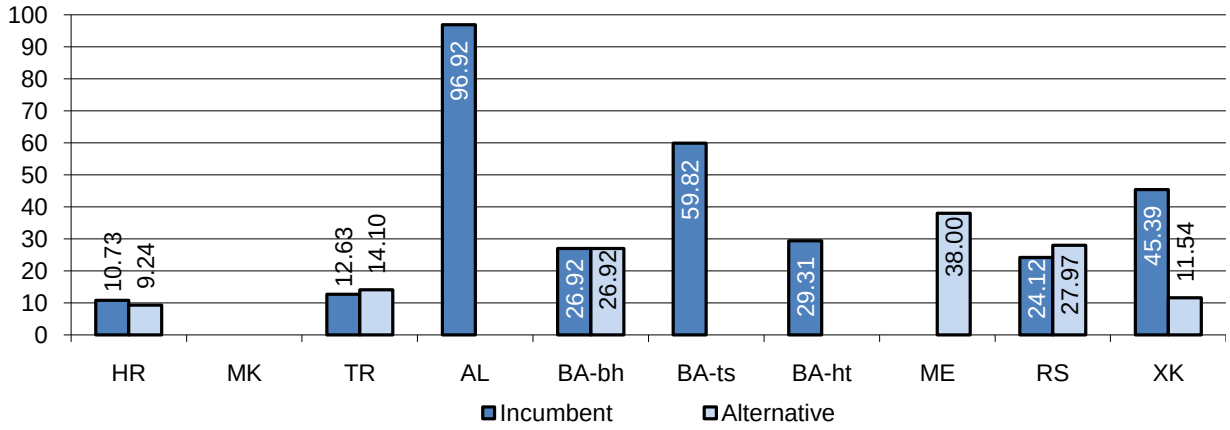


Figure 64 - Broadband 2 Mbps monthly subscription charges in euro, including VAT

M. Wholesale tariffs

The information in this section has a reference date of January 1, 2009, unless stated otherwise.

1. Call termination on the incumbent and alternative operators' fixed networks

Table M.1 and Table M.2 show the interconnection tariffs on the fixed networks of the incumbent and major alternative operators, respectively. This information for alternative networks is not available for all of the monitored countries, either because it is seen as confidential or simply because there are no alternative fixed networks.

In most of the monitored countries, fixed operators apply the same termination rates, regardless of whether a call originates on a national fixed or mobile network. The exceptions are Croatia and Kosovo, where higher termination rates apply to calls originating on mobile networks.

In addition to per minute call conveyance charges, the incumbent operators in Croatia and Serbia, as well as all fixed network operators in Albania, apply call setup charges.

Country		Local, €				Single transit, €				Double transit, €			
		Peak		Off-peak		Peak		Off-peak		Peak		Off-peak	
		Setup	Per min.	Setup	Per min.	Setup	Per min.	Setup	Per min.	Setup	Per min.	Setup	Per min.
Croatia		0.0021	0.0066	0.0010	0.0033	0.0020	0.0102	0.0010	0.0051	0.0020	0.0168	0.0010	0.0084
FYROM		0.0000	0.0070	0.0000	0.0047	0.0000	0.0103	0.0000	0.0068	0.0000	0.0143	0.0000	0.0094
Turkey		N/A	N/A	N/A	N/A	0.0000	0.0081	0.0000	0.0081	0.0000	0.0127	0.0000	0.0127
Albania		0.0002	0.0074	0.0002	0.0074	0.0004	0.0146	0.0004	0.0146	0.0006	0.0186	0.0006	0.0186
Bosnia & Herzegovina	BH Telecom	0.0000	0.0100	0.0000	0.0050	0.0000	0.0150	0.0000	0.0075	0.0000	0.0205	0.0000	0.0102
	Telekom Srpske	0.0000	0.0100	0.0000	0.0083	0.0000	0.0150	0.0000	0.0083	0.0000	0.0205	0.0000	0.0205
	HT Mostar	0.0000	0.0100	0.0000	0.0075	0.0000	0.0150	0.0000	0.0112	0.0000	0.0205	0.0000	0.0153
Montenegro		0.0000	0.0225	0.0000	0.0225	0.0000	0.0270	0.0000	0.0270	N/A	N/A	N/A	N/A
Serbia		0.0033	0.0129	0.0016	0.0064	0.0033	0.0207	0.0016	0.0103	0.0033	0.0323	0.0016	0.0161
Kosovo		0.0000	0.0400	0.0000	0.0240	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table M.1 - Call termination on the incumbent operator's fixed network

Notes:

Croatia: RIO 2009 charges, based on HAKOM decision of January 26, 2009, in force from March 1, 2009. RIO charges only apply to calls originating from fixed networks. Mobile to fixed termination charges are negotiated commercially, outside the scope of RIO.

Turkey: From May 1, 2009 new termination rates apply, approved by ICTA, as follows: Local - €0.00655/min; Single transit – €0.00805/min; Double transit - €0.01272/min (no peak/off-peak differentiation and no call setup charges).

Country		Local, €				Single transit, €				Double transit, €			
		Peak		Off-peak		Peak		Off-peak		Peak		Off-peak	
		Setup	Per min.	Setup	Per min.	Setup	Per min.	Setup	Per min.	Setup	Per min.	Setup	Per min.
Croatia		0.0000	0.0109	0.0000	0.0054	0.0000	0.0109	0.0000	0.0054	0.0000	0.0109	0.0000	0.0054
FYROM		-	-	-	-	-	-	-	-	-	-	-	-
Turkey		-	-	-	-	-	-	-	-	-	-	-	-
Albania		0.0004	0.0097	0.0004	0.0097	0.0006	0.0190	0.0006	0.0190	0.0190	0.0006	0.0190	0.0190
Bosnia & Herzegovina	BH Telecom	0.0000	0.0100	0.0000	0.0050	0.0000	0.0150	0.0000	0.0075	0.0000	0.0205	0.0000	0.0102
	Telekom Srpske	0.0000	0.0100	0.0000	0.0083	0.0000	0.0150	0.0000	0.0083	0.0000	0.0205	0.0000	0.0205
	HT Mostar	0.0000	0.0100	0.0000	0.0075	0.0000	0.0150	0.0000	0.0112	0.0000	0.0205	0.0000	0.0153
Montenegro		0.0000	0.0300	0.0000	0.0300	0.0000	0.0300	0.0000	0.0300	N/A	N/A	N/A	N/A
Serbia		-	-	-	-	-	-	-	-	-	-	-	-
Kosovo		0.0000	0.0400	0.0000	0.0240	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table M.2 - Call termination on the largest alternative network

Figure 65, Figure 66 and Figure 67 show the fixed call termination rates on the incumbent and alternative networks at local, single transit and double transit level, respectively, in comparison with the EU-27 average values according to the 14th Implementation Report.

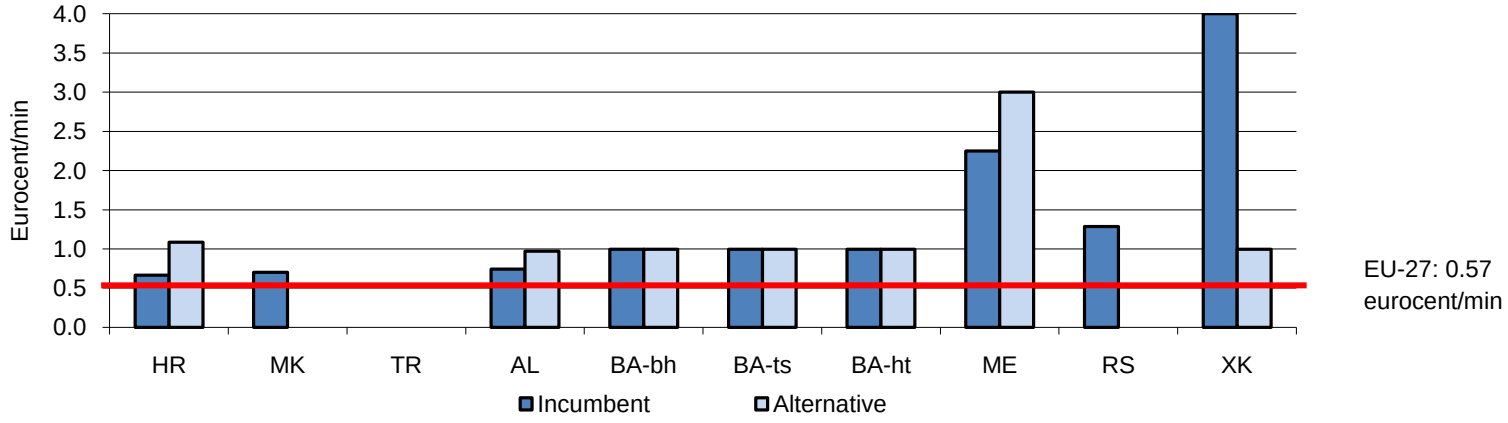


Figure 65 - Local call termination on the fixed incumbent and alternative network

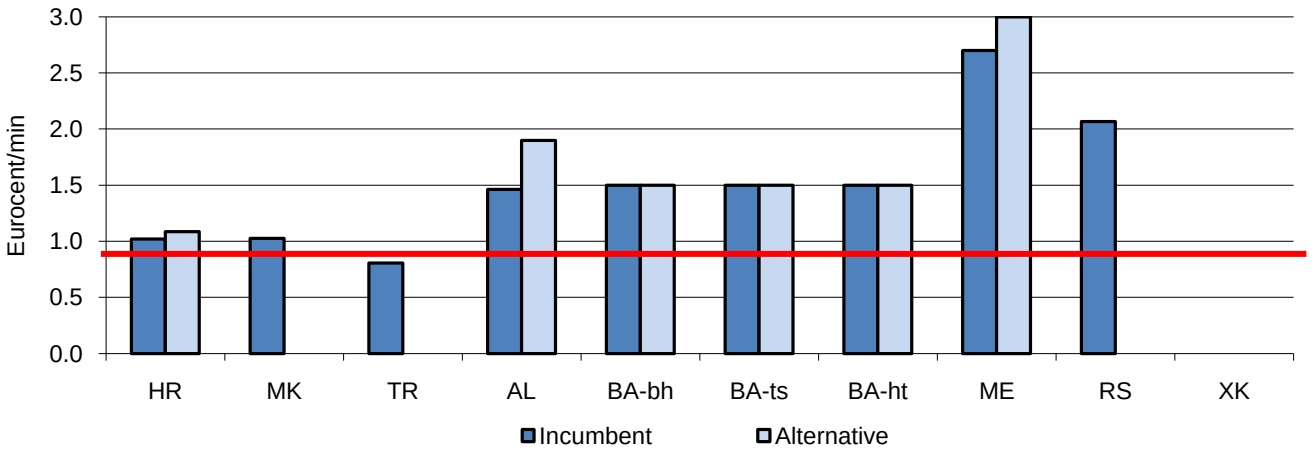


Figure 66 - Single transit call termination on the fixed incumbent and alternative network

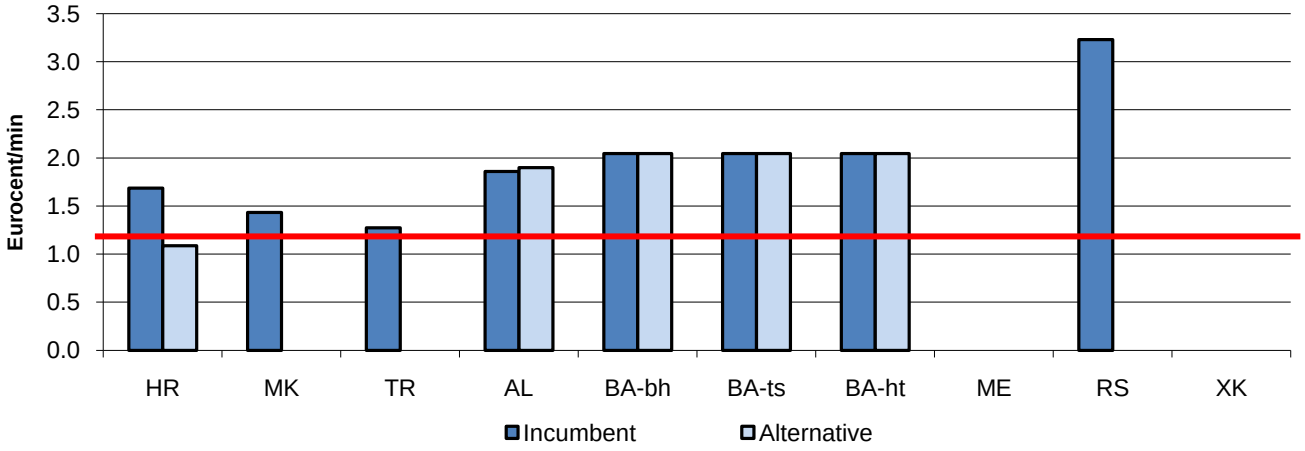


Figure 67 - Double transit call termination on the fixed incumbent and alternative network

2. Call termination on mobile networks – all mobile operators

Table M.3 below presents the termination rates of the mobile operators for all countries where this information is available.

Country	Operator	Peak, €		Off-peak, €	
		Setup	Per min	Setup	Per min
Croatia	T-Mobile Hrvatska	0.0000	0.0913	0.0000	0.0913
	VIPnet	0.0000	0.0913	0.0000	0.0913
	Tele2	0.0000	0.0913	0.0000	0.0913
FYROM	T-Mobile	0.0000	0.0619	0.0000	0.0619
	Cosmofon	0.0000	0.0619	0.0000	0.0619
	VIP Operator	0.0000	0.0953	0.0000	0.0953
Turkey	Turkcell	0.0000	0.0429	0.0000	0.0429
	Vodafone	0.0000	0.0447	0.0000	0.0447
	Avea	0.0000	0.0527	0.0000	0.0527
Albania	AMC	0.0029	0.0965	0.0029	0.0965
	Vodafone Albania	0.0029	0.0965	0.0029	0.0965
	Eagle Mobile	0.0032	0.1076	0.0032	0.1076
Bosnia & Herzegovina	BH Telecom	0.0000	0.1565	0.0000	0.1565
	Telekom Srpske	0.0000	0.1478	0.0000	0.1478
	HT Mostar (Eronet)	0.0000	0.1565	0.0000	0.1565
Montenegro	ProMonte	0.0000	0.1000	0.0000	0.1000
	T-Mobile	0.0000	0.1000	0.0000	0.1000
	m:tel	0.0000	0.1000	0.0000	0.1000
Serbia	m:ts	0.0000	0.0586	0.0000	0.0586
	Telenor	0.0000	0.0586	0.0000	0.0586
	Vip mobile	0.0000	0.0586	0.0000	0.0586
Kosovo	Vala	0.0000	0.0400	0.0000	0.0240
	Ipko	0.0000	0.0400	0.0000	0.0240

Table M.3 - Call termination on all mobile networks

Notes:
Croatia: RIO 2009 charges, based on HAKOM decision of January 26, 2009, in force from March 1, 2009.

Turkey: From May 1, 2009 new termination rates apply, approved by ICTA, as follows: Turkcell - €0.03085/min; Vodafone – €0.03179/min; Avea - €0.03650/min (no peak/off-peak differentiation and no call setup charges).

Bosnia & Herzegovina: The termination rates above are applied when a call originates in the fixed network different from the owner of the mobile network. Lower rates are applied when a call originates in the own fixed network: €0.1381/min (BH Telecom); €0.1304/min (Telekom Srpske); €0.1381/min (HT Mostar).

Kosovo: The termination rates above are applied when a call originates in the fixed network. Higher rates are applied when a call originates in another mobile network: €0.068/min peak and €0.06/min off-peak (Vala); €0.112/min peak and €0.099/min off-peak (Ipko). On April 30, 2009 the two mobile operators, Vala and Ipko, reached an agreement to reduce retail tariffs for calls from Vala to Ipko by 35%, from €0.28/min to €0.18/min. At the same time, mobile to mobile termination charges for calls from Vala to Ipko were reduced from €0.112/min to €0.0748/min peak and from €0.099/min to €0.066/min off-peak. New tariffs apply from May 1, 2009.

