



REPORT III

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

March 2010

Executive Summary

This is the third report in a series of four monitoring reports prepared in the context of a three-year monitoring project covering South-East European countries that are potential members of the EU, either in the short or medium term: Croatia, former Yugoslav Republic of Macedonia, Turkey, Albania, Bosnia & Herzegovina, Montenegro, Serbia and Kosovo (under UNSCR 1244). It reports on the market developments and the progress made towards compliance with the EU rules for electronic communications and information society services over the past nine months since the publication of the previous report.

The slowdown in economic growth in the Western Balkans and Turkey only started becoming noticeable in the fourth quarter of 2008. At this stage no complete financial data for 2009 is available. However, the forecasts for 2009, initially suggesting that the region would avoid the most serious consequences of the economic crisis, continue to be revised downwards. Recent IMF forecasts for 2009 suggest a shrinking in GDP for the whole region by at least 2.5%. Turkey and Croatia are expected to be worst hit, while the negative impact on the economies of Albania and Kosovo is forecast to be less detrimental. Nevertheless, concerns remain that the region will be affected by the crisis over at least a three-year period, with significant implications for labour markets and in terms of poverty and vulnerability.

In terms of value, the electronic communications market in the eight countries was estimated at €16.43 billion in 2008. This represents a modest 4% increase from the market value in 2007. After the recovery which had been ongoing since 2005 and reached an impressive 18% growth just a year before, 2008 marks a clear drop in the growth of electronic communications sector.

As the countries struggle with growing budget deficits, the electronic communications sector was also affected by some controversial fiscal measures introduced by national governments to combat the crisis. After a temporary additional 10% tax on mobile communications was introduced in Serbia, Croatia implemented a similar 6% tax.

Mobile services largely continue to account for all electronic communications market growth in the monitored countries. With €9.95 billion revenue and 10% annual growth, mobile telephony contributed to over 60% of the sector's turnover in 2008. Mobile penetration continued to grow in all countries, reaching and sometimes even surpassing the level of the EU-27, with Montenegro (226%), Croatia (141%) and Serbia (118.5%) in the lead. With 3G mobile services now available in most of the monitored countries, the growth of mobile broadband has also continued. By July 2009 Croatia had achieved a 4.5% penetration of dedicated mobile data cards, surpassing the EU-27 average of 4.2%. In Turkey, first commercial 3G services were launched in July 2009 but already within the first five months the country reported over 6 million active 3G subscribers and nearly 60,000 mobile data card users.

The growth in mobile penetration was accompanied by intensified competition and dropping retail prices. Particularly significant reductions in retail mobile prices have been reported in the former Yugoslav Republic of Macedonia, Albania, Montenegro, Serbia and Kosovo. However, there has been no advancement on number portability in five of the eight countries. Croatia, the former Yugoslav Republic of Macedonia and Turkey remain the only countries where mobile subscribers have access to number portability. All the three countries reported a good progress, with Turkey in the lead with over 7.5 million mobile numbers ported within one year from the introduction of mobile number portability in November 2008.

Fixed telephony continued its decline at an ever increasing pace. In 2008, the segment lost another 13% of its value in the monitored countries, largely as a result of fixed to mobile substitution. Incumbent operators retain strong or very strong positions in most fixed markets. With the exception of Croatia, the market shares of alternative operators remain below 10%. Implementation of competitive safeguards in fixed networks remains at a very early stage and hardly any progress has been reported since the publication of the previous monitoring report. Only Croatia, the former Yugoslav Republic of Macedonia and Turkey have advanced in implementing most of the competitive safeguards, while other countries are lagging behind.

Following the introduction of general authorisation regime, Turkey has now opened to competition the provision of fixed voice telephony networks and services at the local level, although so far there has been no competitive entry. In Serbia, the long awaited second licence for provision of fixed telephony networks and services was awarded in February 2010, following a public tender procedure. The competitive entry, however, remains problematic in the absence of tariff rebalancing and clear deadlines for the introduction of fixed number portability and local loop unbundling.

Internet access and broadband services are playing an increasingly significant part in the electronic communications sector. In 2008, this segment had grown by 44% reaching €1.39 billion revenue.

Broadband penetration rate remains significantly below the EU-27 average rate that in July 2009 was 23.90%. The average broadband penetration rate for the eight countries was 8.01%. The highest broadband penetration was observed in Croatia (13.44%), 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. Furthermore, limited availability of wholesale offers from the incumbents leaves competitors with little room for service differentiation. A different situation is observed in the former Yugoslav Republic of Macedonia, Bosnia & Herzegovina, Serbia and Kosovo, where competitors are using alternative infrastructures such as cable and fixed wireless access networks. In Albania, local operators offer xDSL services in competition with the incumbent based on own networks.

The greatest challenge facing regulators is the task of carrying out market analyses. Since the previous monitoring report, new rounds of market analyses have been carried out in Croatia, the former Yugoslav Republic of Macedonia, Turkey and Albania, while in other countries progress has been extremely limited.

The EU legal framework for information society services has been largely introduced in national legislation, in particular the provisions on legal recognition of electronic contracts and electronic signatures and measures to tackle cybercrime and spam. Turkey has not yet addressed in national legislation the provisions of Electronic Commerce Directive. Bosnia & Herzegovina needs to amend its Criminal Code in order to comply with the Convention on Cybercrime.

After Internet access has been enforced by the revised EU regulatory framework as a fundamental citizens' right, this report analyses in a new chapter the relevant constitutional guarantees and eventual mechanisms to restrict Internet access in the monitored countries by blocking certain users or blocking certain websites. Only one country appears to have a law enabling such mechanisms. The Turkish law regulating publications on the Internet has been frequently applied to block popular websites and therefore presents a cause for concern.

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

In Croatia, the former Yugoslav Republic of Macedonia, Turkey and Serbia the national statistics institutes are collecting information society statistics on an annual basis and have been integrated with Eurostat. In the other countries there is still a lack of comparable statistical data and it remains unclear when the national statistics institute would start collecting data. Data on online commercial transactions or on usage of e-government and e-learning services is missing. Computer and Internet usage is below the EU average, although similar to some of the new EU member states in the region. Turkey and Kosovo reported large gaps between male and female usage of computers and the Internet.

To conclude, the past nine months have shown different dynamics of development in the monitored countries. A good progress was achieved in Croatia, Turkey and the former Yugoslav Republic of Macedonia, while the five other countries are moving at a somewhat slower pace, often attributed to frequent legislative changes and institutional uncertainties.

Table of Contents

I.	INTRODUCTION	9
II.	PARTICIPATING ENTITIES.....	13
III.	METHODOLOGY	17
IV.	INTERIM STUDY REPORT STRUCTURE	18
V.	SCOPE OF INDICATORS.....	18
VI.	SUMMARY REPORT	21
	A. Electronic communications market overview	21
	B. National regulatory authorities.....	29
	C. Market access conditions in electronic communications.....	34
	D. Regulatory framework for market analyses.....	36
	E. Competitive safeguards.....	38
	F. Universal service	44
	G. Fixed retail telephony tariffs.....	48
	H. Mobile retail tariffs	57
	I. Leased lines retail prices	59
	J. Internet and broadband retail prices.....	62
	K. Wholesale tariffs	65
	L. Information society legislation and policy	71
	M. Fundamental rights and freedoms.....	72
	N. Information society statistics.....	74
	O. Network and information security	77
	P. Electronic commerce and electronic signatures.....	81
	Q. Data protection and data retention	84
	R. Management of Internet domains.....	86
VII.	COUNTRY PROFILES	89
	A. Croatia	89
	B. The former Yugoslav Republic of Macedonia (FYROM)	94
	C. Turkey	99
	D. Albania.....	105
	E. Bosnia and Herzegovina	112
	F. Montenegro	117
	G. Serbia	121
	H. Kosovo (under UN Security Council Resolution 1244)	126