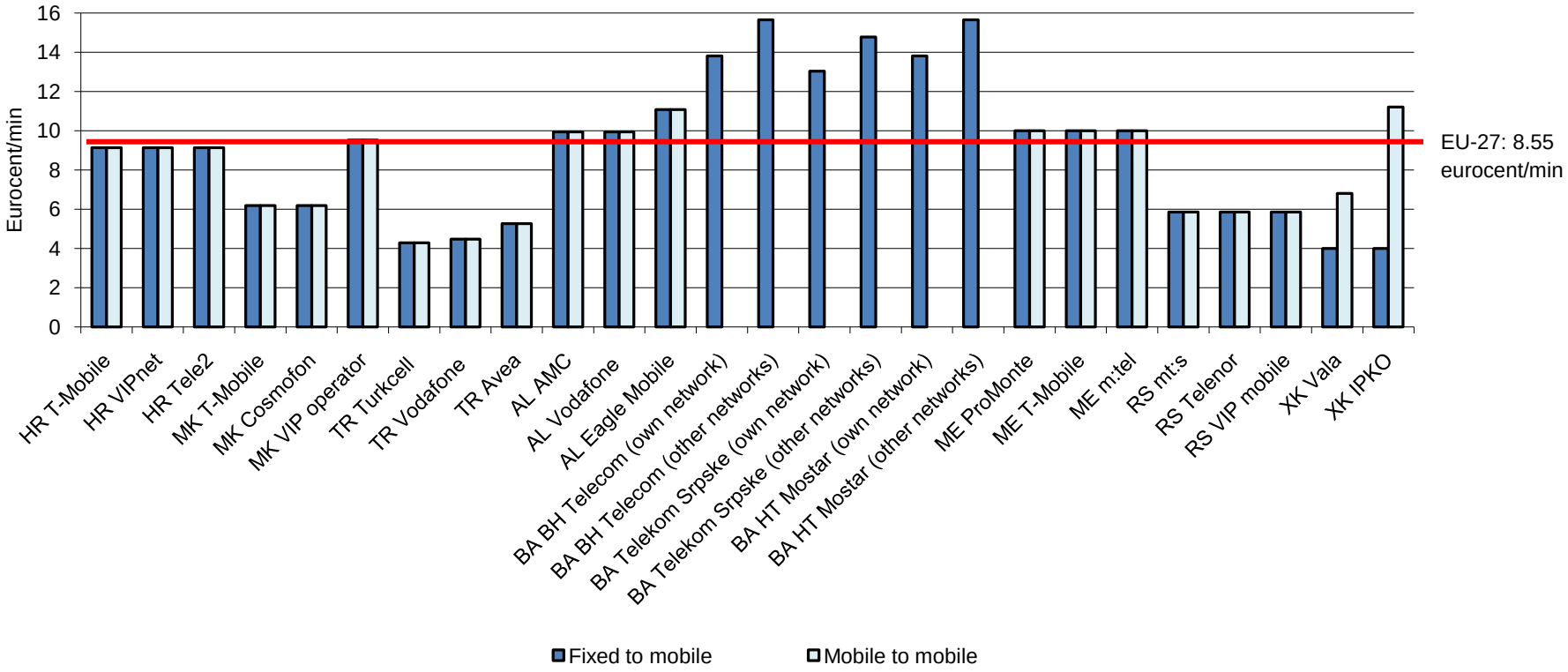


Figure 68 - Mobile termination rates as of January 1, 2009, peak time

3. LLU charges

Figure 69 and Figure 70 below compare the one-off connection charges and monthly rental prices for full and shared LLU access in the three monitored countries and the EU-27 averages according to the 14th Implementation report.

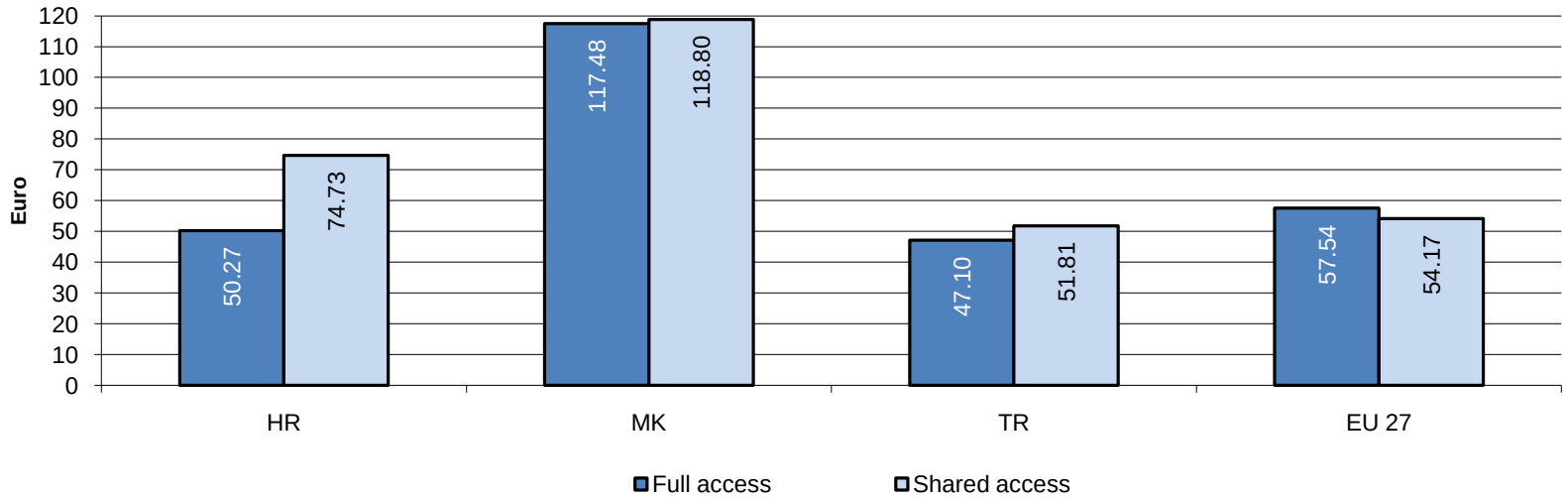


Figure 69 - Connection prices for fully unbundled loop and shared access

Notes:
FYROM: The connection prices as set per a block of 100 loops.

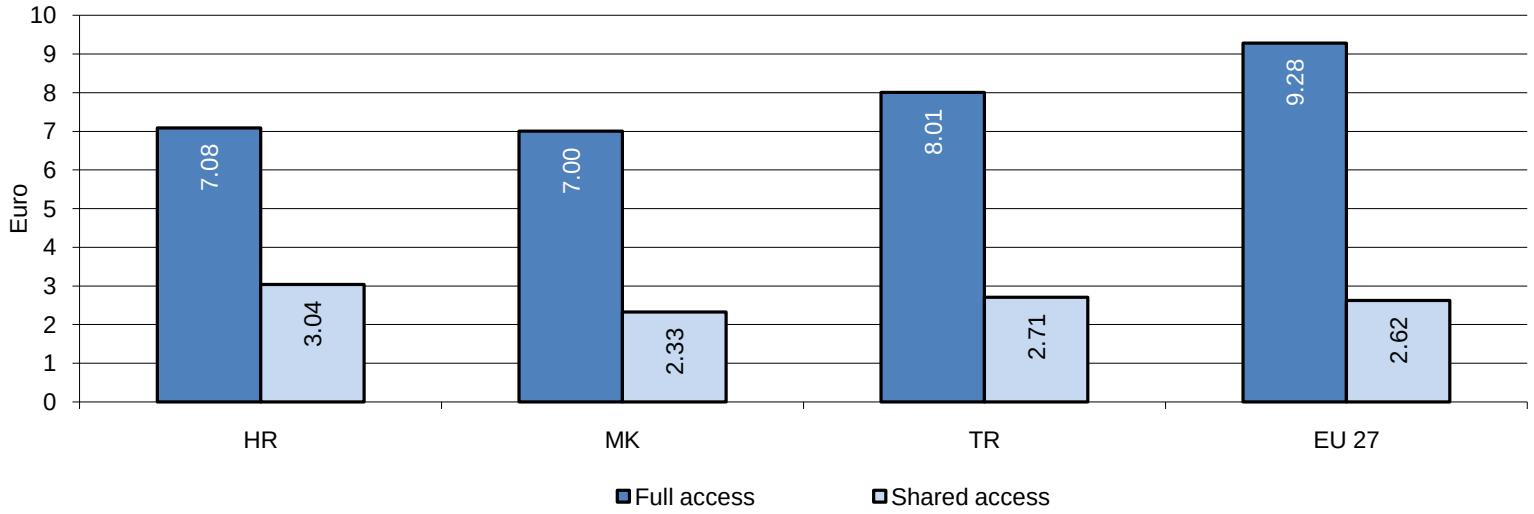


Figure 70 - Monthly rental prices for fully unbundled loop and shared access

N. Information society statistics

1. Computer and Internet usage by individuals

Table N.1 provides data on computer and Internet usage by individuals. The percentage of individuals regularly using the Internet is policy indicator A.2 of the *e*Europe 2005 benchmarking framework.

- population is defined as being from 16 to 74 years
- regularly is defined as at least weekly
- usage includes all locations and methods of access
- *e*Europe analyses used background variables of age, gender, employment status and education level
- i2010 benchmarking framework added bandwidth as a variable

Country	Percentage of individuals who used a computer in the last three months			Percentage of individuals regularly using the Internet			Comments (different data definition, date of survey)
	Total	Female	Male	Total	Female	Male	
Croatia	46	45	55	43	43	57	Survey first quarter 2008. Central Bureau of Statistics. http://www.dzs.hr/Eng/Publication/2008/2-1-9_1e2008.htm
FYROM	50.00	45.70	54.40	41.50	36.60	46.50	Survey of April 2008. Based on Eurostat definition (a person who used a computer/the Internet at least once per week in the last three months).
Turkey	34.3	25.6	43.2	28.6	21.0	36.2	Survey of April 2008 "Percentage of individuals regularly using the Internet (in the last three months)" were calculated by following the formula that is the share of the sum of (In last 3 months, I accessed the Internet, on average, every day or almost every day) and (In the last 3 months, I accessed the Internet, on average, at least once a week (but not every day)) in total population (aged 16 to 74).
Albania	N/A	N/A	N/A	[14.98]	N/A	N/A	The figure is not based on a survey asking for regular usage, but on the estimated number of Internet users in 2007 (471,200) in relation to the whole population. INSTAT conducted a survey during 2008, which includes the number of PCs and using Internet. The data of this survey is not published yet.
Bosnia & Herzegovina	[36,47]*	N/A	N/A	[34]**	N/A	N/A	* Estimate based on various sources (statistical institutes in BiH, studies of WB, UNDP and EC and some NGOs, i.e. BAIT, BHIST) ** estimate by RAK as of January 2009

Country	Percentage of individuals who used a computer in the last three months			Percentage of individuals regularly using the Internet			Comments (different data definition, date of survey)
	Total	Female	Male	Total	Female	Male	
Montenegro	57.5	53.5	61.8	40.7	36.9	44.7	Survey of Agency of electronic communications and postal services based on research of Centre for Monitoring (CEMI) in July 2008. The methodology is not comparable with Eurostat methodology.
Serbia	48.66	47.10	50.23	38.05	34.63	41.47	Survey of the Statistical Office in January and February 2008 (sample: 2000 individuals), see: http://webrzs.stat.gov.rs/axd/dokumenti/ict/2008/Naslovna/IKT2008s.zip
Kosovo	30	22	38	23	17	29	Estimation based on subscriber numbers of the main ISPs and surveys of the Riinvest Institute.

Table N.1 - Computer and Internet usage by individuals

2. Computer and Internet usage by enterprises

Table N.2 provides data on computer and Internet usage by enterprises, as collected by national statistics institutes and, where available, grouped by the size of the enterprises. Indicator B.1 of the *e*Europe 2005 benchmarking framework asks for the percentage of persons employed using computers connected to the Internet, in their normal work routine. However, these data are generally not collected in South-East Europe, Instead, the table includes:

- percentage of enterprises using computers;
- percentage of enterprises having access to the Internet (*e*Europe indicator B.2); and
- comments, in particular on the date of the survey and eventually different data definitions.

Country	Percentage of enterprises using computers (by number of employees)				Percentage of enterprises having access to the Internet (by number of employees)				Comments (different data definition, date of survey)
	Total (10+)	10-49	50-249	250+	Total (10+)	10-49	50-249	250+	
Croatia	98.0	98.0	99.0	99.0	97.0	97.0	99.0	98.0	Survey first quarter 2008. Central Bureau of Statistics. http://www.dzs.hr/Eng/Publication/2008/2-1-8_1e2008.htm
FYROM	93.5	92.3	97.4	100.0	83.4	81.1	89.6	98.0	Survey of December 2008
Turkey	90.6	89.3	95.3	98.4	89.2	87.5	95.0	98.1	Survey of April 2008
Albania	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A survey conducted by IDRA in 2008, found 87% of the 300 companies in the sample as having access to the Internet. INSTAT is planning to include such indicators in its periodic surveys of enterprises.

Country	Percentage of enterprises using computers (by number of employees)				Percentage of enterprises having access to the Internet (by number of employees)				Comments (different data definition, date of survey)
	Total (10+)	10-49	50-249	250+	Total (10+)	10-49	50-249	250+	
Bosnia & Herzegovina	[85]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Estimation based on several sources.
Montenegro	92.9	N/A	N/A	N/A	90.5	N/A	N/A	N/A	Data are based on ISSP ICT Survey, December 2007. No newer data available.
Serbia	98.6	96.9	98.9	100.0	94.27	89.9	96.1	96.8	Survey of the Statistical Office in January and February 2008 (sample: 1096 enterprises), see: http://webrzs.stat.gov.rs/axd/dokumenti/ict/2008/Naslovna/IKT2008s.zip
Kosovo	87.4	86.0	95.6	99.0	78.1	77	92.3	98.3	Survey made by Riinvest, April 2008. No recent data available.

Table N.2 - Computer and Internet usage by enterprises

3. Body responsible for Information society statistics

Table N.3 shows the body, whether the national statistics institute or another organisation, that collects and publishes data on information society indicators. The indicators were defined in the Council Resolution of February 18, 2003 on the implementation of the *e*Europe 2005 Action Plan and further developed under the i2010 Benchmarking Framework, in particular on:

- supply and demand of e-government, e-learning and e-health services;
- buying and selling online; and
- ICT skills and Internet users' experience regarding ICT security.

Country	Responsible body for information society statistics	Short description of available statistical data, URL
Croatia	Central Bureau of Statistics http://www.dzs.hr/	Use of ICT in households and by individuals Use of ICT in enterprises Investments in ICT and research in enterprises
FYROM	State Statistical Office of the Republic of Macedonia http://www.stat.gov.mk/	Use of ICT in households and by individuals Use of ICT in the financial sector Use of ICT in enterprises Use of ICT in the public sector http://www.stat.gov.mk/english/soopstenija_eng.asp?name=14.04
Turkey	Turkish Statistical Institute (TURKSTAT) http://www.turkstat.gov.tr/	Use of information technologies in households (computer and Internet usage by gender and age group, by education level and by labour force status, also separately for rural and urban areas) Use of information technologies in enterprises (computer usage and Internet access

Country	Responsible body for information society statistics	Short description of available statistical data, URL
		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) http://www.turkstat.gov.tr/VeriBilgi.do?tb_id=60&ust_id=2
Albania	Institute of Statistics (INSTAT) http://www.instat.gov.al/	No information society statistics available INSTAT conducted a survey use of ICT by individuals in 2008 (not published yet) and is planning to include use of ICT in its periodic surveys of enterprises. AKEP and MPPTT have some market data of the electronic communications markets.
Bosnia & Herzegovina	No dedicated public authority	No information society statistics available See comment below
Montenegro	Ministry for Information Society http://www.mid.gov.me/	The Ministry has been established recently. Information society statistics will be a task of the Department of promotion of Information Society.
Serbia	Statistical Office of the Republic of Serbia http://webrzs.stat.gov.rs/axd/index.php	Use of information technologies in households (computer and Internet usage by gender and age group, by education level and by labour force status, also separately for rural and urban areas) Use of information technologies in enterprises (computer usage and Internet access 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) http://webrzs.stat.gov.rs/axd/dokumenti/ict/2008/Naslovna/IKT2008s.zip
Kosovo	Telecommunication Regulatory Authority (TRA) http://www.art-ks.org/ Statistical Office of Kosovo http://www.ks-gov.net/esk/	No information society statistics available

Table N.3 - Body responsible for Information society statistics

Notes:
Bosnia & Herzegovina: According to strategic documents for the development of the information society of BiH (Policy for Development of the Information Society of BiH, Strategy for Development of the Information Society of BiH and Action Plan for Development of the Information Society of BiH), the responsible body for information society statistics shall be the Agency for Development of the Information Society of BiH (ARID). The law on ARID has not been adopted and ARID has not been established yet. The statistical institutes will be in charge for data collection, ARID will be focal point to distribute and follow up the final reports.