List of Tables

Table 1 - List of relevant markets	12
Table 2 - Entities covered in the report.....	14
Table 3 - Progress reports on candidate and potential candidate countries	16
Table 4 - Authorities and ministries supplying data for this report.....	17
Table 5 - Digital switchover plans	34
Table 6 - Implementation of competitive safeguards.....	39
Table 7 - Availability of carrier selection and carrier pre-selection	39
Table 8 - Traffic and location data	47
Table 9 - Monthly subscription fees.....	52
Table 10 - Connection charges	53
Table 11 - Comparison of incumbents' charges for residential fixed to mobile charges and charges for national fixed calls	55
Table 12 - Information society legislation	71
Table 13 - Computer related criminal offences	80
Table 14 - Market access and liability of information society services	81
Table 15 - Electronic signature regulation and market data	83
Table 16 - Protection of confidentiality of communications	84
Table 17 - Traffic and location data	85
Table 18 - Data retention obligations.....	85
Table 19 - Registrars of domain names	87

List of Figures

Figure 1 - Map of South-East Europe.....	14
Figure 2 - Electronic communications market in 2008, by sector.....	21
Figure 3 - Sector revenue growth by country in 2008	22
Figure 4 - Fixed lines per 100 population	22
Figure 5 - Incumbent operators' market shares in fixed telephony, July 2009.....	23
Figure 6 - Subscribers using alternative providers as percentage of total number of fixed lines.....	23
Figure 7 - Growth in mobile penetration (2004-08)	24
Figure 8 - Mobile subscribers – prepaid and postpaid	25
Figure 9 - Mobile market concentration levels, HHI	25
Figure 10 - Number of fixed Internet connections – broadband and narrowband.....	26
Figure 11 - Incumbent ISP's retail market share	26
Figure 12 - Broadband penetration rate, January – July 2009.....	27
Figure 13 - Fixed retail broadband connections by incumbent and alternative operators	27
Figure 14 - Fixed retail broadband connections by technology.....	28
Figure 15 - State ownership of telecommunications operators	29
Figure 16 - Residential line rentals by incumbent, including VAT, 2005-2009.....	49
Figure 17 - Residential charges for a 3-minute local call by incumbent, including VAT, 2006-2009	49
Figure 18 - Residential charges for a 3-minute long distance call by incumbent, including VAT, 2006-2009.....	50
Figure 19 - Residential charges for a 3-minute fixed to mobile call by incumbent, including VAT, 2006-2009.....	50
Figure 20 - Residential charges for a 10-minute international call to UK by incumbent, including VAT, 2006-2009.....	51
Figure 21 - Standard residential monthly rental in €/PPP and nominal euro, including VAT	53
Figure 22 - 10-minute local call charges in euro for residential users, including VAT	54
Figure 23 - 3-minute national call charges in euro for residential users, including VAT	54
Figure 24 - 3-minute fixed to mobile call charges in euro for residential users, including VAT	55
Figure 25 - Residential charges for a 10-minute call to the UK in euro, including VAT	56
Figure 26 - Residential charges for a 10-minute call to the USA in euro, including VAT.....	56
Figure 27 - Low usage basket in euro per month, including VAT	57
Figure 28 - Medium usage basket in euro per month, including VAT	58
Figure 29 - High usage basket in euro per month, including VAT.....	58
Figure 30 - Annual retail prices for 2 km 64 kbps leased lines.....	59
Figure 31 - Annual retail prices for 2 km 2 Mbps leased lines	60
Figure 32 - Annual retail prices for 2 km 34 Mbps leased lines	60
Figure 33 - Annual prices for international half circuits 64 kbps to near country	61
Figure 34 - Annual prices for international half circuits 64 kbps to the UK.....	61

Figure 35 - Annual prices for international half circuits 2 Mbps to near country	62
Figure 36 - Annual prices for international half circuits 2 Mbps to the UK	62
Figure 37 - Dial up Internet charges for 40 hours peak time, including VAT	63
Figure 38 - Broadband 512 kbps monthly subscription charges in euro, including VAT.....	63
Figure 39 - Broadband 1 Mbps monthly subscription charges in euro, including VAT	64
Figure 40 - Broadband 2 Mbps monthly subscription charges in euro, including VAT	64
Figure 41 - Comparison of broadband monthly charges by incumbents with the EU median offerings in €/PPP, including VAT	65
Figure 42 - Local call termination charges on the incumbent's fixed network, peak time	66
Figure 43 - Single transit call termination charges on the incumbent's fixed network, peak time.....	66
Figure 44 - Double transit call termination charges on the incumbent's fixed network, peak time	67
Figure 45 - Local call termination on the fixed incumbent and alternative network	67
Figure 46 - Single transit call termination on the fixed incumbent and alternative network	68
Figure 47 - Double transit call termination on the fixed incumbent and alternative network.....	68
Figure 48 - Fixed to mobile termination rates, peak time	69
Figure 49 - Mobile termination rates as of October 1, 2009, peak time	69
Figure 50 - Connection prices for fully unbundled loop and shared access	70
Figure 51 - Monthly rental prices for fully unbundled loop and shared access	70
Figure 52 - Percentage of individuals regularly using computers	75
Figure 53 - Individuals regularly using the Internet	76
Figure 54 - Enterprises using computers	77
Figure 55 - Enterprises having access to the Internet.....	77
Figure 56 - Domain names, absolute and per 1000 inhabitants	88

List of Abbreviations

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

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

I. INTRODUCTION

The significance of the telecommunications sector has long been recognised by economists, not only as an important service sector in its own right, but also as a critical input for the rest of the economy and also as the enabling infrastructure for the information society. Over-arching goals for the European Union were set in the i2010 policy framework for a European information society for growth and employment¹ and are further emphasised in the recently proposed Europe 2020 Strategy².

Telecommunications policies have come to occupy an important position in the economic development of nations.³ There is a broad consensus within the OECD and the European Union that these policies should be based on competitive markets and that this is best achieved within a stable but evolving legal framework, with markets supervised by a regulatory authority that is separate from and independent of telecommunications operations.

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

A. EU regulatory framework for electronic communications

In the European Union, the regulatory environment for the telecommunications or electronic communications sector⁴ 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.⁵ It was characterised by:
 - individual authorisations for public telephony services and for the construction of infrastructure, both fixed and mobile;
 - a prescribed set of asymmetric regulations imposed on operators with Significant Market Power (SMP), i.e., having 25% or more of a small number of broadly defined markets.

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

3. The “1999 Review” saw the previous legislation repealed and a new set of directives enacted in 2002 and transposed by Member States in 2003: Framework, Authorisation, Access, Universal Service, 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.⁶

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

² <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/225&format=HTML&aged=0&language=EN&guiLanguage=en>

³ 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>

⁴ 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.

⁵ Greece, Ireland, Portugal and Spain had derogations on their introduction.

This became known as the “2003 *acquis*”.⁷

4. In June 2006 the European Commission published a communication on the review of the current regulatory framework.⁸ Then, in November 2007, it adopted a series of legislative proposals that were debated in the European Parliament and the Council of Ministers over two years, until a compromise agreement was finally reached in November 2009.

The most significant elements of the new framework are:⁹

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

The directives revising the EU 2003 regulatory framework for electronic communications and the Regulation establishing BEREC and the supporting Office were published in the EU Official Journal on December 18, 2009. The revised Framework, Access and Authorisation Directives, along with the revised Universal Service and e-Privacy Directives entered into force on December 19. They have to be transposed by Member States into national law by May 25, 2011.

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

A further important reform proposed by the Commission in parallel to the negotiations on the telecoms reform package was adopted on October 16, 2009: the amendment of the GSM Directive, which will allow

⁶ 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.

⁷ 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.

⁸ Report on the outcome of the Review of the EU regulatory framework for electronic communications networks and services. COM(2007) 696 final.

⁹ http://ec.europa.eu/information_society/policy/ecomm/library/proposals/index_en.htm

operators to introduce new services, starting with 3G and extending later to other new technologies, to operate in the GSM 900 MHz band which was previously reserved exclusively for GSM services.