O. Network and information security

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

- the regulatory framework on electronic communications requires providers of publicly available electronic communications services to safeguard the security of their services and addresses specific questions such as spam and cookies (Directive on Privacy and Electronic Communications);

- the fight against cybercrime, through the adoption of a framework decision (which echoes the Council of Europe Convention on Cybercrime) and initiatives specifically aimed at protecting minors; and
- specific network and information security measures.

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

1. Network security obligations

Table O.1 shows the:

- legal provisions obliging providers to safeguard the security of their services (see Article 4, Privacy Directive);
- the classes of providers obliged by these provisions (publicly available electronic communications services – PECS, publicly available telephone services – PATS or other definition); and
- the national body or bodies responsible for supervision (for example the NRA, the data protection authority, a body responsible for disaster prevention, a body responsible for network security or several of such bodies).

Country	Legal provisions on security of electronic communications services	Scope of obliged providers	Body/bodies responsible for supervision
Croatia	Art. 99 Electronic communications act	Providers of public communications services	NRA
FYROM	Art. 110 Law on electronic communications Law on personal data protection	Operators of public communications networks and service providers of communications services	NRA is responsible for technical measures. Data privacy protection for end consumers is a responsibility of the Directorate for personal data protection.
Turkey	Art. 51 Electronic communications law	All operators	NRA
	Art. 6 and 7 Bylaw on personal information processing and protection of privacy in the telecommunications sector	Providers of telecommunications services for profit	NRA
	Bylaw on security of electronic communications	Equity companies which provide electronic communications networks and/or services	NRA
Albania	Art. 122 Law on electronic communications	Providers of public electronic communications networks and services	NRA
Bosnia & Herzegovina	Art. 5 Law on communications	Providers of public telecommunications services and networks	NRA
Montenegro	Art. 112 Law on electronic communications	Providers of public communications networks and services	NRA
Serbia	Art. 54 Telecommunications law	Public telecommunications operators	NRA

Country	Legal provisions on security of electronic communications services	Scope of obliged providers	Body/bodies responsible for supervision
Kosovo	Art. 43 Law on telecommunications	Providers of public telecommunications services	NRA

Table O.1 - Network security obligations

Notes:
Turkey: Art. 51 of the Electronic communications law entitles the authority to determine the procedures and principles for processing of personal data. See also Art. 12(2)(j) of that law. Art. 6 of the Bylaw on personal information processing obliges all operators (that is, providers of telecommunications services for profit) to have their technical and organisational measures of network security approved by the NRA. Art. 7 of this bylaw transposes art. 4 para. 2 of the Privacy Directive. The Bylaw on security of electronic communications came into force on July 20, 2008. It obliges equity companies which provide electronic communications networks and/or services to ensure the security of communication and to perform internal audits. The bylaw has been prepared considering ITU Recommendation X.1051 and the standard ISO/IEC 27001.

2. Cybercrime

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

- Council Framework Decision of February 24, 2005 on attacks against information systems that provides that committing, commissioning, attempting, instigating or abetting the following acts, intentionally and unlawfully, is a criminal offence:
  - accessing the whole or part of an information system (i.e. 'hacking');
  - interfering with an information system (such as the sending of viruses or 'denial of service attacks') seriously to interrupt or hinder its functioning;
  - interfering with computer data (e.g., alteration, deletion or damaging of data) on an information system (even in the absence of damage to a person).

  NB. This framework decision echoes the Council of Europe Convention on Cybercrime, which also covers other computer-related offences and some traditional offences that take place over networks as well as procedural measures and measures on international cooperation.
- other more specific regulatory initiatives, in particular to fight sexual exploitation of children and child pornography including through computer systems (Framework Decision 2004/68), and to fight fraud and counterfeiting of non-cash means of payment (Framework Decision 2001/413).
- policy initiatives, for example, to address new forms of cybercrime (e.g., identity theft) and improve cross-border enforcement cooperation.

Table O.2 shows:

- whether the country has ratified and transposed into national legislation the Council of Europe Convention on Cybercrime;
- whether national legislation considers attacks against information systems as criminal offences;
- whether national legislation considers other computer related acts as criminal offences; and
- the policy framework on the fight against cybercrime, and the main lines of that policy.

Country	Ratification of Council of Europe Convention on Cybercrime	Are the following attacks against information systems considered as criminal offences? Illegal access? Illegal interception? Data interference? System interference?	Are the following computer-related acts considered criminal offences? Computer-related forgery? Computer-related fraud? Offences related to child pornography? Offences related to infringements of copyright and related rights	Policy framework on the fight against cybercrime
Croatia	Yes, on July 8, 2002 (Official Gazette 9/2002) Ratification of the Protocol to the Convention on cyber crime concerning the criminalization of acts of racist and xenophobic nature committed through computer systems on May 9, 2008 (Official Gazette 4/2008)	Yes, in the Criminal Code: • illegal access and interception (art. 223 para. 1) • systems interference (art. 223 para. 2) • data interference (art. 223 para. 3)	Yes, in the Criminal Code: • child pornography (art. 196) • computer forgery (art. 223a) • computer fraud (art. 224a) • the provisions on copyright do not explicitly refer to computer related acts but include all forms of communicating works to the public (art. 229ff).	No explicit policy framework
FYROM	Yes, on June 16, 2004 Ratification of the Protocol to the Convention on cyber crime concerning the criminalization of acts of racist and xenophobic nature committed through computer systems on July 5, 2005	Yes The Criminal Code considers as criminal offences: • illegal access to computer resources, • unauthorised use of computer data, • illegal use and multiplication of computer data, • illegal manipulation with computer data, • changing, damaging of data or programs, • introduction of viruses, • abuse of passwords.	• Computer fraud (Article 251b) • Issuance of a bad cheque and abuse of credit cards (Article 274) • Violation of copyright and similar rights (Article 157) • Violation of the right of the distributor of a satellite signal with special protection (Article 157a) • Piracy of audio and visual work (Article 157b) • Piracy of a phonogram (Article 157c) • Production and distribution of child's pornography through a computer system (Article 193a).	No explicit policy framework
Turkey	No	Yes, in the Criminal Code: • illegal access and interception (art. 243 para. 1, Art. 132) • system interference (art. 244 para. 1) • data interference (art. 244 para. 2)	Yes, in the Criminal Code: • child pornography (art. 226 para. 3 to 5) • computer forgery (art. 244 para. 2) NB This provision does not explicitly refer to computer forgery but include sall forms of offence (art. 204, 208)	The Information Society Action Plan (2006–2010) includes an action on Internet security with the following direction: "Enactment of necessary regulations for a safe Internet environment in order to increase the motivation of individuals towards ICT usage. With these

Country	Ratification of Council of Europe Convention on Cybercrime	Are the following attacks against information systems considered as criminal offences? Illegal access? Illegal interception? Data interference? System interference?	Are the following computer-related acts considered criminal offences? Computer-related forgery? Computer-related fraud? Offences related to child pornography? Offences related to infringements of copyright and related rights	Policy framework on the fight against cybercrime
			• computer fraud (art. 158 para. 1-f) The provisions in art. 71 to 75 of the Law on intellectual and artistic Works do not explicitly refer to computer related acts but include all forms of communicating works to the public.	regulations as well as training and awareness raising activities mental and physical healthcare of children, personal rights, family values and public order will be sustained." Also, the Turkish national "Strategy Document for the Fight Against Organised Crime" (October 2006) includes the main principles dealing with all types of organised crime in Turkey such as Cybercrime (section 3.7). There is also an ongoing study for preparing an action plan in line with the strategy document. See also the comment below.
Albania	Yes Law no. 8888 dated April 25, 2002	Yes, in the Criminal Code: • Unauthorised access (art. 192/b) • Illegal interception of computer data (art. 293/a) • Data interference (art. 293/b) • System interference (art. 293/c) • Misuse of computer devices (art. 293/ç)	Yes, in the Criminal Code: • Child pornography (art. 117) • Computer fraud (art. 143/b) • Computer forgery (art. 186/a) • Stealing works of art or culture (art. 138)	On January 9, 2008 the Government approved a sector strategy of public order, with the following main items on cybercrime: • to establish a special organisational unit to deal with cybercrime; • to recruit officers with special knowledge on the field; and • to improve the legislation in the field of cyber crime.
Bosnia & Herzegovina	Yes, in 2006	No provisions in the Criminal Code	No provisions in the Criminal Code	No explicit policy framework
Montenegro	Not ratified	Yes, in the Criminal Code: • data interference (art. 349) • computer sabotage (art. 350) • distribution of viruses (art. 351) • unauthorised use (art. 353) • disturbing electronic processing (art. 354)	Yes, in the Criminal Code: • criminal offences against copyright (art. 234) • computer fraud (art. 352) • electronic distribution of child pornography covered by art. 211	No explicit policy framework

Country	Ratification of Council of Europe Convention on Cybercrime	Are the following attacks against information systems considered as criminal offences? Illegal access? Illegal interception? Data interference? System interference?	Are the following computer-related acts considered criminal offences? Computer-related forgery? Computer-related fraud? Offences related to child pornography? Offences related to infringements of copyright and related rights	Policy framework on the fight against cybercrime
		• illegal access (art. 355) • preventing access to networks (art. 356)		
Serbia	Yes, in April 2009	Yes, in the Criminal Code: • damaging computer data and programs (art. 298) • computer sabotage (art. 299) • creating and introducing computer viruses (art. 300) • unauthorised access (art. 302) • preventing or restricting access to a public computer network (art. 303) • unauthorised use of a computer (art. 304)	Yes, in the Criminal Code: • computer fraud (art. 301) • child pornography (art. 185) • criminal offences against intellectual property (art. 198 to 202)	Law on organisation and competences of public authorities for fighting high technology crime (Official gazette of the Republic of Serbia, no. 61/05)
Kosovo	No, ratification is currently in first reading in Parliament	Yes • Intrusion into computer systems, data interference (Article 264, Criminal Code) • Illegal access to information systems (Article 98, Law on information society services) • Illegal interference with information systems (Article 99, Law on information society services)	Child pornography will be addressed by a new law (Article 16, Draft law on prevention and fight of the cyber crime, June 2008) – see comment below	No explicit policy framework

Table O.2 - National measures to fight against cybercrime

Notes:

Turkey: Turkey introduced provisions against cybercrime in its Criminal Code by law 5237 of 2005. A separate law of 2007 (Law no. 5651 on regulating broadcast in Internet and combating crimes committed through such broadcast) introduced provisions on liability of content providers, host providers and access providers. According to law no. 5651 a court or the NRA can oblige providers to block access when the content of Internet broadcasts constitutes one of nine catalogue criminal offences.

Albania: Amendments to the Criminal Code related to cybercrime were approved by Parliament on November 27, 2008 (law no. 10023).

Kosovo: The draft law passed all government procedures. Kosovo asked the Council of Europe to organise a joint workshop with representatives of the government to finalise the draft before submitting it to the Parliament.

3. Bodies in charge for security policy

Table O.3 shows:

- the body (or bodies) responsible for network and information security policy, in particular for 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;
- a short description of the body's responsibilities; and
- references to relevant policy documents, websites promoting security awareness or alert networks.

The table only list bodies that are responsible for policy making and for the network and information security in general (that is including commercial and private users). It does not include bodies that are solely responsible for governmental networks or solely responsible for the security of information exchange between governmental bodies.

Country	Body/bodies responsible for network and information security policy	Description of responsibilities	Policy documents, websites, alert networks
Croatia	Office of the Council on National Security (UVNS)	• UVNS is the Croatian National Security Authority (NSA) • Coordinates and harmonises the adoption and controls the implementation of information security measures and standards in the areas of Security Vetting, Physical Security, Security of Information, INFOSEC and Industrial Security (Croatian DSA) and issues clearances for individuals and legal entities for access to national, NATO and EU Classified Information. • As Croatian NSA, UVNS carries out and coordinates international cooperation in the field of information security and based on the Government Decision concludes international security agreements for the protection of Classified Information on behalf of the Republic of Croatia.	http://www.uvns.hr/ • Instruction on information security measures and standards for the registry system (August 2008, UVNS, Unclassified) • Instruction on the procedure of determining security impediments and risks and for the issuance of PSC and FSC (November 2008, UVNS, Unclassified) • Instruction on security education on information security measures and standards (December 2008, UVNS, Unclassified) • Instruction on registry system security accreditation (February 2009, UVNS, Unclassified) • Instruction on the form and content of NATO and EU Certificate (April 2009, UVNS, Unclassified)
	Institute for Information Systems Security (ZSIS) ZSIS CERT	• Central state body responsible for information security activities of state authorities • ZSIS CERT provides assistance to state bodies with regard to prevention of computer security risks and incident removal	http://www.zsis.hr/

Country	Body/bodies responsible for network and information security policy	Description of responsibilities	Policy documents, websites, alert networks
	CARNet CERT	• Provides assistance to the institutions connected to the Croatian Academic and Research Network for prevention and protection from computer threats	http://www.cert.hr/
	National CERT	• Coordinates the activities of ZSIS CERT and CARNet CERT and deals with massive incidents.	
FYROM	Ministry of Internal Affairs		

Turkey	TR-CERT	• Public information security awareness activities via national information security portal
		• Technical trainings on information security (for public officials)
		• Consultancy to state institutions for establishing Information Security Management System (ISMS)
		• Performing penetration tests for information technology systems of state institutions
		• Preparing the policy document of “minimum security requirements for government information and information systems” (in progress)
		• Preparing the policy document of “security categorisation for government information and information systems” (in progress)
		• Preparation of guidance documents on information security; prepared documents are hosted at www.bilgiguvenligi.gov.tr (in Turkish)
		• International cooperation:
		  • Participation to biannual NATO-CERT (NCIRC) CyberDefense Workshops
		  • Co-operation with NCIRC based on MoU (Memorandum of Understanding)
		  • Participation to international CERT meetings and conferences (FIRST, TF-CSIRT)
		  • Participation to biannual OECD-WPISP (Working Party on Information Security and Privacy) meetings
		• Designing and implementing the information security projects of state bodies (Government, Military)
		• Operating Turkish National CERT/CC (Coordination Center) (accredited by “Trusted Introducer for CSIRTs in Europe”)
			http://www.bilgiguvenligi.gov.tr/
			(National Information Security Portal)
			
			http://www.tr-cert.gov.tr/
			(National CERT Coordination Center)

Country	Body/bodies responsible for network and information security policy	Description of responsibilities	Policy documents, websites, alert networks
		• Incident response coordination • Computer Security incident response teams (CSIRT) support • Alarm and alerting services • Leading government bodies for establishing government CERT organizations (Consultancy, Training, Exercise)	
	Prime Ministry	Coordinates activities in developing policy principles regarding cyber security	The policy principles document is prepared by a working group and submitted to the Prime Ministry for approval
	Ministry of Justice	Prepares a law regarding information security	2009 annual programme, information society strategy
Albania	No dedicated body responsible. See comment below.		
Bosnia & Herzegovina	No dedicated body responsible		
Montenegro	Ministry for Information Society	Governmental body responsible for information security	Programme of information security, adopted in May 2008
Serbia	No dedicated body responsible		Strategy for telecommunications development 2006–2010 (item 6.9) Strategy on information society development in Serbia
Kosovo	The NRA and the Ministry of Transport and Communications for public and telecommunications networks Ministry of Public Services for governmental networks	• Prepare policy documents for the government • Collect data on information security • Public awareness activities • Coordinate information security projects of state institutions	

Table O.3 - Bodies responsible for network and information security policy

Notes:
Albania: Albania has two directorates that are responsible for network and information security policy, but only for governmental networks.

P. Electronic commerce and electronic signatures

1. Market access and liability

Table P.1 shows whether certain provisions of the Electronic Commerce Directive (2000/31/EC) have been transposed.

- According to Art. 4 of the E-Commerce Directive 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.
- Art. 12 to 14 of the E-Commerce Directive exempt certain activities of Internet service providers ('mere conduit', caching and hosting) from criminal and civil liability under certain conditions.
- According to art. 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.

Country	Does a law explicitly state that information society services do not need prior authorisation?	Have the provisions on liability of intermediary service providers been transposed into national law?			
		'mere conduit' Art. 12 E-Commerce Directive	'caching' Art. 13 E-Commerce Directive	hosting Art. 14 E-Commerce Directive	no general obligation to monitor Art. 15 E-Commerce Directive
Croatia	Yes Art. 5 Electronic commerce act	Yes Art. 16, 20 Electronic commerce act	Yes Art. 17, 20 Electronic commerce act	Yes Art. 18, 20 Electronic commerce act	Yes Art. 21 Electronic commerce act
FYROM	Yes Art. 6 Law on electronic commerce	Yes Art. 15 Law on electronic commerce	Yes Art. 16 Law on electronic commerce	Yes Art. 17 Law on electronic commerce	Yes Art. 20 Law on electronic commerce
Turkey	No	No	No	Art. 5 of law no. 5651 contains a similar provision, but not as a transposition of the Electronic Commerce Directive	Art. 5 of law no. 5651 contains a similar provision, but not as a transposition of the Electronic Commerce Directive
Albania	Yes Law on electronic commerce	Yes Law on electronic commerce	Yes Law on electronic commerce	Yes Law on electronic commerce	Yes Law on electronic commerce
Bosnia & Herzegovina	Yes Art. 14 E-Commerce law	Yes Art. 24 E-Commerce law	Yes Art. 25 E-Commerce law	Yes Art. 26 E-Commerce law	Yes Art. 28 E-Commerce law
Montenegro	Yes Art. 6 Law on electronic commerce	Yes Art. 18 Law on electronic commerce	Yes Art. 19 Law on electronic commerce	Yes Art. 20 Law on electronic commerce	Yes Art. 22 Law on electronic commerce
Serbia	No	No	No	No	No
Kosovo	Yes Art. 17 Law on the information society services	Yes Art. 24 Law on the information society services	Yes Art. 25 Law on the information society services	Yes Art. 26 Law on the information society services	Yes Art. 27 Law on the information society services

Table P.1 - Market access and liability

Notes:

Turkey: Works are underway regarding the alignment with the Electronic Commerce Directive under the responsibility of Ministry of Justice. In 2007, the "law no. 5651 on regulating broadcast in Internet and combating crimes committed through such broadcast" introduced provisions on liability of content providers, host providers and access providers. Law no. 5651 is not a transposition of the Electronic Commerce Directive, but the provision on liability of hosting providers is similar.

Albania: The law no. 10128 on electronic commerce was adopted by the Assembly on May 11, 2009. It has not been published in the official gazette by the cut-off date for this report. The law will come into force 15 days after publication. According to the draft law the articles relevant for this table are articles 6, 15, 16, 17 and 20. The draft law was prepared by a working group lead by the Ministry of Economy, Trade and Energy in collaboration with an expert team working with NAIS under a legal advice technical assistance project financed by EU.

Serbia: The Government has adopted the draft Law on electronic commerce and sent it to the National Parliament. Responsible institution is the Ministry of Trade and Services. The draft Law on electronic commerce is waiting for approval by the National Parliament.

2. Legal recognition of electronic contracts and electronic signatures

Table P.2 shows whether the legislation in South-East Europe has been adapted to recognise the conclusion of electronic contracts and whether electronic signatures are legally recognised. These questions are important pre-conditions to ensure the take-up of electronic commerce.

The Electronic Commerce Directive (2000/31/EC) requires Member States to remove any legal obstacles for the use of electronic contracts. This means that a contract cannot be deprived of legal validity on the ground that it has been made by electronic means. The table shows whether this general principle is recognised in the legal system. Art. 9 of the directive lists categories of contracts which would not automatically be legally valid and whose electronic conclusion could be restricted (such as contracts on real estate or contracts governed by family law). The table does not include details to what extent the countries made use of these exceptions.

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' (referred to in the table as 'qualified electronic signatures'). The technical requirements of qualified electronic signatures are specified in the three annexes of the directive. They are based on public key cryptography, involving the intervention of 'certification service providers'.

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

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

Country	Are there any regulatory obstacles to the conclusion of electronic contracts (if yes, specify type of problem)?	Are ordinary electronic signatures denied legal effect or refused as evidence in courts?	Are qualified electronic signatures recognised as equivalent to hand-written signatures?
Croatia	No	No Art. 6 Electronic signature act	Yes Art. 5 Electronic signature act
FYROM	No	No Art. 12 of Law on data in electronic form and electronic signatures	Yes Art. 13 of Law on data in electronic form and electronic signatures

Country	Are there any regulatory obstacles to the conclusion of electronic contracts (if yes, specify type of problem)?	Are ordinary electronic signatures denied legal effect or refused as evidence in courts?	Are qualified electronic signatures recognised as equivalent to hand-written signatures?
Turkey	No	No The legal effect of ordinary electronic signatures is not explicitly regulated in the electronic signature law. Ordinary electronic signatures have legal effectiveness under the discretion of the judge according to art. 240, 287 and 367 of the Code of civil procedure.	Yes Art. 5 Electronic signature law Art. 295/A Code of civil procedure
Albania	No	No	Yes Art. 4 Law no. 9880 on electronic signature.
Bosnia & Herzegovina	No	No	Yes Art. 5 Law of electronic signature
Montenegro	No	No	Yes Art. 7 Law on electronic signature
Serbia	No	No	Yes Art. 10 Law on electronic signature
Kosovo	No	No	Yes Art. 86 Law on the information society services

Table P.2 - Legal recognition of electronic contracts and 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.

Table P.3 shows whether prior authorisation, a voluntary accreditation scheme and/or supervision have been established and which institutions are responsible.

Country	Are providers required to notify? Is prior authorisation required?	Voluntary accreditation scheme established?	Supervision established?
Croatia	Certification-service providers must notify to the ministry at least 8 days in advance. No prior authorisation required. Art. 13, 15 and 16 Electronic signature act	Yes Art. 34a to 34d Electronic signature act Croatian Accreditation Agency	Yes Ministry of the Economy, Labour and Entrepreneurship and State Inspectors' Office
FYROM	Certification-service provider is obligated to register its activity with the Ministry of Finance in the register of CAs at least 30 days prior beginning of its operation. In practice, prior authorisation required by secondary legislation on the registration process: Providers must be registered in the register of CAs before starting provision of certification services. Art. 16 Law on data in electronic form and electronic signatures	No	Yes Ministry of Finance http://www.finance.gov.mk/
Turkey	Providers of qualified certificates must notify to the NRA two months in advance. No prior authorisation required. Art. 8 Electronic signature law	No	Yes Information and Communication Technologies Authority Art. 15 Electronic signature law
Albania	Certification-service providers must notify to the authority immediately at the beginning of their activities. No prior authorisation required. Art. 11 Law on electronic signature	No	Yes According to art. 10 of the Law on electronic signature, the national authority of electronic signature is depending on the Ministry of the Interior. The authority's chairman has been nominated, its structure is approved and its staff partly hired.
Bosnia & Herzegovina	Certification-service providers must notify to the supervision body immediately at the beginning of their activities. No prior authorisation required. Art. 7 Law on electronic signature	No	No According to art. 20 Law on electronic signature the office for accreditations and supervision (supervision body) shall be established in the Ministry of Communications and Transport.
Montenegro	Providers of non-qualified certificates must notify to the supervision body at least 8 days in advance. No prior authorisation required. Providers of qualified certificates must apply for registration. The supervision body must issue its decision within 15 days after the date on which a complete request is submitted. Art. 18, 19 and 22 Law on electronic signature	No	Yes Ministry of Information Society http://www.mid.gov.me/
Serbia	Providers of qualified certificates must notify to the Ministry of Telecommunication and Information Society 15 days in advance. Prior authorisation required for providers of qualified electronic signatures. Art. 15 Law on electronic signature	No	Yes Ministry of Telecommunication and Information Society http://www.mtid.gov.rs/

Country	Are providers required to notify? Is prior authorisation required?	Voluntary accreditation scheme established?	Supervision established?
Kosovo	No obligation to notify under the chapter on electronic signatures in the Law on the information society services. No prior authorisation required.	No	No The chapter on electronic signatures in the Law on the information society services does not foresee a supervisory authority.

Table P.3 - Market access for providers of certification services

Notes:
FYROM The Ministry of Finance considers amending the secondary legislation on the registration process, which currently requires providers to become registered before starting offering their services.
Montenegro: The government of Montenegro plans to prepare in 2009 amendments to the Law on electronic signature.

4. Electronic signature market data

Table P.4 shows:

- certification service providers, which issue qualified certificates in the respective country;

  NB. The table shows certification service providers, which are established in the respective country, as well as certification service providers, which are established in another country, but are active on the respective national market, for example by establishing a network of registration services, or by gaining a voluntary accreditation.

- available market data on usage of electronic signatures, in particular: number of valid qualified certificates.

Country	Certification service provider(s) issuing qualified certificates Name(s) and URL(s)	Data on usage of electronic signatures
Croatia	Financial agency (Fina) http://www.fina.hr/	19,844 qualified electronic certificates
FYROM	KIBS AD Skopje http://ca.kibs.com.mk/ Makedonski Telekom http://ca.mt.net.mk/	No data available
Turkey	E – Güven Corp. http://www.e-guven.com/ TUBITAK UEKAE (NRIEC) http://www.kamusm.gov.tr/ TurkTrust Corp. http://www.turktrust.com.tr/ E – Tuğra Corp. http://www.e-tugra.com.tr/	December 2008: 44,777 traditional qualified electronic certificates 66,026 mobile qualified electronic certificates
Albania	No such providers. A national certificate authority is being established.	Not applicable
Bosnia & Herzegovina	No such providers	Not applicable

Country	Certification service provider(s) issuing qualified certificates Name(s) and URL(s)	Data on usage of electronic signatures
Montenegro	No such providers	e-Mon (http://www.emon24.net/) issues non-qualified certificates that are used like qualified certificates, but only in closed systems of e-banking 3,250 certificates in use for e-banking.
Serbia	CA JP PTT Communications "Srbija", http://www.ca.posta.rs/	PTT started issuing qualified certificates on December 15, 2008 Many banks offer e-banking services based on non-qualified certificates. In total, about 350,000 non-qualified certificates have been used.
Kosovo	No such providers	Not applicable

Table P.4 - Market data on electronic signatures

Q. Data protection and data retention

1. Protection of confidentiality of communications

According to Article 5 of the Privacy Directive, 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.

Table Q.1 shows:

- legal provisions for the protection of confidentiality of communications;
- the scope of the protected communications: content of the communications and/or related traffic and location data;
- whether the provisions only refer to interception by an operator and its staff or also to interception by third parties;
- which penalties are prescribed by the provision; and is interception considered a criminal offence, a misdemeanour or can intercepted persons only enforce the provision by a lawsuit under civil law.

Country	Legal provisions on confidentiality	Scope of protected communications: content and/or traffic data	Protection against interception by operator and/or interception by third parties	Penalties
Croatia	Art. 100 Electronic communications act	All data in telecommunication traffic	Interception by operator and interception by third parties	Misdemeanour (article 119) The head of the legal entity will be fined with an amount from 20,000 to 100,000 HRK (€2,717 to €13,587). The person who broke the law will be fined with an amount from 10,000 to 50,000 HRK (€1,359 to €6,793).

Country	Legal provisions on confidentiality	Scope of protected communications: content and/or traffic data	Protection against interception by operator and/or interception by third parties	Penalties
				It is possible to penalise the legal entity with the protective measure of prohibiting practice for 3 months to one year and for the person or responsible person in the legal entity the same measure for one to six months.
	Art. 131 Criminal Code	All data in telecommunication traffic	Interception by anyone	Criminal offence The penalty can vary between a monetary fine and one year in prison. If the offence is done during performing official duties, the offender can be penalised with a sentence between one year and three years in prison.
FYROM	Art. 111 Law on electronic communications	• Content of communications • Traffic data and location data relating to communications • Unsuccessful attempts to establish a connection.	Interception by operator	Misdemeanour fines (Law on electronic communications): A fine in the amount of • 7 to 10% for the legal entity which undertakes surveillance, tapping, interruption, recording, storage and diverting of communications and data in instances forbidden by the law; or • 4 to 7% for the legal entity which fails to protect the confidentiality of electronic communications of the total annual revenue acquired during the commercial year prior the year when the misdemeanour was performed or of the total revenue acquired for a shorter period of the year preceding the misdemeanour.
	Art. 151 Criminal Code	This provision does not explicitly refer to communications data, it applies to everyone who taps or records *on audio* a conversation or statement that was not intended for him.	Interception by anyone	Criminal offence Imprisonment up to one year or a pecuniary fine Imprisonment up to three years, if the crime was committed by an official while performing his duty
Turkey	Art. 132, 135, 136 Turkish Criminal Code	• Content of communications • Traffic data and location data relating to communications	Interception by operator and interception by third parties	Criminal offence • Imprisonment from 6 months to 2 years (Art. 132) • Imprisonment from 6 months to 3 years (Art. 135) • Imprisonment from 1 year to 4 years (Art. 136) No penalty provided in the bylaw.

Country	Legal provisions on confidentiality	Scope of protected communications: content and/or traffic data	Protection against interception by operator and/or interception by third parties	Penalties
	Art. 6 Law on regulating broadcast in Internet and combating crimes committed through such broadcast	Traffic data	Interception by operator and interception by third parties	Misdemeanour: 10,000 to 50,000 TRY (€4,717 to €23,585)
	Art. 8 Bylaw on personal information processing and protection of privacy in the telecommunications sector	Content data and traffic data	Interception by operator and interception by third parties	No penalty provided in the bylaw See comment below
Albania	Art. 123 Law on electronic communications	Content data and traffic data	Interception by operator and interception by third parties	Misdemeanour with a fine from 7% to 10% of annual revenue
Bosnia & Herzegovina	No explicit legislation, but operators and service providers ensure confidentiality (content data and traffic data) according to their licences.			
Montenegro	Art. 119 Law on electronic communications	• Content of communications • Data of user • Traffic data and location data relating to communications • Unsuccessful attempts to establish a connection	Interception by operator and interception by third parties	Misdemeanour, with a fine from the tenfold to the 250-fold of the minimal income in the country Art. 131, premise 1, point 38 Law on electronic communications
Serbia	Art. 54 and 55 Telecommunications law	Content data and traffic data	Interception by operator and interception by third parties	Misdemeanour, with a fine of at least 60,000 RSD (€677) Art. 97 Telecommunications law
	Art. 142, 143, 144, 146 Criminal Code	Content data and traffic data	Interception by operator and interception by third parties	Criminal offence Imprisonment of three months to five years or pecuniary fine
Kosovo	Art. 74 Law on telecommunications	Content data and traffic data	Interception by operator and interception by third parties	Misdemeanour TRA may impose fines according to the general provision in art. 15 Law on telecommunications. This provision does not specify the amount.
	Art. 74 and 98 Law on the information society services	Content data and traffic data	Interception by operator and interception by third parties	Criminal offence, imprisonment of a maximum of no less than one year in serious cases. Serious cases are defined as excluding cases where the conduct resulted in no damage or economic benefit. Art. 101 Law on the information society services

Table Q.1 - Protection of confidentiality of communications

Notes:
Turkey: This bylaw is being reviewed. According to the draft of the new bylaw a fine in the amount of up to 3% of the total annual revenue acquired during the commercial year prior to the current year is foreseen.

2. Traffic and location data

According to Article 6 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. Some countries transpose this provision by defining a certain period of time (which is typically the same for all operators and subscribers), some refer 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).

NB. See the separate table on data retention below. Data retention means that operators are obliged to retain traffic data for the purpose of lawful interception, for a longer period than needed by the operator for its own purposes, in particular billing. This table does not cover lawful interception or data retention. It only refers to legal provisions that specify the period for which the operator can store and use the date for its own purposes.

Article 6 para. 3 Privacy Directive requires the subscriber's informed consent before providers can use traffic data for marketing their own services or for the provision of value added services.

Article 9 Privacy Directive contains provisions to protect location data, in particular that the usage of location data typically 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.

The table below shows:

- how the member state defines the maximum period for storage and processing of traffic data for purposes of the operator, e.g. billing (regardless of eventually longer periods defined in data retention legislation);
- whether informed consent is required before traffic data can be used for marketing purposes or for provision of value-added services;
- whether informed consent is required before location data can be used; and
- whether the user/subscriber can, even after giving consent, temporarily refuse the processing of location data.