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).¹⁰ 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:¹¹

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			
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.

¹⁰ 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

¹¹ 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
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 2007.¹² While this is now part of the *acquis communautaire*, its application outside member states is complicated by the need for reciprocal agreements amongst operators. The Regulation was amended and extended in 2009 by setting maximum wholesale and retail charges for voice telephony roaming calls in the form of a three-year glide path and introducing new retail and wholesale price caps for SMS and a wholesale cap for data services.

B. Information society aspects

The EU started to address information society issues 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 Directive¹³ (1989) and the Data Protection Directive¹⁴ (adopted in 1995, though the Commission had published its first draft in 1990).

At a special meeting in March 2000 the European Council adopted the Lisbon Strategy, setting a new strategic goal to gain economic growth and better jobs by becoming “the most competitive and dynamic knowledge-based economy in the world”.¹⁵ Creating “an information society for all” became one of the main means to achieve this dynamic knowledge-based economy. The information society aspects of the Lisbon Strategy were addressed in more detail by the eEurope 2002 and 2005 Action Plans.

In June 2005 eEurope was replaced by the current i2010 Strategy.¹⁶ The 2005 Commission communication ‘i2010 - A European Information Society for growth and employment’ formulated an integrated approach to promote the information society and audiovisual media throughout the EU. The i2010 communication has been implemented in all Member States through national strategies.

In August 2009 the Commission published a ‘digital competitiveness report’, in the form of a communication, and an accompanying document, showing the “strong progress” made by the EU digital sector since 2005. It also launched a public consultation on the priorities for a new strategy after 2010 with the view of presenting a new strategy in 2010 as part of the next wave of the Lisbon agenda.

The eSEEurope Initiative¹⁷ extends the EU’s related activities to the SEE countries.

The Electronic Commerce Directive¹⁸ adopted in 2000 ensures that Member States legally recognise electronic contracts. It also grants providers of information society services free market access and established rules on advertising. The Directive provides a safer legal environment for Internet service providers, because it limits their liability for infringements by their subscribers or users. Some of the

¹² 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.

¹³ 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.

¹⁴ 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.

¹⁵ See the Council conclusions and later amendments at http://ec.europa.eu/growthandjobs/european-councils/index_en.htm.

¹⁶ See http://ec.europa.eu/information_society/europe/i2010/index_en.htm.

¹⁷ See <http://www.eeseinitiative.org/>.

¹⁸ Directive 2000/31/EC of the European Parliament and of the Council of June 8, 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce).

provisions of the Electronic Commerce Directive, in particular on transparency of online offers, were preceded by the Directive on the protection of consumers in respect of distance contracts.¹⁹

The Electronic Signatures Directive adopted in 1999 established the legal framework for electronic signatures that are legally equal to handwritten signatures.²⁰ Certification-service providers must not be subject to prior authorisation. Member States must establish a supervision system for those providers who issue qualified certificates.

C. Monitoring progress

Regulatory development has been supported by monitoring the progress in the national electronic communications markets. Each year the European Commission publishes an in-depth report on the implementation of the electronic communications regulatory framework in the Member States. The fourteenth report was adopted by the Commission in March 2009.²¹ These reports have examined major developments in the market and give an assessment of the implementation of the regulatory framework.

Regulatory development was compressed into a much shorter period for the ten Member States that joined the EU on May 1, 2004, and also for Bulgaria and Romania that joined on January 1, 2007. While all negotiated their membership based on the 1998 *acquis*, the EU was in the process of replacing 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 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 codes²² that are used for Internet domain names assigned by Internet Assigned Numbers Authority (IANA).

Country	Code	Comments
Croatia	HR	-
The former Yugoslav Republic of Macedonia (FYROM)	MK	The constitutional name is the Republic of Macedonia, though it is not recognised under this name by some countries. The EU refers to it by the provisional reference under which it was admitted to the United Nations: "the Former Yugoslav Republic of Macedonia". This does not prejudice the outcome of the negotiations on the name of the country that are underway. The country code "MK" is used by ISO and some other organisations.
Turkey	TR	-
Albania	AL	-

¹⁹ 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.

²⁰ Directive 1999/93/EC of the European Parliament and of the Council of December 13, 1999 on a Community framework for electronic signatures.

²¹ COM(2009) 140 final.

²² http://www.iso.org/iso/country_codes

Country	Code	Comments
Bosnia & Herzegovina	BA	<p>Bosnia & Herzegovina (BiH) comprises two parts:</p> <ul style="list-style-type: none"> The Federation of Bosnia & Herzegovina Republika Srpska <p>A separate federal district of Brčko belongs to both.</p> <p>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.</p> <p>The report treats separately the three incumbent operators that, while now operating nationally, were initially established in different parts of the entity:</p> <p>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</p>
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	-
Kosovo (under UNSCR 1244)	XK	<p>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</p> <p>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</p> <p>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</p>

Table 2 - Entities covered in the report



Figure 1 - Map of South-East Europe

²³ <http://www.iana.org/reports/2007/me-report-11sep2007.html>

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

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.

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

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

- Croatia: [2008/119/EC](#)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

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

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.

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.

As part of the process of the agreement and the movement towards membership, annual progress reports are produced (see Table 3), with relevant details included in the country profiles (see Section VII). In 2009, the EC summarised its activities in the Western Balkans.³⁹

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

Table 3 - Progress reports on candidate and potential candidate countries

The EC has provided assistance to countries in the Western Balkans to support their transition to membership of the EU through the Community Assistance for Reconstruction, Development and Stability in the Balkans (CARDS) programme.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

³⁸ Although Croatia and FYROM have been granted candidate country status they remain part of SAP.

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

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.

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 Organization (SPO)
Albania	Authority for Electronic Communications and Post (AKEP)	National Agency on Information Society (NAIS)
Bosnia & Herzegovina	Communications Regulatory Agency (RAK)	Ministry of Communications and Transport
Montenegro	Agency for Electronic Communications and Postal Services (EKIP)	Ministry for Information Society
Serbia	Republic Telecommunications Agency (RATEL)	Ministry for Telecommunications and Information Society
Kosovo	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.

⁴⁴ <http://www.cegd.eu/>

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

⁴⁶ <http://www.inatelecom.org/>

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

The reference dates for the market information were October 1, 2009, for quarterly data and December 31, 2008, for annual data. Price information was also reported as of October 1, 2009. Regulatory and institutional data were as of January 1, 2010, though some indications are also reported of further changes that were well advanced.

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

IV. INTERIM STUDY REPORT STRUCTURE

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

- Summary report: an overview of the most important legislative, regulatory and market developments in the region and in individual countries over the nine-months since June 2009. It presents key findings, highlights the major market trends and provides a summary assessment of the market data.
- Country profiles: an overview of policy making and regulatory authorities for electronic communications and information society services in the monitored countries and outlines the key legal and policy documents.
- Country data: the structure is similar to that of Volume 2 of the annex of the European Commission's Implementation Reports.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. Internet backbone data: data on Internet Exchange Points (IXPs) and international Internet connectivity. The degree of control over major undertakings (fixed, mobile and ISP) exercised by foreign investors. The key financial ratios of the incumbent operators.

⁴⁷ http://ec.europa.eu/information_society/policy/ecomms/implementation_enforcement/index_en.htm

⁴⁸ http://ec.europa.eu/information_society/newsroom/cf/itemdetail.cfm?item_id=2310

- National regulatory authorities: the indicators were revised, taking into account some elements used in the ECTA Regulatory Scorecard.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; legislation on the rights of subscribers to be included or to be not included in subscriber directories, and the availability of comprehensive directories and directory enquiry services in practice; availability of single European emergency number 112; and provisions on itemised billing.
- Retail tariffs:
 - Fixed tariffs: tariff rebalancing and the regulation of retail tariffs, call charging systems and the minimum cost of call, monthly subscription fees and one-off connection charges, tariffs of the incumbent and alternative operators for local, long-distance, fixed-to-mobile and international calls;
 - Mobile tariffs: based on the OECD 2006 mobile baskets;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:

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

⁴⁹ <http://www.ectaportal.com/en/basic651.html>

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.oecd.org/olis/2006doc.nsf/ENGDATCORPLOOK/NT00003A5E/\\$FILE/JT03212157.PDF](http://www.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".