Country	Traffic data		Location data	
	Maximum storage period	**Informed consent required for marketing?**	**Informed consent required?**	**Possibility to temporarily refuse?**
Croatia	As long as needed for billing (period of statute of limitation – 1 year) Art. 102 Electronic communications act	Yes	Yes Art. 104 Electronic communications act	Yes
FYROM	As long as needed for billing. Art. 112 Law on electronic communications	Yes	Yes Art. 114 Law on electronic communications	Yes

Country	Traffic data		Location data	
	Maximum storage period	**Informed consent required for marketing?**	**Informed consent required?**	**Possibility to temporarily refuse?**
Turkey	• 6 months – 2 years for Art. 6, Law no. 5651 on regulating broadcast in Internet and combating crimes committed through such broadcast (This storage period is obligatory for access providers) • 1 year – Draft bylaw on processing of personal data and protection of privacy in the telecommunications sector See comments below	Yes Art. 9 Bylaw on personal information processing and protection of privacy in the telecommunications sector	Yes Art. 9 Bylaw on personal information processing and protection of privacy in the telecommunications sector	Yes Art. 9 Bylaw on personal information processing and protection of privacy in the telecommunications sector
Albania	As long as needed for billing Art. 124 Law on electronic communications	Yes	Yes Art. 126 Law on electronic communications	Yes
Bosnia & Herzegovina	Not regulated	Not regulated	Not regulated	Not regulated
Montenegro	All personal data must be deleted or made anonymous after five years or as soon as it is no longer needed. Art. 121 Law on electronic communications	Yes	Yes Art. 123 Law on electronic communications	Yes
Serbia	As long as needed for billing. Art. 54 Telecommunications law	Not regulated	Yes	Yes
Kosovo	As long as needed for billing. Art. 75 and 76 Law on telecommunications Art. 75 Law on the information society services	Yes	Yes Art. 78 Law on the information society services	Yes

Table Q.2 - Processing of traffic and location data

Notes:

Turkey: Access provider is the natural or legal person that provides access to the Internet to his users (Art. 2 Law no. 5651). The bylaw on personal information processing and protection of privacy in the telecommunications sector, as published in the official gazette on February 6, 2004 is currently in force. Works are underway to publish an amended version of the bylaw. The draft bylaw foresees 1 year as maximum storage period.

3. Data retention

According to the Privacy Directive, providers typically have to erase traffic data as soon as they do not need them any more for their legitimate purposes (in particular for billing, see the table above). However, Art. 15 (1) Privacy Directive establishes an exception to that principle and allows Member States to adopt legislation providing for the retention of data for a limited period where this constitutes a necessary, appropriate and proportionate measure in a democratic society to safeguard national security (i.e. State security), defence, public security, and the prevention, investigation, detection and prosecution of criminal offences or of unauthorised use of electronic communication systems.

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

The table below shows:

- the legal basis for an obligation to systematically retain traffic data;
- the types of data covered, in particular telephony data and/or Internet data (Internet access, Internet mail and/or Internet telephony);
- the retention periods (minimum and/or maximum); and
- who bears the costs of retaining data (in particular investments to set up a data retention system) and whether the operator has a right to being compensated.

Country	Legal basis for data retention obligations	Types of data covered (telephony data and/or Internet data)	Retention period (Min. or max.)	Who bears the costs? Right to compensation?
Croatia	Art. 109 and 110 Electronic Communications Act (these two articles will come into force on July 1, 2009)	Telephony data and Internet data	12 months	Operators bear the costs. No right to compensation.
FYROM	FYROM has data retention legislation, which does not however determine the types of data to be retained and the retention period. FYROM plans to change the legislation with the introduction of the types of data to be retained and the retention period in 2009.			
Turkey	No provisions on data retention in the legislation in force Draft bylaw on personal information processing and protection of privacy in the telecommunications sector (see comment below)	Draft bylaw: Telephony data and Internet data	Draft bylaw: 12 months	Draft bylaw: Operators bear the costs. No right to compensation.
Albania	Art. 101 Law on electronic communications	Telephony data Although art. 101 of the new law obliges all providers of public electronic communications networks and services, the list of retained data refers to telephony data; there is no specific requirement for Internet data.	Maximum 2 years	Operators bear the costs. No right to compensation.

Country	Legal basis for data retention obligations	Types of data covered (telephony data and/or Internet data)	Retention period (Min. or max.)	Who bears the costs? Right to compensation?
Bosnia & Herzegovina	Law on legal interception of communications	Telephony data and Internet data	Maximum 12 months	Operators bear the costs. No right to compensation.
Montenegro	Art. 126 Law on electronic communications	Telephony data and Internet data	Minimum 6 months Maximum 2 years	Operators bear the costs. No right to compensation.
Serbia	No primary legislation on data retention. Data retention will be regulated by the Law on electronic communications. RATEL adopted three documents on technical conditions for Internet networks, fixed telecommunications networks and mobile telecommunications networks. This secondary legislation obliges operators to install equipment and software that enables them to intercept and retain data, but does not specify the types of data to be retained and the retention period.			
Kosovo	No legal provisions on data retention			

Table Q.3 - Data retention obligations

Notes:
Turkey: The Bylaw on personal information processing and protection of privacy in the telecommunications sector, as published in the official gazette on February 6, 2004 is currently in force. Works are underway to publish an amended version of the bylaw in order to transpose the Data Retention Directive.

4. Spam

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

NB. In addition to other requirements, Art. 7 of the Electronic Commerce Directive states that when 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.

The table below shows whether spam is authorised or prohibited in the countries and whether there is a dedicated public authority to fight the phenomenon.

Country	Is spam prohibited or allowed?			Authority to fight spam
	To companies	To individuals	Legal basis	
Croatia	Prohibited	Prohibited	Art. 107 Electronic communications act	No dedicated public authority
FYROM	Prohibited	Prohibited	Art. 117 Law on electronic communications Art. 17 Law on personal data protection	No dedicated public authority Directorate for personal data protection is responsible for individuals (www.dzlp.mk) Agency for electronic communications for network operators and service providers (www.aec.mk)
Turkey	Prohibited	Prohibited	Art. 20 Bylaw on personal information processing and protection of privacy in the telecommunications sector	No dedicated public authority. TÜBİTAK-UEKAE (NRIEC) designs and implements awareness raising activities against security threats including spam. http://www.uekae.tubitak.gov.tr/ Turkish anti-spam organization (TASO) also fights against spam. http://www.spam.org.tr/

Country	Is spam prohibited or allowed?			Authority to fight spam
	To companies	To individuals	Legal basis	
Albania	Prohibited	Prohibited	Art. 128 Law on electronic communications	No dedicated public authority AKEP inspectors can prosecute infringements by misdemeanour proceedings
Bosnia & Herzegovina	No explicit legislation	No explicit legislation	No explicit legislation or regulation on spam	No dedicated public authority
Montenegro	Prohibited	Prohibited	Art. 124 of Law on electronic communications	No dedicated public authority
Serbia	Prohibited	Prohibited	Art. 9 Law on advertising	No dedicated public authority
Kosovo	Allowed, under conditions	Allowed, under conditions	Art. 19 and 20 Law on the information society services: 20.1. Unsolicited commercial communications by electronic mail are permitted provided however that such communications by a service provider need to be clearly identifiable and unambiguously as such According to article 20.2 service providers must respect opt-out registers	No dedicated public authority

Table Q.4 - Legal provisions on spam

Notes:
Turkey: Despite the fight against spam, there is not a direct provision in primary legislation about it. The provisions in the Electronic Commerce Directive regarding spam are also planned to be covered by the E-Commerce Law for which the works are underway.

5. Itemised billing

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

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

The table below shows:

- whether subscribers have the right to receive itemised bills;
- whether subscribers have the right to receive non-itemised bills;
- the applied methods for protection of privacy in itemised bills, e.g. anonymisation of last digits or that calls to toll-free numbers must not be included in the itemised bill;
- a reference to the relevant legislation.

Country	Right to receive itemised bills	Right to receive non-itemised bills	Methods for protection of privacy	Reference to the relevant legislation
Croatia	Yes	Yes	Calls to toll free numbers, including emergency numbers, must not be included in the itemised bill	Art. 44 Electronic communications act
FYROM	Yes Subscribers have the right to receive itemised bills which show the cumulative number of accounting units separately for local calls, national calls, international calls, calls to mobile networks, data transfer and other services. In practice, subscribers receive free fully itemised bills on request.	No	Calls to toll free numbers, including emergency numbers, must not be included in the itemised bill	Art. 101 Law on electronic communications
Turkey	Yes	Yes	No	Art. 5 Bylaw on the protection of consumer rights
Albania	Yes	No	Calls to toll free numbers, including emergency numbers, must not be included in the itemised bill	Art. 106 Law on electronic communications
Bosnia & Herzegovina	Yes	Yes	No	Licenses for public telecommunications operators and providers of telecommunications services
Montenegro	Yes The law does not oblige operators to show details for every call; it only requires operators to show the number of accounting units accumulated for local calls, intercity calls, international calls, calls to mobile networks, calls to value added services and data transfer and other additional services.	Yes	Calls to toll free numbers, including emergency numbers, must not be included in the itemised bill	Art. 113 Law on electronic communication
Serbia	Yes	Yes	No	Art. 92 Telecommunications law
Kosovo	Yes	Yes	No	Art. 71 Law on telecommunications and Art. 76 Law on the information society services

Table Q.5 - Itemised billing

R. Subscriber directories

Directory information and directory enquiry services constitute essential access tools for publicly available telephone services. Two types of activities can be distinguished:

- collecting directory information from different providers of publicly available telephone services, aggregating this information into a single database and maintaining this database;
- providing access to such aggregated directory information, in particular by printing directories and providing directory enquiry services which are accessible via phone or online.

The European legislation addresses directories in the Universal Service Directive and the Privacy Directive:

- The Universal Service Directive addresses directory access for end-users. According to Art. 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. These directories shall comprise all subscribers of publicly available telephone services. Art. 25 (1) Universal Service Directive gives all subscribers the right to have a directory entry.
- The Privacy Directive addresses subscribers' privacy interests. According to Art. 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.

1. Legislation on directories

The table below shows the legislation on subscribers' rights to be included or not included in directories:

- Are operators obliged to inform new subscribers about the purposes of the directory before including them into the directory, or are operators obliged to ask new subscribers whether they want to be included in the directory?
- Do subscribers have the right to be included in the directory, free of charge?
- Do subscribers have the right to be not included in the directory, free of charge?
- Does the scope of these provisions include all subscribers of publicly available telephone services (in particular: including mobile subscribers, pre-paid subscribers)?

Country	Obligation to inform or ask new subscribers Free of charge?	Right to be included? Free of charge?	Right to be not included? Free of charge?	Scope mobile subscribers? pre-paid subscribers?	Relevant legislation
Croatia	Yes, all subscribers must be informed before being included (free of charge)	Yes, all subscribers have the right to be included (free of charge)	Yes, all subscribers may request not to be included (free of charge)	All subscribers of publicly available telephone services (including mobile subscribers and pre-paid subscribers)	Art. 47 Electronic communications act
FYROM	Yes, all subscribers must be informed before being included (free of charge)	Yes, all subscribers have the right to be included (free of charge)	Yes, but not free of charge. Refusal to be included in a public directory, and verifying, altering or erasing personal data shall be charged on the basis of real costs.	All subscribers (including mobile subscribers and pre-paid subscribers)	Art. 34 and 119 Law on electronic communications
Turkey	Yes, all new subscribers must be asked whether they want to be included (free of charge).	Yes, all subscribers have the right to be included	Yes, all subscribers may request not to be included (free of charge)	All subscribers	Art.8 Bylaw on the protection of consumer rights Art.19 Bylaw on personal information processing and protection of privacy in the telecommunications sector
Albania	Yes, all subscribers must be informed before being included (free of charge)	Yes, all subscribers have the right to be included	Yes, but not free of charge. All subscribers have the right not to be included, based on real costs.	All telephony subscribers	Art. 104 and 130 Law on electronic communications
Bosnia & Herzegovina	No explicit obligation to inform subscribers or to ask new subscribers whether or not they want to be included.	Yes, all subscribers have the right to be included	Yes, all subscribers may request not to be included	All subscribers (including mobile subscribers and pre-paid subscribers)	Art. 9 Law on communications
Montenegro	Yes, all subscribers must be informed before being included (free of charge)	Yes, all subscribers have the right to be included (free of charge)	Yes, all subscribers may request not to be included (free of charge)	All subscribers	Art. 53 and 111 Law on electronic communications
Serbia	No explicit obligation in legislation. However the fixed incumbent asks when registering the subscriber for the first time whether the subscriber wants to be included.	Yes, all subscribers have the right to be included (free of charge)	Yes, all subscribers may request not to be included (free of charge).	Fixed subscribers only	No relevant legislation

Country	Obligation to inform or ask new subscribers Free of charge?	Right to be included? Free of charge?	Right to be not included? Free of charge?	Scope mobile subscribers? pre-paid subscribers?	Relevant legislation
Kosovo	Art. 76 para. 3 Law on telecommunications states that subscriber data may only be included in directories if the subscriber consents in writing. Art. 81 Law on the information society services states that service providers must give subscribers the opportunity to decide whether they want to be included.	Yes, all subscribers have the right to be included (free of charge)	Yes, all subscribers may request not to be included (free of charge)	All subscribers (including mobile subscribers and pre-paid subscribers)	Art. 76 Law on telecommunications Art. 81 Law on the information society services

Table R.1 - Subscriber inclusion in directories

2. Availability of comprehensive directories

The table below shows:

- Whether a comprehensive directory is available in practice and how it is made available to end-users (in particular: in printed form, telephone directory enquiry service).
- Whether somebody (in particular a universal service provider) is obliged to provide a comprehensive directory or comprehensive directory enquiry service.
- Whether a provider of a directory or directory enquiry service can request access to subscriber data of operators and could enforce such access. Please refer to legal provisions and to case-law (decisions of the NRA or of courts) if available.

This table only asks for comprehensive directories or comprehensive directory enquiry services. “Comprehensive” means that the directory includes subscribers of all publicly available telephone services (PATS), or at least that it aims to include subscribers of all PATS providers.

Country	Is a comprehensive directory or directory enquiry service available in practice? Form (printed, telephone enquiry, online)	Legal obligation to provide a comprehensive directory or directory enquiry service?	Legal provisions by which the provider of a directory or a directory enquiry service can request access to subscriber data of operators?
Croatia	Yes Currently, the directory includes subscribers of all fixed operators. In the future also the subscribers of mobile operators.	Art. 35 Electronic communications act defines access of end-users to a comprehensive directory and directory enquiry service as universal services. HT – Hrvatske Telekomunikacije is currently obliged to provide the service as a designated universal service provider.	Art. 47 para. 9 Electronic communications act Art. 4 para. 1 Ordinance on directories and directory enquiry services Both provisions oblige all operators of publicly available telephone services to enable access to subscriber data under non-discriminatory and cost-oriented conditions.
FYROM	No comprehensive directory available in practice	Art. 33 and 34 Law on electronic communications defines the single directory and directory enquiry service as universal service. No undertaking is obliged to provide the service. A procedure of designating a universal service provider for comprehensive telephone directory and directory enquiry services is pending due to necessary amendments in the Law on electronic communications.	Art. 34 para. 6 Law on electronic communications obliges operators providing public telephone services to make subscriber data available to providers of the universal service. It also foresees a dispute settlement procedure. Some amendments of the Law for electronic communications are planned to be done in 2009, related with the comprehensive directory, directory enquiry service and the exchange of subscriber data between the authorised provider(s) for comprehensive directory and directory enquiry service with the operators.
Turkey	No comprehensive directory available in practice	No relevant legislation. No undertaking is obliged to provide the service.	Operators of directory enquiry service can request access to subscriber databases of all operators. Annex A-13 point 4.2 of the Bylaw on authorisation of telecommunications services and infrastructure
Albania	No comprehensive directory available in practice	Art. 25 Law on electronic communications defines the general telephone directory as universal service. No undertaking is obliged to provide the service.	Art. 25 point 3 Law on electronic communications obliges providers of public telephone services to submit subscriber data to providers of universal services.
Bosnia & Herzegovina	No comprehensive directory available in practice	No relevant legislation. No undertaking is obliged to provide the service.	Art. 9 Law on communications obliges telecommunications operators to make their subscriber directory available to other providers for the purpose of publishing directories.
Montenegro	No comprehensive directory available in practice	Art. 52 Law on electronic communications defines the universal phone directory and universal directory enquiry as universal services. No undertaking is obliged to provide the service.	Art. 53 Law on electronic communications
Serbia	No comprehensive directory available in practice	No relevant legislation No undertaking is obliged to provide the service.	No relevant legislation

Country	Is a comprehensive directory or directory enquiry service available in practice? Form (printed, telephone enquiry, online)	Legal obligation to provide a comprehensive directory or directory enquiry service?	Legal provisions by which the provider of a directory or a directory enquiry service can request access to subscriber data of operators?
Kosovo	No comprehensive directory available in practice	No relevant legislation. No undertaking is obliged to provide the service.	Art. 76 para. 5 and 6 Law on telecommunications oblige service providers to submit subscriber data to persons that wish to publish a directory at reasonable prices and under non-discriminatory conditions.