Convention on Cybercrime⁵², 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
- 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.

⁵² 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

In terms of value, the electronic communications market in the eight Enlargement countries was estimated at €16.43 billion in 2008. This represents a modest 4% increase from the market value in 2007. After the recovery which had been ongoing since 2005, 2008 marked a clear drop in electronic communications services market growth. For comparison, before the economies of Western Balkans and Turkey were hit by the economic crisis of 2008-09, the sector revenue grew in 2007 by an impressive 18%.

With a total turnover estimated at €9.013 billion in 2007 and €9.95 billion in 2008, mobile services continue to account for all the growth in the electronic communications market. The weight of mobile services in the total equation continues to rise: since 2006 they have contributed to more than half of the sector's total turnover in the monitored countries – a proportion estimated at 60% in 2008 (see Figure 2).

Fixed telephony has continued its decline at an ever increasing pace. In 2008, the segment lost another 13% of its total value in the monitored countries. This is largely explained by a decrease in the total number of fixed lines and a reduction in average revenue per line. At the same time, Internet access and broadband services are playing an increasingly large part in the electronic communications sector. In 2008, they generated over €425 million more in revenue than the year before, for a total turnover of €1.39 billion.

Cable TV was another fast growing segment in 2008: increasing in value from €113 million in 2007 to nearly €145 million in 2008, which represents an annual increase of 28%.

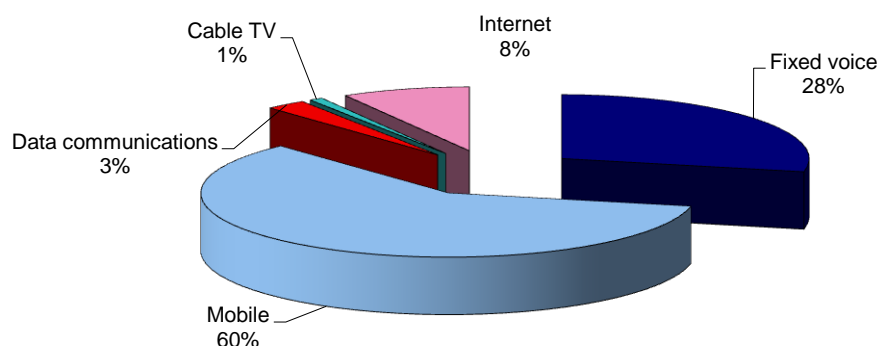


Figure 2 - Electronic communications market in 2008, by sector

Looking at the electronic communications revenue growth in 2008 by individual segments in each country (see Figure 3) gives yet another view of the markets. Particularly strong growth was demonstrated by Internet services in Serbia (over 80%), FYROM (56%), and Turkey (47.9%); by data communications services in Kosovo (89.3%), Serbia (62.2%) and Croatia (57.1%); and by cable television services in Serbia (56.3%). At the same time, fixed voice telephony revenues continued to decline at an ever increasing pace in all countries, with exception of Bosnia and Herzegovina and Albania. In Turkey and Montenegro, the decline in fixed voice telephony segment was close to 20%.

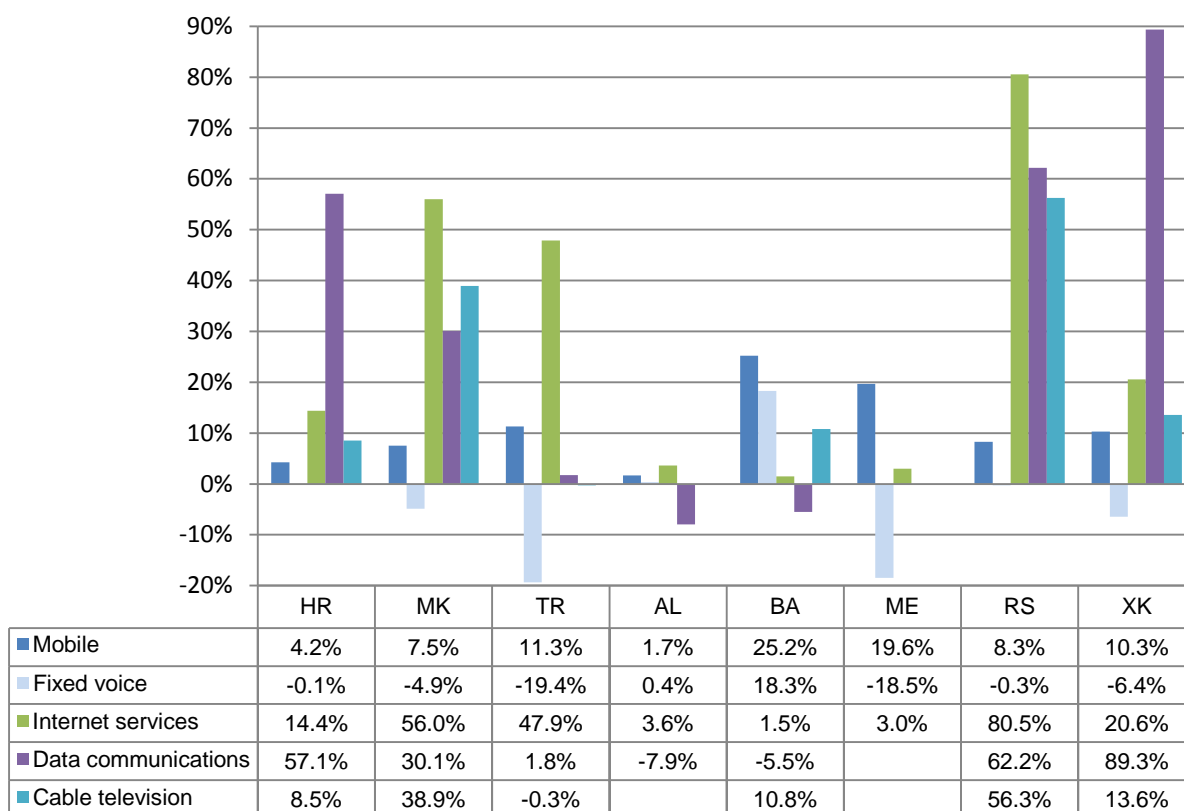


Figure 3 - Sector revenue growth by country in 2008

2. Fixed telephony market

A total number of 24.3 million fixed lines is dominated by Turkey with 17.5 million, followed by Serbia with over 3 million, Croatia with 1.7 million, Bosnia & Herzegovina with almost 1 million, FYROM with nearly 450,000, Albania with 360,000, Montenegro with 179,000 and Kosovo with almost 100,000. In Turkey, Croatia and FYROM there was observed some decline in the total number of fixed lines.

As of July 1, 2009, 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 4). FYROM and Turkey have seen a continuing decrease in penetration since 2004, while Serbia and Albania have the reverse.

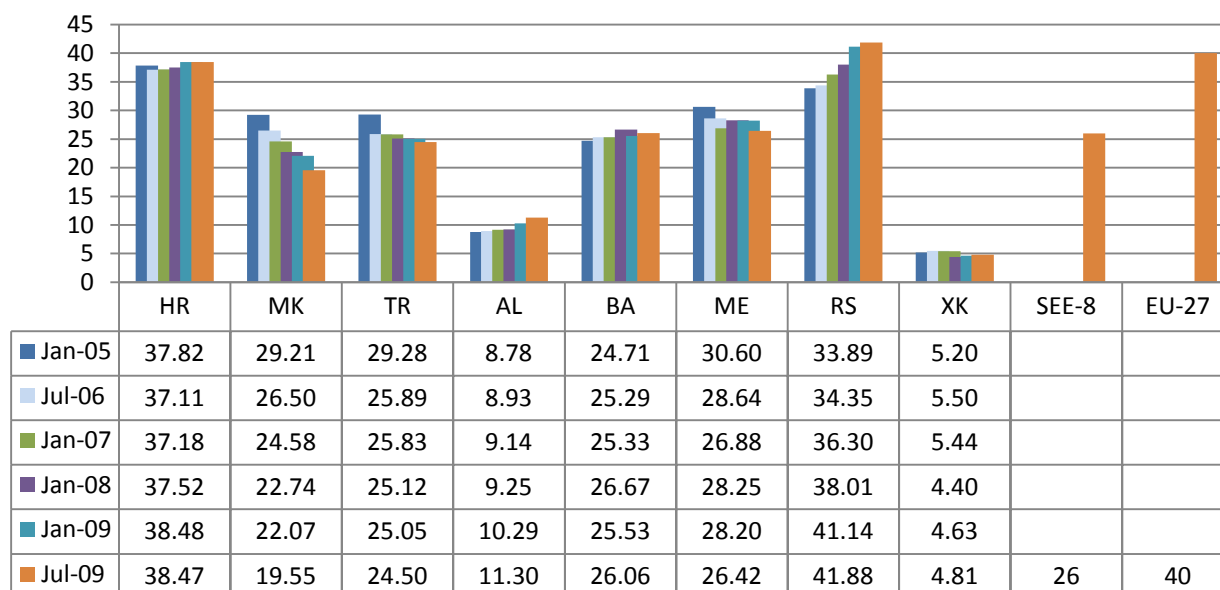


Figure 4 - Fixed lines per 100 population

The process of converting analogue networks to digital has been relatively slow, but should be completed within the period of the present monitoring project. 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.

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 5.4%, Bosnia & Herzegovina at 3.1% and Montenegro at 1.4%.

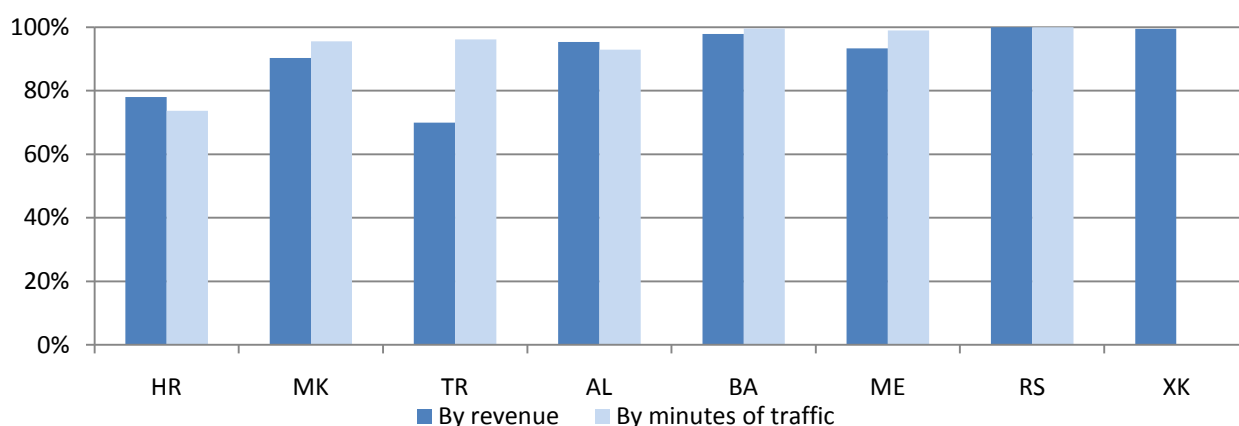


Figure 5 - Incumbent operators' market shares in fixed telephony, July 2009

In all countries, fixed telephony continues to be dominated by the incumbent operators (see Figure 5). Only in Croatia, alternative operators have reached market share above 20%, by revenue and by minutes of traffic. In Turkey, alternative operators control 30% of the fixed telephony market in terms of revenue and less than 4% in terms of minutes of traffic. This is explained by the fact that until May 2009 local telephony services had been closed to completion and Türk Telekom remained the only authorised provider of local calls. In Serbia, fixed voice telephony networks and services had, *de facto*, not been opened to competition until June 2009 when a fixed wireless access licence enabling provision of voice telephony services was issued to Media Works, a major alternative ISP.

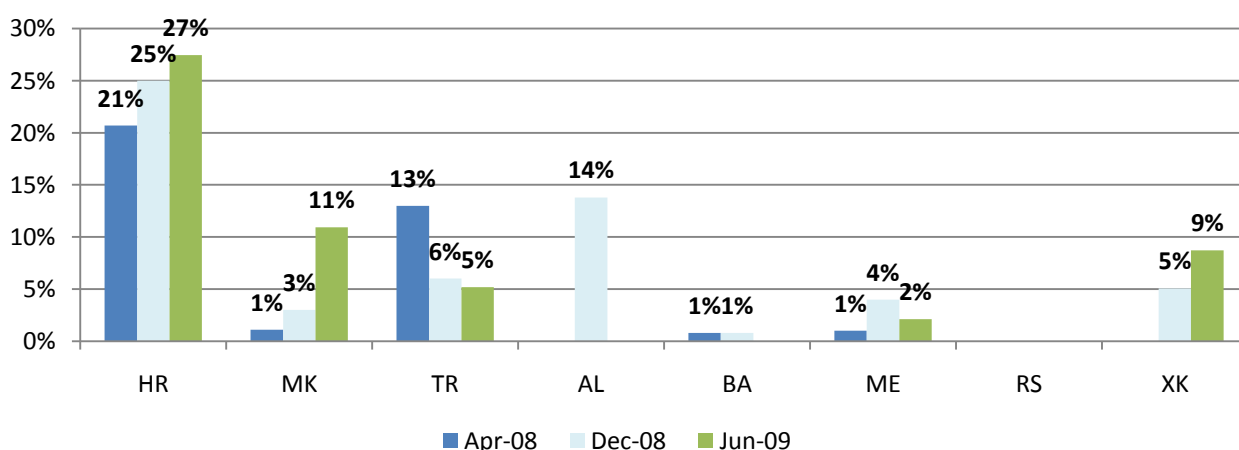


Figure 6 - Subscribers using alternative providers as percentage of total number of fixed lines

In terms of the total number of subscribers using alternative operators by means of carrier selection or carrier pre-selection, wholesale line rental (only available in FYROM) and direct access, there has been a steady growth in Croatia, reaching 27% of total fixed lines, in FYROM and in Kosovo. In Turkey and Montenegro, there have been reductions in the number of subscribers using alternative providers of fixed voice telephony.

3. Mobile market

In July 2009, there were over 90 million subscribers of mobile services. This is below than 92 million reported at the end of 2008 and is mainly due to the fact that several mobile operators, in particular in FYROM, have modified their definitions of “active subscribers” which resulted in some adjustments to the reported figures. This brings the average fixed telephony penetration rate for the eight monitored countries to 94.7%.

This is a sector where competition has been effectively implemented. The rise in mobile penetration rates has been rapid and sometimes dramatic. Croatia and Montenegro exceed the EU-27 average while Serbia is very close to that level.