Table R.2 - Availability of comprehensive directories

S. Internet backbone infrastructure

Table S.1 provides data on the Internet backbone infrastructure in the monitored countries.

- An Internet exchange point (IXP) is a node where different Internet service providers (ISPs) exchange Internet traffic. An IXP typically consists of several network switches to which all participating ISPs connect. Often, the provider of the IXP is not an ISP itself, but a commercial data centre or a non-profit organisation like a university data centre. Many European IXPs are organised in the European Internet Exchange Association (Euro-IX). The table shows the IXPs in the monitored countries.
- The second column shows the total capacity of international Internet bandwidth in Mbps. If the capacity is asymmetric (more incoming than outgoing), the incoming capacity is provided.

Country	Internet exchange points (name, URL)	International Internet bandwidth (Gbps)
Croatia	CIX (Croatian Internet eXchange) http://www.cix.hr/	55.1 Gbps (December 2008)
FYROM	The Macedonian Academic Research Network (MARNet) intends to become a Macedonian IXP in the near future. Several local ISPs are already connected. http://anal.marnet.net.mk/mrtgwebcfg/index.php?gid=9&mode=view&page	11 Gbps (February 2009)
Turkey	No	206.5 Gbps (December 2008)
Albania	No	1.2 Gbps (December 2008)
Bosnia & Herzegovina	No	Not available
Montenegro	No	1.9 Gbps (2007)
Serbia	No	35 Gbps
Kosovo	No	4 Gbps (December 2008)

Table S.1 - Internet backbone infrastructure

T. Management of Internet domains

1. National domain name registry

Table T.1 shows:

- The name and website of the national registry in charge of the country codes Top Level Domains (ccTLD). The registry is the body which manages the central database and the domain name servers.
- The legal basis of to the registry in the national legislation, for example a body could be given the responsibility to act as the national registry by law, by an ordinance, by a contract with the government, or it could not have a formal legal basis.
- The legal basis of the national domain name policy, in particular the rules on who can register a domain name, rules on accrediting registrars and dispute settlement provisions. For example, such rules could be defined by an ordinance of a minister or the registry could have the legal power to adopt such rules.

Country	Name and website of the national registry	Legal basis of the national registry	Legal basis of the national domain name policy
Croatia	CARNet DNS služba http://www.dns.hr/	Contract with Internet Assigned Number Authority (IANA), Art. 79 Electronic communications act	Currently: Regulations of CARNet In future: ordinance of the minister responsible for the information society, based on art. 79 Electronic communications act
FYROM	http://dns.marnet.net.mk/	Operates within the Macedonian Academic Research Network (MARNet). MARNet was established in 1994 as department of the “Ss Cyril and Methodious” University (biggest national university) by endorsement of the Ministry of Sciences and decision of the University Board. At the same time MARNet was ordered to manage the domain name service.	MARNet, in cooperation with the legal department of the University and the major national ISPs and other affected parties from the internet community have elaborated General Terms and Conditions (a Statute) as an instrument for regulating for national domain name policy. This Statute is adopted by the MARNet Board, University Board and published in National official gazette. It has no formal recognition as a national law. In April 2008 the Statute has been changed in a way that registration of domains directly under the ccTLD has been allowed, provided that the domain name has not been registered in the hierarchical part of the DNS. This was done with consent of the major ISPs and the wider Internet community. The change was passed by the management bodies of MARNet and published in the National Official Gazette.
Turkey	Nic.tr - ".tr" Domain Names Administration Middle East Technical University https://www.nic.tr/	Nic.tr is an organisational unit of Middle East Technical University (METU), operating since 1991 when the first worldwide Internet connection of the country was established by METU. Currently there is no explicit legislation on domain name	General Terms and Conditions, as adopted by the DNS Working Group of Internet Council that has been formed under the auspices of Ministry of Transport and Communication. According to art. 5 of the new Electronic communications law the Ministry is competent for

Country	Name and website of the national registry	Legal basis of the national registry	Legal basis of the national domain name policy
		management except the contract with ICANN. According to art. 35 of the new Electronic communications law the Ministry of Transport and Communications shall regulate the principles and procedure for selecting the registry and for managing domain names.	domain name strategy and policy.
Albania	Authority of Electronic and Postal Communications (AKEP) http://www.akep.gov.al/	Under article 8 point k) of Law no. 9918 on electronic communications, AKEP is the responsible authority for the administration of ccTLD .al and other sub-domains.	Regulation "On the registration and administration of the domain names under .al and sub-domains .gov.al, .mil.al, .edu.al, .com.al, .org.al and .net.al", adopted by AKEP's predecessor TRE on February 21, 2008.
Bosnia & Herzegovina	University Teleinformatic Centre (UTIC) http://www.utic.ba/	From 1996 UTIC has been authorised by IANA. Also in 1996 the government of Bosnia & Herzegovina authorised UTIC. No explicit legislation on domain name management.	Regulations regarding the registration and use of the domain name under the Bosnia & Herzegovina country Internet .BA domain, adopted by UTIC. The Ministry of Communications and Transport intends to adopt a policy on management and usage of the .BA top level domain in 2009.
Montenegro	.ME Register (doMEn) http://www.domen.me/	On the basis of article 7(1) of the Law on the property of the Republic of Montenegro the government adopted a decision establishing the Council for ".me" domain. This council announced a public invitation for selection of the Agent for domain registration. GoDaddy.com won this public tender.	Decision of the Council for „.me" domain of July 14, 2007.
Serbia	Register of National Internet Domain of Serbia (RNIDS) http://www.rnids.rs/	RNIDS is a non-governmental and non-profit association of Internet Service Providers and university institutions, established as a fund in July 2006. On September 25, 2007 ICANN decided to delegate the .rs domain registry to RNIDS and also designated RNIDS as temporary caretaker of the .yu registry until its closure. ICANN will decide on the future of .yu by end of September 2009. Public registration of .rs started on March 10, 2008. No explicit legislation on domain name management	General Terms and Conditions, as adopted by the General Assembly of RNIDS on October 26, 2007
Kosovo	N/A	N/A	N/A

Table T.1 - National domain name registry

2. Registrars of domain names

The management of Internet domain names consists of two different functions, which can be performed by different bodies:

- administrating the registry, in particular a central database and domain name servers (registry function); and
- registering individual domain names, customer contact and billing (registrar function).

For some top-level domains, the registry is the only registrar. In many countries, the registrar function is performed by many different registrars in a competitive environment. Usually, such registrars are accredited (and to some extent supervised) by the registry and have access to the registry's central database by means of an electronic interface.

Table T.2 shows:

- whether the registry itself is the only registrar or competition between registrars has been established;
- whether foreign registrars become accredited and, if yes, if accreditation of foreign registrars is restricted to certain countries;
- whether registrars are accredited by the registry or by a different body;
- whether an electronic interface between registrars and registry exists; and
- the number of active registrars.

Country	Competition between registrars exists?	Can foreign registrars become accredited?	Who accredits registrars?	Electronic interface exists?	Number of active registrars
Croatia	No	No	-	-	1
FYROM	No	No	-	-	1
Turkey	Yes	No (for the time being)	The registry	Yes	13 (end of 2008)
Albania	No	No	-	-	1
Bosnia & Herzegovina	Yes	No	The registry	Yes	19 (January 2009)
Montenegro	Yes	Yes	The registry	Yes	103 (end of 2008)
Serbia	Yes	Yes, but local legal presence is required (e.g. a company registered in Serbia with 100% foreign ownership)	The registry	Yes	36 (February 2009)
Kosovo	N/A	N/A	N/A	N/A	N/A

Table T.2 - Registrars of domain names

3. Cybersquatting and dispute resolution

Cybersquatting is registering, trafficking in, or using a domain name with intent to profit from the goodwill of a trademark belonging to someone else. The cybersquatter then offers to sell the domain to the person or company who owns a trademark contained within the name at an inflated price.

Table T.3 describes the national policies against cyber squatting, including the availability of alternative dispute resolution mechanisms.

Country	Policies against cybersquatting	Dispute resolution mechanism
Croatia	Regulations regarding organisation of the top-level 'hr' Internet domain and the principles of managing the top-level 'hr' domain and Arbitrage rules made by national DNS service (www.dns.hr)	Arbitrage provided by national DNS service
FYROM	There are certain general statements in the registry's Statute that the registrants shall not use the domain names for impersonating third party identity and use the domain name in bad faith but there are no instruments for enforcing such policy apart from the dispute resolution policy.	A dispute resolution policy has been stipulated in the Statute that offers three mechanisms for resolution of disputes: • mutual negotiation and resolution between the affected parties; • by means of an independent Arbitrage Committee; or • by means of an of authoritative court resolution.
Turkey	As it is stated in the '".tr" Domain Names Policies, Rules and Procedures' document, domain names under ".tr" are not to be sold, rented or transferred. In the case of violation, all domain names registered to the owner of the relevant domain name will be subject to deletion. Domain names may only be transferred on the condition that certified rights are also transferred (trademark and patent rights etc.).	Domain name disputes can be ultimately resolved by court proceedings or by the DNS Working Group. The Ministry of Transportation established the "DNS Working Group" in 2000 which functions under the authority of the Internet Council and consists of eleven corporate members of sector representatives, as a means to apply the division of legislative, executive and judicial powers for ".tr" Domain Names. In this context, DNS Working Group operates as the pre-legislative authority and is in charge of determining policies, rules and procedures.
Albania	Regulation on the registration and administration of domain names under .al (article 4 point 2 and 3, article 18, point 2/d, article 34 point 3)	Domain name disputes can be resolved in court proceedings or by arbitration.
Bosnia & Herzegovina	WIPO´s ccTLD best practices for the prevention and resolution of Intellectual Property disputes No explicit legislation on cybersquatting or domain name disputes	ICANN´s Uniform Domain Name Dispute Resolution Policy
Montenegro	Art 27 of the Rules on registration and use of domain below the national internet Domain ".me": „In case of any litigation regarding the right to use the name of the domain between the user of a domain registered according to this Rulebook and third person, international standards, usual rules, and Uniform Domain-Name Dispute-Resolution Policy (UDRP) will be applied."	.ME Uniform Domain Name Dispute Resolution Policy (based on ICANN's Uniform Domain Name Dispute Resolution Policy) The World Intellectual Property Organization (WIPO) is assigned as dispute resolution provider. All claims have to be filed with WIPO.
Serbia	No explicit legislation on cybersquatting or domain name disputes	Rules on Arbitration Proceedings for Settling Disputes Arising out of Registration of .rs Domains, as adopted by the General Assembly of RNIDS on October 26, 2007. Each registrant must in advance give his consent to participate in arbitration proceedings and to comply by the final decision (Art. 18 of the General Terms and Conditions). Domain name disputes can be resolved by arbitration or in court proceedings.
Kosovo	No explicit legislation on cybersquatting or domain name disputes.	TRA has approved a regulation on procedures for dispute resolution based on Art. 4 and 11 of the Law on telecommunications, This also applies to domain name disputes. In case that TRA cannot resolve domain name disputes, they can be resolved in court proceedings or by arbitration.

Table T.3 - Policies against cybersquatting and dispute resolution mechanism

4. Domain market data

Table T.4 shows:

- the number of registered sub domains of the relevant ccTLD;
- the price charged by the registry per sub domain and year (excluding VAT);
- whether this price covers solely the registry functions (for countries with separated functions of registry and registrars) or if it also includes registrar functions (for countries where the registry is the only registrar).

	Number of domains	Price per domain and year (excl. VAT)	Services covered by this price
Croatia	63,190 (end of 2008)	Every legal and physical person is entitled to register one domain without a fee. The price for additional domains is 180 HKR (€24.46)	Registrar functions included
FYROM	About 14,000 (Jan. 2009)	• 525 MKD (€8.55) for the first year, half that price yearly subscription afterwards for local registrants. • Doubled price for foreign registrants.	Registration and 3 free of charge updates within the subscription period. Further changes are charged 160 MKD (€2.61) per change. Registrar functions included
Turkey	180,773 (end of 2008)	• com.tr, net.tr: 20.50 TRY (€9.67) • namesurname.com.tr , namesurname.net.tr: 9.84 TRY (€4.64) • biz.tr, info.tr, tv.tr, org.tr, web.tr, gen.tr, av.tr, bbs.tr, dr.tr: 12.30 TRY (€5.80) • k12.tr, name.tr, tel.tr, bel.tr: 4.10 TRY (€1.93) • gov.tr, edu.tr, pol.tr, mil.tr, tsk.tr: free of charge	Annual registration for a ".tr" domain and any other operation regarding this domain (contact change, DNS server change etc.) Registrar functions not included
Albania	1,370 (end of March 2009)	The price is $75 per 2 years; $37.5 (€25.15) per year	Registrar functions included
Bosnia & Herzegovina	About 8,770 (end of 2008)	44 BAM (€22.45)	.ba domain name registration by the registry (includes yearly maintenance for the first year). Registrar functions not included
Montenegro	183,232 (end of 2008) Includes reserved and premium names, but doesn't include sub-domains of .gov.me, .edu.me and .ac.me	€10 (for domains registered in open registration after the sunrise phases in 2008)	Registry services. Registrar functions not included
Serbia	> 50,000 .rs domains (Feb. 2009) On May 5, 2009 more than 38,000 .yu domains were deleted because their owners decided not to renew them. About 4,100 .yu domains remain active until Sept. 30, 2009.	• .rs: 1,500 RSD (€16.93) • .co.rs, .edu.rs, .org.rs: 500 RSD (€5.64) • .in.rs: 300 RSD (€3.39)	Annual registration for .rs domain by the registry Registrar functions not included
Kosovo	N/A	N/A	N/A

Table T.4 - Domain market data

U. Information society legislation

The table lists the titles and sources of the relevant legislation on information society topics. The first two columns provide the title of the law or ordinance in the original language and in English translation and the third column references to the official gazette number of the original version and later amendments (eventually only the last amendment or amendments relevant in the context of this study). Links are provided if texts are available online in original language or English translation.

The scope of the covered primary legislation includes:

- law on electronic communications (or law on telecommunications) and special laws on certain topics of electronic communications regulation, such as law on universal service, law on digital switchover, law on wireless communications, law on data retention etc.;
- laws on broadcasting or electronic media, law on the public service broadcaster;
- law on competition;
- laws on electronic signature, e-commerce and electronic documents;
- law on data protection;
- the Criminal Code;
- other laws relevant for the sector (for example Law on the information society services, laws containing special provisions for Internet service providers etc.) or other laws that are referred to in other tables of this study.

With regard to secondary legislation, contributing authorities were asked to include the most important items of secondary legislation, in particular on the following topics (if these topics are addressed by secondary legislation and not by individual decisions of the NRA):

- network access and interconnection, joint use of infrastructure;
- authorisation and licensing framework (including most relevant provisions on fees);
- universal service;
- tariff regulation;
- data protection in electronic communications, network security; and
- other secondary legislation that you refer to in other tables of this questionnaire.