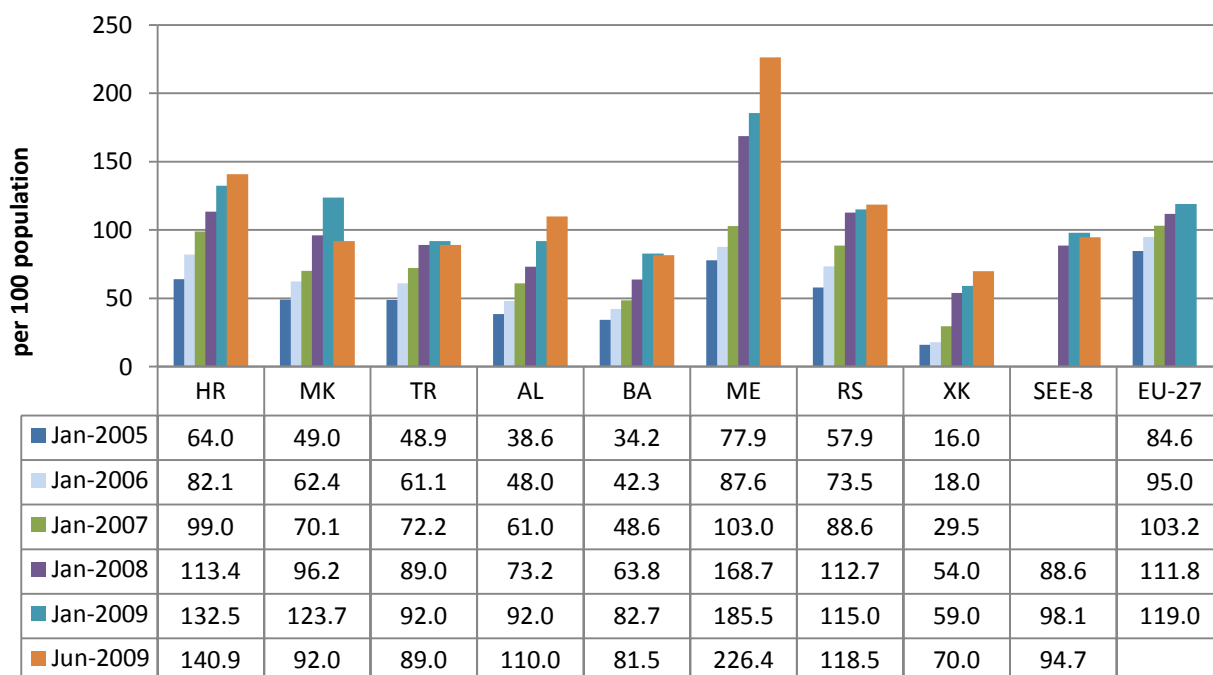


Figure 7 - Growth in mobile penetration (2004-08)

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. In Croatia, the regulator has amended the spectrum licences of the three mobile operators – VIPnet, T-Mobile and Tele2 – extending them until 2024 on technology neutral basis. The Croatian mobile operators are now able to deploy UMTS services in the 900 MHz and 1800 MHz bands, in line with the provisions of the amended GSM Directive.

The majority of the mobile customers use pre-paid services. However, there has been a considerable increase in the numbers of postpaid subscribers during 2009. At the end of 2008, in most countries over 80% of mobile users were prepaid, with the exception of Croatia and Montenegro. With the launch of UMTS services, the number of postpaid subscribers has in particular increased in Turkey (24%) and FYROM (32%). In Kosovo and Albania, nearly all mobile users remain prepaid.

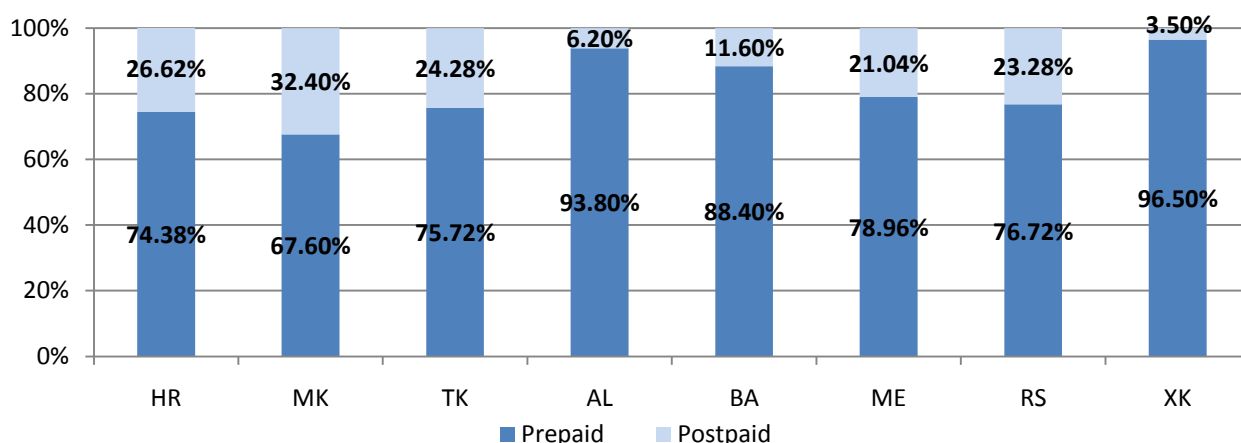


Figure 8 - Mobile subscribers – prepaid and postpaid

Although mobile telephony is de facto the only sector where competition has emerged on any significant scale, most of the national mobile markets remain highly concentrated with established players typically controlling over 80-90% of the market. Only Bosnia & Herzegovina and Montenegro come close to a more even distribution of market shares.

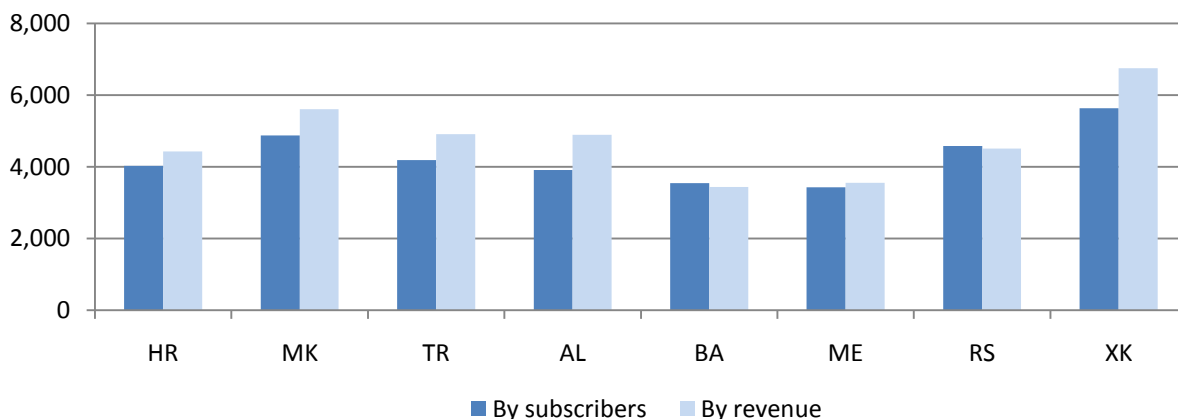


Figure 9 - Mobile market concentration levels, HHI

During 2009 there was a remarkable growth in subscriber figures of the third operators in Albania and in Montenegro. Within one year from the launch of the commercial services, Eagle Mobile in Albania has reached 13.7% market share by subscribers and m:tel in Montenegro – 25.7%. 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, which is reflected in generally lower revenue-based market shares of the new entrants.

4. Internet and broadband

Dial-up is still predominant in Croatia and Montenegro. Bosnia & Herzegovina and Serbia have a majority of broadband, but also retain significant numbers of dial-up lines. FYROM and Turkey have very few dial-up customers, possibly in areas where broadband is not accessible.

The division between broadband and narrowband connections is shown in Figure 10. In line with the EC practice in recent Implementation Reports and statistics, broadband capacity is defined as equal to, or higher than, 144 kbps.