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
Croatia	Zakon o elektroničkim komunikacijama http://narodne-novine.nn.hr/clanci/sluzbeni/2008_06_73_2420.html	Electronic communications act http://www.mmpi.hr/UserDocsImages/ECActOG73-2008.pdf	73/08
	Zakon o zaštiti tržišnog natjecanja http://narodne-novine.nn.hr/clanci/sluzbeni/2003_07_122_1730.html	Competition protection act	122/03
	Zakon o elektroničkoj trgovini http://narodne-novine.nn.hr/clanci/sluzbeni/2003_10_173_2504.html http://narodne-novine.nn.hr/clanci/sluzbeni/2008_06_67_2228.html http://narodne-novine.nn.hr/clanci/sluzbeni/2009_03_36_796.html	Electronic commerce act	137/03, 67/08, 36/09
	Zakon o elektroničkoj ispravi	Electronic document act	150/05
	Zakon o elektroničkom potpisu http://narodne-novine.nn.hr/clanci/sluzbeni/2002_01_10_242.html http://narodne-novine.nn.hr/clanci/sluzbeni/2008_07_80_2604.html	Electronic signature act	10/02, 80/08
	Zakon o tajnosti podataka http://narodne-novine.nn.hr/clanci/sluzbeni/2007_07_79_2483.html	Data secrecy act	79/07
	Zakon o informacijskoj sigurnosti http://narodne-novine.nn.hr/clanci/sluzbeni/2007_07_79_2483.html	Information security act	79/07
	Zakon o elektroničkim medijima	Electronic media Act	122/03, 79/07, 32/08
	Zakon o Hrvatskoj radioteleviziji	Croatian radio-television act	362/03
	Zakon o zaštiti osobnih podataka	Personal data protection act	103/03, 118/06, 41/08
	Zakon o pravu na pristup informacijama	Act on free access to public information	172/03
	Zakon o autorskom pravu i srodnim pravima	Act on copyright and related rights	167/03, 79/07
	Zakon o patentu	Patent act	173/03, 87/05, 30/09
	Zakon o tehničkim zahtjevima za proizvode i ocjeni sukladnosti	Act on technical requirements on products and certification	158/03, 79/07
	Zakon o osobnom identifikacijskom broju	Act on personal identification number	60/08
	Zakon o institucijama za elektronički novac	Act on institutions for electronic money	117/08

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Zakon o zaštiti potrošača	Consumer protection act	79/07, 125/07
	Kazneni zakon	Criminal code	110/97, 27/98, 50/00, 129/00, 51/01, 111/03, 190/03, 105/04, 84/05, 71/06, 110/07, 152/08
	Uredba o mjerama informacijske sigurnosti http://narodne-novine.nn.hr/clanci/sluzbeni/2008_04_46_1547.html	Regulation on information security measures	46/08
	Pravilnik o namjeni radiofrekvencijskog spektra http://narodne-novine.nn.hr/clanci/sluzbeni/2008_11_136_3838.html	Ordinance on the radio frequency spectrum allocation	136/08
	Pravilnik o uvjetima dodjele i uporabe radiofrekvencijskog spektra http://narodne-novine.nn.hr/clanci/sluzbeni/2008_11_136_3839.html	Ordinance on conditions for assignment and use of radiofrequency spectrum	136/08
	Pravilnik o prelasku s analognog na digitalno odašiljanje radijskih i televizijskih programa te pristupu položajima u multipleksu u zemaljskoj digitalnoj radiodifuziji http://narodne-novine.nn.hr/clanci/sluzbeni/2008_12_148_4074.html	Ordinance on the switching from analogue to digital broadcasting of radio and television programs and access to the multiplex positions in terrestrial digital broadcasting	148/08
	Pravilnik o plaćanju naknada za pravo uporabe adresa, brojeva i radiofrekvencijskog spektra http://narodne-novine.nn.hr/clanci/sluzbeni/2008_12_154_4201.html http://narodne-novine.nn.hr/clanci/sluzbeni/2009_03_28_642.html	Ordinance on the payment of fees for the right to use the addresses, numbers and the radio frequency spectrum	154/08, 28/09
	Pravilnik o načinu i uvjetima obavljanja djelatnosti elektroničkih komunikacijskih mreža i usluga http://narodne-novine.nn.hr/clanci/sluzbeni/2008_12_154_4202.html	Ordinance on manner and conditions for providing electronic communication networks and services	154/08
	Pravilnik o načinu i uvjetima pristupa i zajedničkog korištenja elektroničke komunikacijske infrastrukture i povezane oprema http://narodne-novine.nn.hr/clanci/sluzbeni/2008_12_154_4203.html	Ordinance on manner and conditions of access and shared use of electronic communications infrastructure and associated facilities	154/08
	Pravilnik o plaćanju naknada za obavljanje poslova Hrvatske agencije za poštu i elektroničke komunikacije http://narodne-novine.nn.hr/clanci/sluzbeni/2008_12_154_4204.html	Ordinance on the payment of the fees for the carrying out of tasks of the HAKOM	154/08

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Pravilnik o dodjeli adresa i brojeva http://narodne-novine.nn.hr/clanci/sluzbeni/2008_12_154_4205.html	Ordinance on assignment of addresses and numbers	154/08
	Pravilnik adresiranja http://narodne-novine.nn.hr/clanci/sluzbeni/2008_12_154_4206.html	Ordinance on Addressing plan	154/08
	Pravilnik numeriranja http://narodne-novine.nn.hr/clanci/sluzbeni/2008_12_154_4207.html	Ordinance on Numbering plan	154/08
	Pravilnik o načinu rada unutarnje ustrojstvene jedinice za zaštitu prava korisnika http://narodne-novine.nn.hr/clanci/sluzbeni/2009_01_10_239.html	Ordinance on the work of the internal customer protection unit of HAKOM	10/09
	Pravilnik o univerzalnim uslugama u elektroničkim komunikacijama http://narodne-novine.nn.hr/clanci/sluzbeni/2009_02_23_516.html	Ordinance on universal services in electronic communications	23/09
	Pravilnik o imeniku i službi davanja obavijesti o pretplatnicima http://narodne-novine.nn.hr/clanci/sluzbeni/2009_02_23_517.html	Ordinance on subscriber directory and directory enquiry services	23/09
	Pravilnik o potvrdi i naknadi za pravo puta http://narodne-novine.nn.hr/clanci/sluzbeni/2009_03_31_699.html	Ordinance on the right-of-way certificate and payment of fees for the right of way	31/09
	Pravilnik o standardnim ponudama http://narodne-novine.nn.hr/clanci/sluzbeni/2009_03_37_829.html	Ordinance on the reference offer	37/09
	Pravilnik o načinu i uvjetima sprječavanja i suzbijanja zlouporaba i prijevara u pružanju usluga elektroničke pošte http://narodne-novine.nn.hr/clanci/sluzbeni/2009_04_42_952.html	Ordinance on the prevention and suppression of abuse and fraud in the provision of electronic mail services	42/09
	Pravilnik o načinu i uvjetima određivanja zone elektroničke komunikacijske infrastrukture i povezane opreme, zaštitne zone i radijskog koridora te obveze investitora radova ili građevine http://narodne-novine.nn.hr/clanci/sluzbeni/2009_04_42_953.html	Ordinance on the determination of zone of the electronic communication infrastructure and associated facilities, and of the protected zone and the radio corridor, and the obligations of the construction work or building investor in that zone	42/09

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Pravilnik o prenosivosti broja http://narodne-novine.nn.hr/clanci/sluzbeni/2009_04_42_954.html	Ordinance on number portability	42/09
FYROM	Zakon za elektronskite komunikacii	Law on electronic communications	13/05, 14/2007, 55/2007 and 98/2008
	Zakon za radiodifuzna dejnost	Broadcasting law	100/05, 19/07, 103/08
	Zakon za zashtita na konkurencijata	Law on protection of competition	04/05, 70/06, 22/07
	Zakon za zashtita na lichnite podatoci	Law on personal data protection http://www.dzlp.mk/files/uploads/global/LAW%20ON%20PERSONAL%20DATA%20PROTECTION-CLEARED%20VERSION.pdf	07/05, 103/08
	Zakon za elektronska trgovija	Law on electronic commerce http://mio.gov.mk/?q=node/220	133/07
	Zakon za pravna zashtita na uslugite koi se zasnovaat na ili opfakaat usloven pristap	Law on legal protection of services that are based on or concern conditional access http://mio.gov.mk/files/pdf/na_angliski/Law_on_Interception_of_Comunications_%21.pdf	127/08
	Zakon za podatoci vo elektronski oblik I elektronski potpies	Law on data in electronic form and electronic signatures	34/01, 06/02, 98/08
	Krivichen zakon na republika Makedonija	Crime Code of the Republic of Macedonia	37/96, 7/08, 139/08
	Zakon za sledenje na komunikacii	Law on interception of communications http://mio.gov.mk/files/pdf/na_angliski/Law_on_Interception_of_Comunications_%21.pdf	121/06, 110/08, 05/09
	Zakon za avtorskoto pravo I srodnite prava	Law on copyright and related rights	47/96, 3/98, 98/02, 4/05, 23/05,131/07
	Zakon za sloboden pristap do informacii od javen karakter	Law of free access to information of public character	13/06
Turkey	5809 sayılı Elektronik Haberleşme Kanunu	Electronic communications law http://www.tk.gov.tr/eng/duzenmaineng2.html	Official gazette 27050 dated 10.11.2008
	5369 sayılı Evrensel Hizmet Kanunu	Universal service law http://www.tk.gov.tr/eng/pdf/5369.pdf	Official gazette 25856 dated 25.06.2005, last amendment by law 5809, official gazette 27050 dated 10.11.2008
	5070 sayılı Elektronik İmza Kanunu	Electronic signature law http://www.tk.gov.tr/eng/pdf/Electronic_Signature_Law.pdf	Official gazette 25355 dated 23.01.2004
	5237 sayılı Türk Ceza Kanunu	Turkish Criminal Code	Official gazette 25611 dated 12.10.2004
	5651 sayılı İnternet Ortamında Yapılan Yayınların Düzenlenmesi ve Bu Yayınlar Yoluyla İşlenen Suçlarla Mücadele Edilmesi Hakkında Kanun	Law No. 5651 on regulating broadcast in Internet and combating crimes committed through such broadcast	Official gazette 26530 dated 23.05.2007

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	4054 sayılı Rekabetin Korunması Hakkında Kanun	Law on the protection of competition http://www.rekabet.gov.tr/index.php?Sayfa=sayfaicerik&icId=165	Official gazette 22140 dated 13.12.1994, last amendment by law 5728, official gazette 26781 dated 08.02.2008
	3984 sayılı Radyo ve Televizyonların Kuruluş ve Yayınları Hakkında Kanun	Law on establishment and broadcasting of television enterprises	Official gazette 21911 dated 20.04.1994, last amendment by law 5785, official gazette 26945 dated 23.07.2008
	2954 sayılı Türkiye Radyo ve Televizyon Kanunu	Law on Turkish Radio and Television Corporation	Official gazette 18221 dated 14.11.1983, last amendment by law 5767, official gazette 26918 dated 26.06.2008
	3093 sayılı Türkiye Radyo-Televizyon Gelirleri Kanunu	Law on revenues of Turkish Radio and Television Corporation	Official gazette 18606 dated 15.12.1984, last amendment by law 5784, official gazette 26948 dated 26.07.2008
	5846 sayılı Fikir ve Sanat Eserleri Kanunu	Law on intellectual and artistic works	Official gazette 7981 dated 13.12.1951, last amendment by law 5571, official gazette 26402 dated 13.01.2007
	Telekomünikasyon Sektöründe Kişisel Verilerin İşlenmesi ve Gizliliğinin Korunmasına Dair Yönetmelik	Bylaw on personal information processing and protection of privacy in the telecommunications sector http://www.tk.gov.tr/eng/pdf/data_protection.pdf	Official gazette 25365 dated 06.02.2004
	Elektronik Haberleşme Güvenliği Yönetmeliği	Bylaw on security of electronic communications	Official gazette 26942 dated 20.07.2008
	Tüketici Haklarının Korunması Yönetmeliği	Bylaw on the protection of consumer rights http://www.tk.gov.tr/eng/pdf/Ordinance%20On%20The%20Consumer%20Rights%20In%20The%20Telecommunications%20Sector.pdf	Official gazette 25678 dated 22.12.2004
	Telekomünikasyon Hizmet ve Altyapılarına İlişkin Yönetmelik http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelikler/2008/konsolide.pdf	Bylaw on authorisation of telecommunications services and infrastructure http://www.tk.gov.tr/eng/pdf/yy_ing2.pdf	Official gazette 25565 dated 26.08.2004, last amendment official gazette 27060 dated 20.11.2008
	Erişim ve Arabağlantı Yönetmeliği	Bylaw on access and interconnection http://www.tk.gov.tr/pdf/ordinance_access_interconnection.pdf	Official gazette 26552 dated 14.06.2007
	Numara Taşınabilirliği Yönetmeliği http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelikler/2007/numara_tasinabilirligi_yonetmeligi_01_02_2007.doc	Number portability bylaw http://www.tk.gov.tr/eng/duzenmaineng2.html	Official gazette 26421 dated 01.02.2007
	Tarife Yönetmeliği http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelikler/Yonetmelikler.htm	Tariff bylaw http://www.tk.gov.tr/pdf/TARIFF_ORDINANCE.pdf	Official gazette 24507 dated 28.08.2001

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Telekomünikasyon Sektöründe Hizmet Kalitesi Yönetmeliği http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelikler/Telekomunikasyon-Sektorunde-Hizmet-Kalitesi-Yonetmeligi.pdf	Bylaw on quality of service in the telecommunications sector http://www.tk.gov.tr/eng/pdf/Ordinance%20On%20Quality%20Of%20Service%20In%20The%20Telecommunication%20Sector.pdf	Official gazette 25744 dated 03.03.2005
	Etkin Piyasa Gücüne Sahip İşletmecilerin Belirlenmesine İlişkin Usul ve Esaslar Hakkında Yönetmelik	Bylaw on principles and procedures for determination of the operators with significant market power http://www.tk.gov.tr/eng/duzenmaineng2.html	Official gazette 26396 dated 07.01.2007
	Numaralandırma Yönetmeliği http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelikler/Numaralandirma_Yonetmeligi.pdf	Bylaw on numbering http://www.tk.gov.tr/eng/Numbering_Regulation.pdf	Official gazette 25385 dated 26.02.2004
	Elektronik Belge Standartları Konulu Başbakanlık Genelgesi	Prime Ministry circular regarding the electronic documents standards	Official gazette 26938 dated 16.07.2008
	http://rega.basbakanlik.gov.tr/ is the website of the official gazette. Legal documents can be searched from the “Gelişmiş arama” option of this website using the date and number of the publication.		
Albania	Ligji nr. 9918 datë 19.05.2008 “Për komunikimet elektronike në Republikën e Shqipërisë”	Law no. 9918 dated 19.05.2008 “On electronic communications in the Republic of Albania”	84/2008
	Ligji nr.9742 datë 28.05.2007 "Për transmetimet numerike në Republikën e Shqipërisë”	Law no. 9742 dated 28.05.2007 “On digital transmission in the Republic of Albania”	74/2007
	Ligji nr. 8410 datë 30.09.1998 "Për Radion dhe Televizionin Publik e Privat ne Republiken e Shqiperise" ndryshuar me ligjin nr. 8655 date 31.07.2000, me ligjin nr. 8794 datë 10.05.2001, me ligjin nr. 9016 datë 20.02.2003, me ligjin nr. 9124 datë 29.07.2003, me ligjin nr. 9531 datë 11.05.2006, me ligjin nr. 9584 datë 17.07.2006, me ligjin nr. 9677 datë 13.01.2007, me ligjin nr. 9262 datë 21.07.2008	Law no. 8410 dated 30.09.1998 “On public and private radio and television in Republic of Albania” amended by law no. 8655 dated 31.07.2000, amended by law no. 8794 dated 10.05.2001, amended by law no. 9016 dated 20.02.2003, amended by law no. 9124 dated 29.07.2003, amended by law no. 9531 dated 11.05.2006, amended by law no. 9584 dated 17.07.2006, amended by law no. 9677 dated 13.01.2007, amended by law no. 9262 dated 21.07.2008	24/1998 24/2000 34/2001 18/2003 71/2003 65/2006 84/2006 2/2007 125/2008
	Ligji nr. 9121 datë 28.07.2003 “Per mbrojtjen e konkurrences” amenduar me Ligjin nr. 9499, date 03.04.2006, me Ligjin nr. 9584, date 17.07.2006	Law no. 9121 dated 28.07.2003 “On competition”, amended by law no. 9499 dated 03.04.2006 and by law no. 9584 dated 17.07.2006.	71/2003, 37/2006 and 84/2006
	Ligji nr. 9880 datë 25.02.2008 “Per nenshkrimin elektronik”	Law no. 9880 dated 25.02.2008 “On electronic signature”	40/2008
	Ligji nr. 9887 datë 10.3.2008 “Per mbrojtjen e te dhenave personale”	Law no. 9887 dated 10.03.2008 “On personal data protection”	43/2008

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	Ligji nr. 7895 datë 27.01.1995 "Kodi Penal" i ndryshuar Ligji nr. 9859 datë 21.01.2008, Ligji nr. 10023 datë 27.11.2008	Law no. 7895 dated 27.01.1995 "Criminal code", amendments on cybercrime by law no. 9859 dated 21.01.2008 and law no. 10023 dated 27.11.2008	2/1995 (original version) 10/2008 and 190/2008 (amendments on cybercrime) Other amendments not included
	Ligji nr. 10128 datë 11.05.2009 "Për tregtinë elektronike"	Law no. 10128 dated 11.05.2009 "On electronic commerce"	to be published
	Vendim i Keshillit te Ministrave Nr. 329 dt. 31.5.2001: "Per miratimin e Planit Kombetar te Frekuencave"	Council of Minister's Decision no. 329 dated 31.05.2001 "On the approval of the national plan of radio frequencies"	
	Vendim i Keshillit te Ministrave Nr. 288 dt. 18.6.1999 "Per miratimin e dokumentit te plitikes se zhvillimit te sektorit te telekomunikacioneve ne Republiken e Shqiperise", amenduar me VKM nr. 311, dt. 5.7.1999, VKM Nr. 615 dt. 2.11.2001, VKM nr. 692 dt. 27.12.2002 dhe VKM nr. 464 dt. 3.7.2003	Council of Minister's Decision no. no. 288 dated 18.06.1999 "On the approval of the telecommunications development policy paper in the Republic of Albania", amended by decisions no. 311 dated 05.07.1999, no. 615 dated 02.11.2001, no. 692 dated 27.12.2002 and no. 464 dated 03.07.2003	
	VKM nr. 59 datë 21.01.2009 "Per Miratimin e Strategjise Ndersektoriale te Shoqerise se Informacionit"	Council of Ministers' Decision no. 59 dated 21.01.2009 "On the approval of crosscutting strategy on information society"	25/2008
	Rregullore mbi Aksesin dhe Interkoneksionin miratuar me Vendim te Keshillit Drejtues te ERT-se, nr. 416 date 7.12.2007	Regulation "On access and interconnection", adopted by the Governing Council of TRE, approved by the Governing Council of TRE, decision no. 416 dated 07.12.2007	http://www.akep.gov.al/
	Rregullore mbi shpalljen operatore me fuqi te ndjeshme ne treg te operatoreve ne tregun e telekomunikacioneve, miratuar me vendimin e Keshillit Drejtues te ERT-se nr. 159 te dates 18.2.2004	Regulation "On declaring significant marked power operators in the telecommunications market", approved by the Governing Council of TRE, decision no. 159 dated 18.02.2004	http://www.akep.gov.al/
	Rregullore mbi "Njoftimin e autorizimit te Pergjithshem" miratuar nga Keshilli Drejtues i AKEP, me vendimin nr.495 dt. 19.9.2008	Regulations "On general authorisation notification", approved by the Governing Council of AKEP, decision no. 495 dated 19.09.2009	http://www.akep.gov.al/
	Rregullore mbi regjistrimin e domain name nen .al dhe nendomaineve .gov.al, mil.al, edu.al, com.al, org.al dhe net.al, miratuar me vednimin e Keshillit Drejtues te ERT-se nr. 437 dt. 21.2.2008	Regulation "On the registration and administration of the domain names under .al and sub-domains .gov.al, .mil.al, .edu.al, .com.al, .org.al and .net.al", approved by the Governing Council of TRE, decision no. 437 dated 21.02.2008	http://www.akep.gov.al/
Bosnia & Herzegovina	Zakon o komunikacijama http://www.mkt.gov.ba/bos/dokumenti/zakoni/BS-01-kom.pdf Zakon o dopunama zakona o komunikacijama http://www.mkt.gov.ba/bos/dokumenti/zakoni/BS-02-kom.pdf	Law on communications http://www.rak.ba/en/legal/?cid=2427	31/03, last amendment 14/03
	Zakon o konkurenciji Bosne i Hercegovine http://www.bihkonk.gov.ba/	Law on competition http://www.bihkonk.gov.ba/en/	18/06, last amendment 76/07

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	Zakon o javnom radiotelevizijskom sistemu Bosne i Hercegovine http://www.mkt.gov.ba/bos/dokumenti/zakoni/BS-01-rtvsist.pdf	Law on the public broadcasting system of BiH	78/05
	Zakon o javnom radiotelevizijskom servisu Bosne i Hercegovine http://www.mkt.gov.ba/bos/dokumenti/zakoni/BS-01-rtvserv.pdf	Law on the public broadcasting service of BiH	92/05
	Zakon o elektronskom potpisu http://www.mkt.gov.ba/bos/dokumenti/zakoni/BS-01-elepot.pdf	Law on electronic signature	91/06
	Zakon o elektronskom pravnom i poslovnom prometu http://www.mkt.gov.ba/bos/dokumenti/zakoni/BS-01-elepravpot.pdf	Law on electronic legal and business transactions	88/07
	Pravilo 16/2002 o interkonekciji http://www.rak.ba/bs/legal/rules-codes/telecom/rules/default.aspx?cid=1403	Interconnection rule http://www.rak.ba/en/legal/rules-codes/telecom/rules/default.aspx?cid=699	36/02
	Pravilo 35/2008 o pristupu izdvojenoj lokalnoj petlji http://www.rak.ba/bs/legal/rules-codes/telecom/rules/default.aspx?cid=4934	Rule 35/2008 on unbundled access to the local loop http://www.rak.ba/en/legal/rules-codes/telecom/rules/default.aspx?cid=4975	54/08
	Pravilo 20/2003 o utvrđivanju graničnih cijena iznajmljenih linija u BiH http://www.rak.ba/bs/legal/rules-codes/telecom/rules/default.aspx?cid=2927	Rule 20/2003 on determining ceiling prices for leased circuits in Bosnia & Herzegovina http://www.rak.ba/en/legal/rules-codes/telecom/rules/default.aspx?cid=2929	41/03, last amendment 105/08
	Pravilo 24/2005 o modelu rebalansa cijena govornih telefonskih usluga u BiH http://www.rak.ba/bs/legal/rules-codes/telecom/rules/default.aspx?cid=3842	Rule 24/2005 on the model of tariff rebalance of voice telephone services in Bosnia & Herzegovina http://www.rak.ba/en/legal/rules-codes/telecom/rules/default.aspx?cid=3940	50/05, last amendment 105/08
Montenegro	Zakon o elektronskim komunikacijama http://www.gov.me/files/1227718289.pdf	Law on electronic communications	50/08
	Zakon o elektronskom potpisu http://www.vlada.cg.yu/files/1198662448.pdf	Law on electronic signature	55/03, 31/05
	Zakon o elektronskoj trgovini http://www.vlada.cg.yu/files/1198662564.pdf	Law on electronic commerce http://www.gov.me/eng/rsr/vijesti.php?akcija=vijesti&id=7839	80/04
	Zakon o elektronskom dokumentu http://www.vlada.cg.yu/files/1221489506.pdf	Law on electronic document	5/08

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	Zakon o primjeni propisa kojima se uređuje zaštita prava intelektualne svojine http://www.pkcg.org/zakonodavstvo/intelektualna_svojina/dok_1.pdf	Law on application of legal acts for protection of intellectual property rights	45/05
	Zakon o medijima	Media law	51/02, 56/04
	Zakon o radio difuziji	Broadcasting law	51/02, 62/02, 46/04, 77/06, 50/08, 79/08
	Zakon o javnim radio-difuznim sredstvima Crne Gore http://www.rtcg.cg.yu/docs/zakon_o_JRDS_2008.pdf	Law on public broadcasting services of Montenegro	79/08
	Zakon o digitalnoj radio difuziji	Digital broadcasting law	Planned to be adopted
	Zakon o slobodnom pristupu informacijama http://www.skupstina.cg.yu/index1.php?module=17&akt=608&sub=13	Law on free access to information	68/05
	Zakon o tajnosti podataka http://www.mup.vlada.cg.yu/vijesti.php?akcija=vijesti&id=157346	Information security law http://www.gov.me/eng/minunutr/vijesti.php?akcija=vijesti&id=157346	14/08
	Zakon o zastiti neobjavljenih podataka http://www.skupstina.cg.yu/index1.php?module=17&akt=261&sub=13 Zakon o izmjeni zakona o zastiti neobjavljenih podataka http://www.skupstina.cg.yu/index1.php?module=17&akt=861&sub=13	Law on protection of unpublished data Law on modification of law on protection of unpublished data	16/07 73/08
	Zakon o zaštiti podataka o ličnosti http://www.skupstina.cg.yu/index1.php?module=17&sub=13&akt=895	Law on personal data protection	79/08
	Pravilnik o uslovima za izgradnju telekomunikacionih mreža	Rulebook on conditions of construction of telecommunication networks	10/06
	Pravilnik o zajedničkom korišćenju telekomunikacione infrastrukture http://www.agentel.cg.yu/regulativa/pravilnik%20o%20zajednickom%20koriscenju%20telekomunikacione%20infrastrukture.pdf	Rulebook on common usage of telecommunication infrastructure	65/05
	Pravilnik o pristupu i interkonekciji http://www.agentel.cg.yu/konsultacije/2006/Interkonekcija/Nacrt_Pravilnika.pdf	Rulebook on access and interconnection	4/06
Serbia	Zakon o telekomunikacijama http://www.mtid.gov.rs/dokumenta/zakoni,_uredbe_i_pravilnici.49.html	Telecommunications law http://www.ratel.rs/index.php?page=regulativa&target=r_zakon&item=38&get_treerot=9&lang=eng	44/03 and 36/06

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	Zakon o elektronskom potpisu	Law on electronic signature	135/2004
	Zakon o informacionom sistemu Republike Srbije	Law on information systems in Republic of Serbia	12/1996
	Zakon o organizaciji i nadleznosti drzavnih organa za borbu protiv visokotehnoloshkog kriminala http://www.arii.sr.gov.yu/?view_doc_legislation	Law on organisation and competences of public authorities for fighting high technology crime	61/2005
	Zakon o oglašavanju	Law on advertising	79/2005
	Krivični zakonik http://www.arii.sr.gov.yu/?view_doc_legislation	Criminal code	85/2005
	Zakon o zaštiti podataka o ličnosti	Law on personal data protection	97/2008
	Uredba o obezbedjivanju i zastiti informacionih sistema drzavnih organa	Act of securing and protecting information systems in government institutions	41/1990
	Uputstvo za izradu i usvajanje projekata informacionih sistema organa uprave	Guidelines for development and acceptance projects related to information systems in government institutions	49/1989
	Pravilnik o blizim uslovima za izdavanje kvalifikovanog elektronskog potpisa	Regulation on conditions for issuing qualified electronic signatures	26/2008
	Pravilnik o tehnicko-tehnoloskim postupcima za formiranje kvalifikovanog elektronskog potpisa i kriterijumima koje treba da ispune sredstva za formiranje elektronskog potpisa	Regulation on technical and technological steps for creating qualified electronic signature and criteria that need to be fulfilled by the means for creating qualified digital signatures	26/2008
	Pravilnik o Registru sertifikacionih tela koja izdaju kvalifikovane elektronske sertifikate u Republici Srbiji http://www.arii.sr.gov.yu/?view_doc_legislation	Regulation on register of certification bodies for issuing qualified electronic certificates in the Republic of Serbia	26/2008
	Pravilnik o vodjenju evidencije sertifikacionih tela http://www.arii.sr.gov.yu/?view_doc_legislation	Regulation on record keeping of certification bodies	No. 48/2005, 82/2005 and 116/2005
Kosovo	Ligji nr. 2002/7 për telekomunikacionin http://www.unmikonline.org/regulations/unmikgazette/03albanian/A2003regs/RA2003_16.pdf Ligji Nr. 03/L-085 http://www.assembly-kosova.org/common/docs/ligjet/2008_03-L085_al.pdf	Law no. 2002/7 on telecommunications http://www.unmikonline.org/regulations/unmikgazette/02english/E2003regs/RE2003_16.pdf Amended by law no. 03/L-085 http://www.assembly-kosova.org/common/docs/ligjet/2008_03-L085_en.pdf	No official gazette numbers. Laws are cited by the number of the law (see left columns).
	Ligji nr. 02/L-23 për shërbimet e shoqerise http://www.unmikonline.org/regulations/unmikgazette/03albanian/A2006regs/RA2006_32_ALA02_L23.pdf	Law no. 02/L-23 on the information society services http://www.unmikonline.org/regulations/unmikgazette/02english/E2006regs/RE2006_32_ALE02_L23.pdf NB This law includes laws on electronic commerce, distance contracts, electronic invoicing, electronic payment, data protection, electronic signatures and protection of information systems.	

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	Ligji nr. 02/L-15 për komisionin e pavarur te mediave dhe transmetimin http://www.unmikonline.org/regulations/unmikgazette/03albanian/A2005regs/RA2005_34_ALA02L_15.pdf	Law no. 02/L-15 on the independent media commission and broadcasting http://www.unmikonline.org/regulations/unmikgazette/02english/E2005regs/RE2005_34_ALE02L_15.pdf	
	Ligji nr. 2004/36 per konkurrencën http://www.unmikonline.org/regulations/unmikgazette/03albanian/A2004regs/RA2004_44_ALA2004_36.pdf	Law no. 2004/36 on competition http://www.unmikonline.org/regulations/unmikgazette/02english/E2004regs/RE2004_44_ALE2004_36.pdf	
	RA 2003/25 Kodi i përkohshëm penal i Kosovës	RE 2003/25 Provisional criminal code of Kosovo Amended by UNMIK/REG/2004/19 Promulgated by Decree No. DL-059-2008, dated 27.11.2008, of the President http://www.md-ks.org/?page=2,95	
	Udhëzimi administrativ nr. 2004/3 mbi caktimin e dënimeve për kundërvajtjet nga telekomunikacioni http://www.art-ks.org/docs/Law/MTPT-Admin-Instruction-2004_3.pdf	Administrative instruction no. 2004/3 onto charges definition for infractions from telecommunication http://www.art-ks.org/docs/Law/MTPT-Admin-Instruction-2004_3.pdf	
	Plani i numeracionit për rrjetat e telekomunikacionit në Kosovë http://www.art-ks.org/docs/Law/Plani%20i%20numeracionit%20për%20rrjetat%20e%20telekomunikacionit%20në%20Kosovë.pdf	Numbering plan for telecommunication networks in Kosovo http://www.art-ks.org/docs/Law/Regulation%20on%20National%20Numbering%20Plan.pdf	
	Udhëzim administrativ nr. 180/07 mbi tarifën për procesim të aplikacionit http://www.art-ks.org/docs/Aplications/Udhëzim%20Administrativ%20mbi%20Tarifën%20për%20Procesim%20të%20Aplikacionit.pdf	Administrative instruction on tariffs for application processing http://www.art-ks.org/docs/Aplications/ADMINISTRATIVE%20INSTRUCTION%20ON%20TARIFFS%20FOR%20APPLICATION%20PROCESSING.pdf	
	Rregullore për dhënien e licencës për akordimin e së drejtës për shfrytëzimin e radio frekuencave, nr. 008/08 http://www.art-ks.org/docs/regulation/Rregullore_per_Dhenien_e_Licences_per_Akordimin_e_se_Drejtes_per_Shfrytezimin_e_Radio_Frekuencave.pdf	Regulation on granting license for the right to use radio frequencies http://www.art-ks.org/docs/regulation/Regulation_on_Granting_the_License_for_the_Right_to_Use_Radio_Frequenciesfull111.pdf	

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	Rregullorës për licenca dhe autorizime http://www.art-ks.org/docs/regulation/Rregullore_per_Licenca_dhe_Autorizime.doc Ndryshimi dhe plotësimi i rregullorës për licenca dhe autorizime, nr. 182/07-B http://www.art-ks.org/docs/regulation/Ndryshimi_dhe_Plotesimi_i_Rregullores_per_Licenca_dhe_Autorizime.pdf	Regulation on licensing and authorisations http://www.art-ks.org/docs/regulation/Regulation_on_Licenses_and_Authorisations.doc Amendments to the regulation on licensing and authorisations	
	Rregullore për mbrojtjen e konsumatorit dhe fshehtësisë së përdoruesve të shërbimeve telekomunikuese, nr. 222/08 http://www.art-ks.org/docs/regulation/Rregullore%20Per%20Mbrojtjen%20e%20Konsumatorit%20dhe%20Fshehtesise%20se%20Perdoruesve%20te%20Sherbimeve%20Telekomunikuese.pdf	Regulation on consumer protection and telecommunications services consumer privacy http://www.art-ks.org/docs/regulation/REGULATION%20ON%20CONSUMER%20PROTECTION%20AND%20TELECOMMUNICATIONS%20SERVICES%20CONSUMER%20PRIVACY.pdf	
	Rregullore për tarifim të spektrit Ndryshimi dhe plotësimi i rregullorës për tarifim të spektrit, nr. 028/09 http://www.art-ks.org/docs/regulation/Ndryshimi_dhe_Plotesimi_i_Rregullores_per_Tarifim_te_Spektrit.pdf	Regulation on spectrum tariffs plan http://www.art-ks.org/docs/regulation/Regulation_on_Spectrum_Tariffs_Plan.pdf Amendments to the regulation on spectrum tariffs http://www.art-ks.org/docs/regulation/Amendments_to_the_Regulation_on_Spectrum_Tariffs.doc	
	Rregullore për procedurën e zgjidhjes së konflikteve , nr. 183/07 http://www.art-ks.org/docs/Law/RregullorepërProcedurëneZgjidhjessëKonflikteve.pdf	Regulation on procedures for dispute resolution http://www.art-ks.org/docs/Law/RegulationonDisputeResolution.pdf	

Table U.1 - Information society legislation