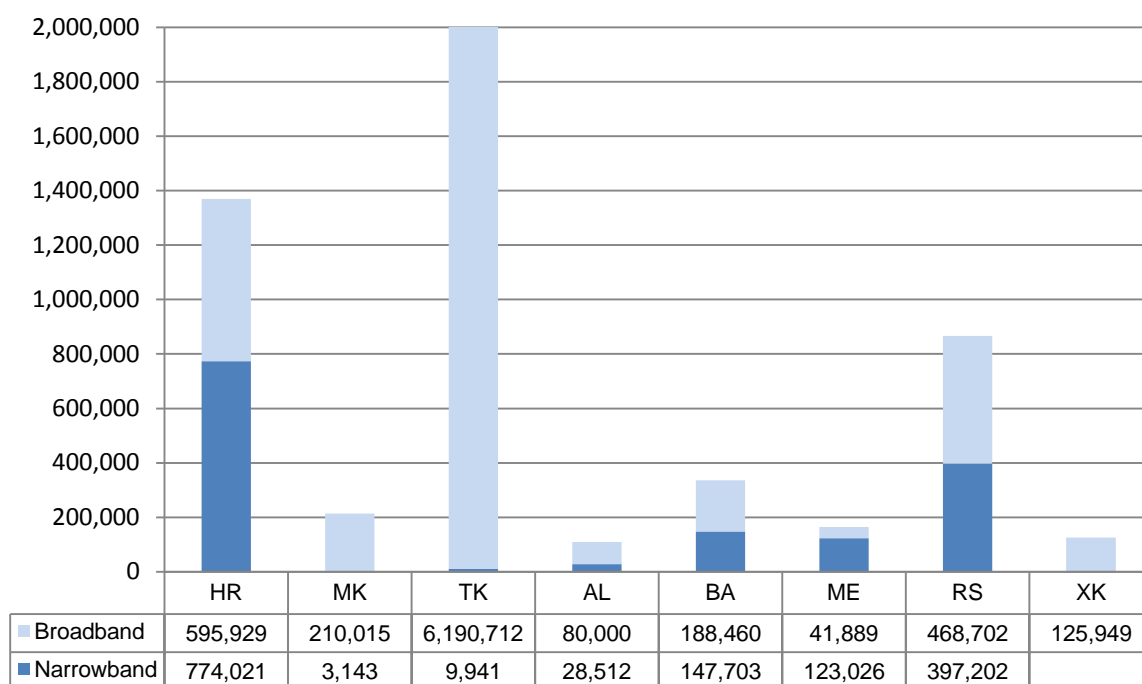


Figure 10 - Number of fixed Internet connections – broadband and narrowband

The number of ISPs active on the market may appear impressive in most of the countries. However, the majority of the retail market is controlled by the incumbent operators, with the exception of FYROM, Albania, Serbia and Kosovo where the incumbents' retail market share is close to 50% or lower.

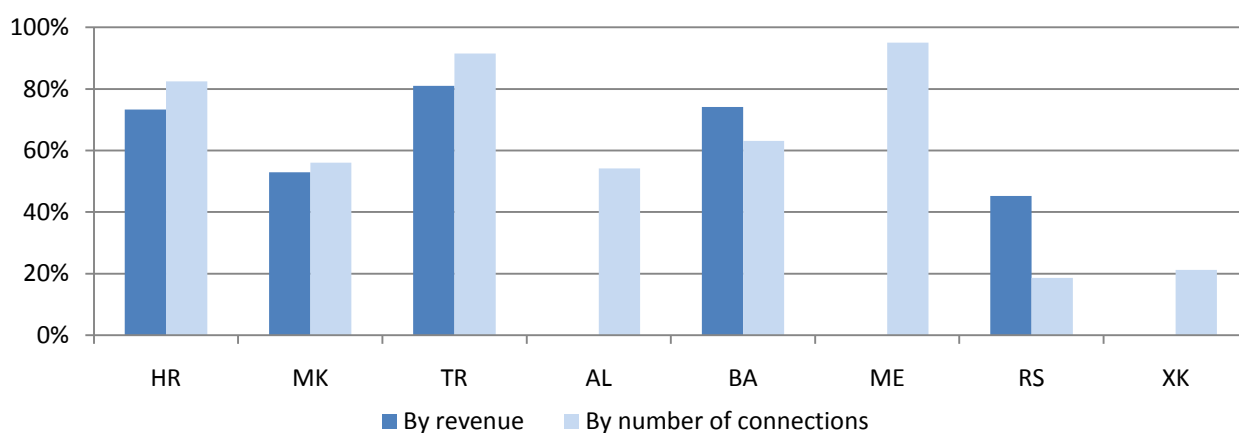


Figure 11 - Incumbent ISP's retail market share

Broadband penetration rate, measured as the overall number of broadband lines divided by the national population, is significantly below the EU-27 average rate that in July 2009 was 23.90%. The average broadband penetration rate for the eight countries was 8.01% (for Albania, Bosnia & Herzegovina and Serbia, the July 1, 2009 figures were not available at the time of data collection). The highest broadband penetration level was observed in Croatia (13.44%), above the level of Romania and Bulgaria that joined the EU in 2007.

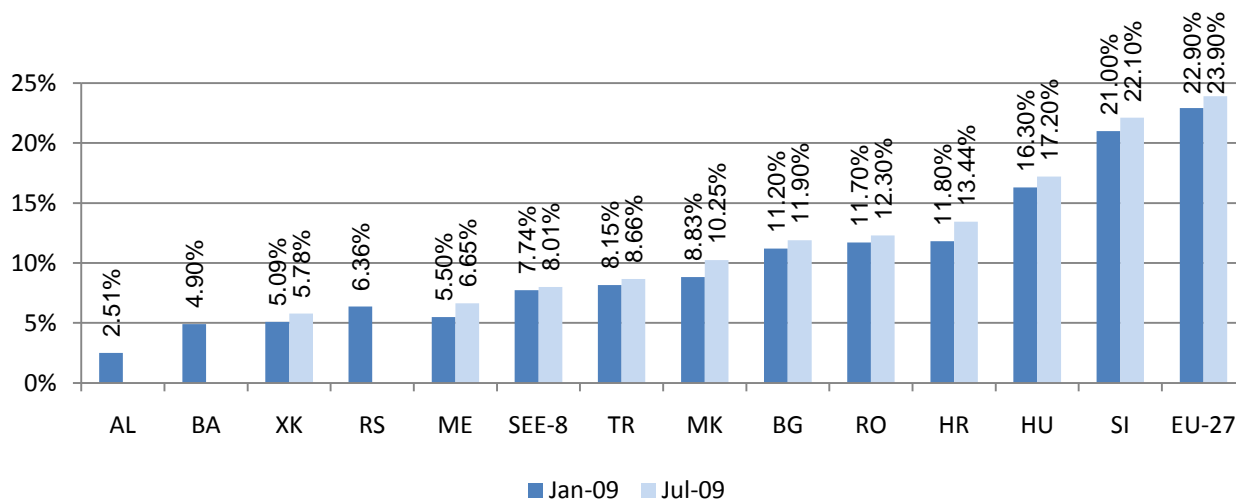


Figure 12 - Broadband penetration rate, January – July 2009

Broadband markets are dominated by fixed incumbent operators in most countries, where xDSL is the main access technology. A different situation is observed in 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 xDSL infrastructure.

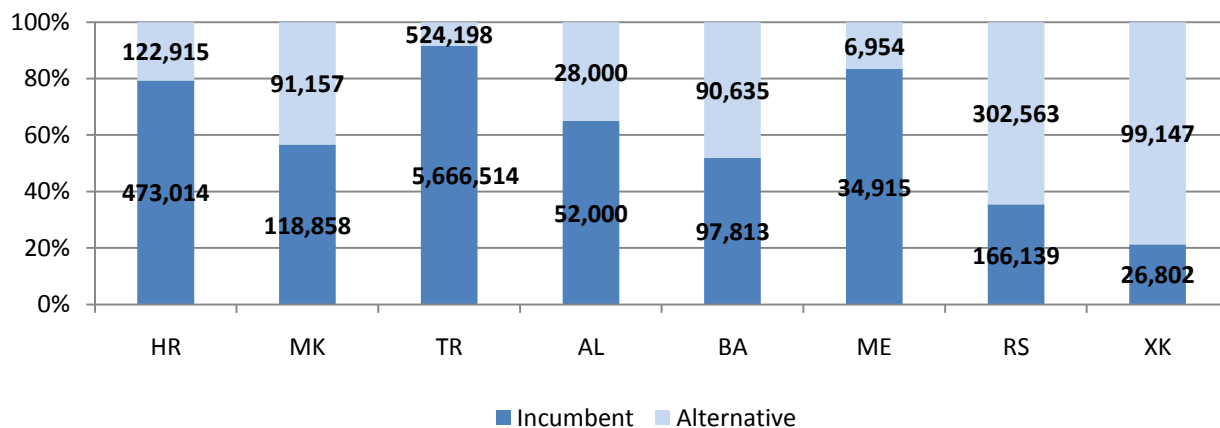


Figure 13 - Fixed retail broadband connections by incumbent and alternative operators

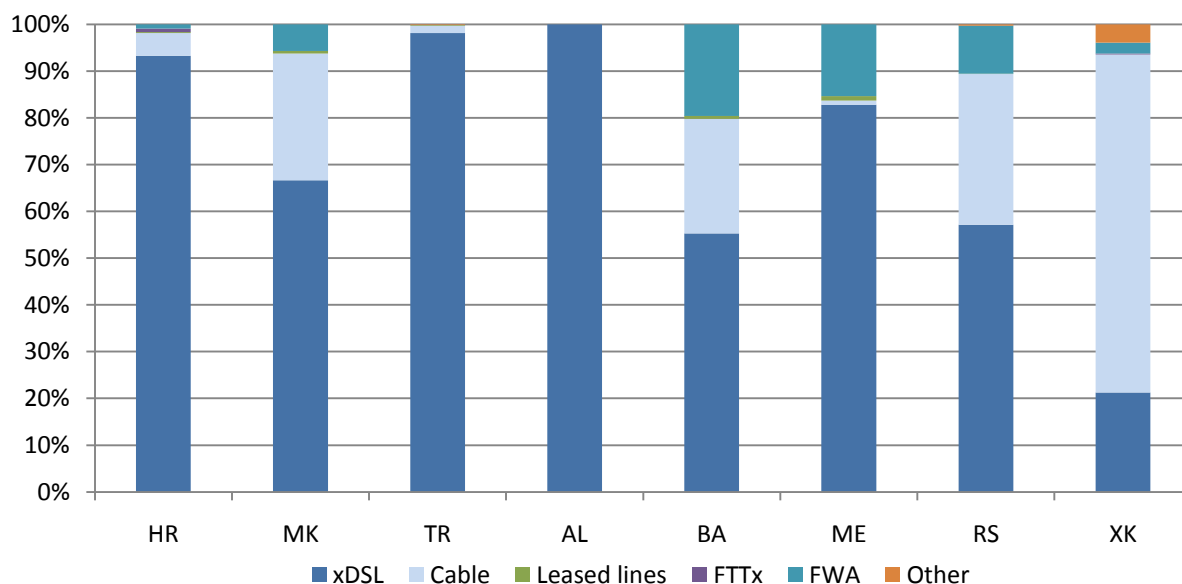


Figure 14 - Fixed retail broadband connections by technology

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 35% 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. By July 1, 2009 Croatia had achieved a significant number of 1,618,700 UMTS subscribers from the three mobile operators, of which 198,600 are active users of dedicated data cards. This corresponds to 4.5% penetration per 100 population, which is slightly above the EU average of 4.2%. The following figures were reported for other countries where UMTS services were launched more recently: 2.7% in Montenegro, 0.2% in FYROM and 0.1% in Turkey. In Bosnia and Herzegovina, the first 3G commercial services were launched in June 2009, so there are no subscriber figures available yet. For Serbia, no recent figures on data card users were available. Albania reported over 4,000 mobile data card users based on GPRS.

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 Srbija, the Serbian incumbent operator, and 97% of AMC, a major Albanian mobile network operator. After Deutsche Telekom had increased its stake in OTE to 25% plus one vote in 2008, all subsidiaries of OTE are indirectly controlled by Deutsche Telekom. Following this transaction, OTE was required by the Macedonian Commission for Protection of Competition to divest its Macedonian subsidiary, Cosmofon. In April 2009, Cosmofon was acquired by Telekom Slovenije, the Slovenian incumbent operator.

In addition to Cosmofon, Telekom Slovenije holds 83% of the largest alternative fixed network operator in FYROM, On.Net. From November 11, 2009 On.Net and Cosmofon operate under the new brand 'One'.

Telekom Slovenije also controls 93.11% of the major alternative provider of fixed and mobile services in Kosovo, IPKO and has invested in Internet service providers in Albania, and Bosnia & Herzegovina.

The Austrian incumbent telecommunications operator, Telekom Austria, through its mobile subsidiary, Mobilkom, controls 100% of the major Croatian mobile operator, VIPNet, and acquired 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 24% up to 100%.

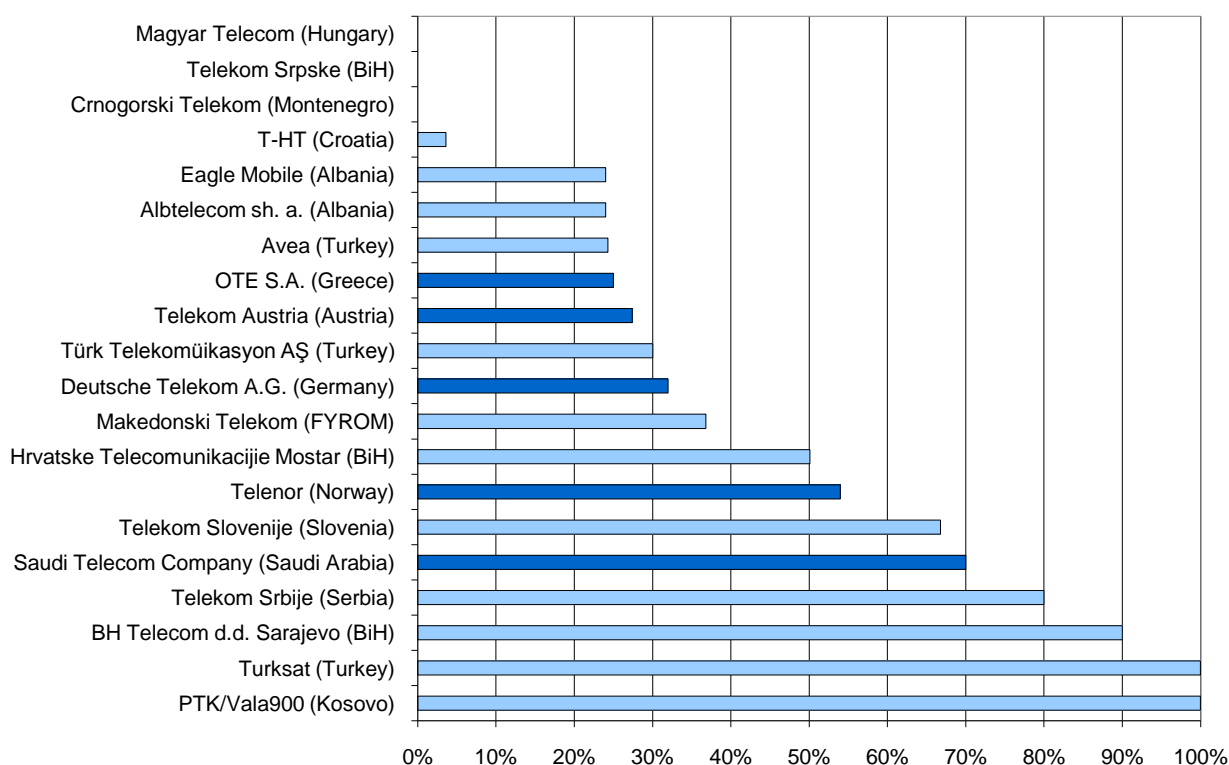


Figure 15 - State ownership of telecommunications operators

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 or the Ministry responsible for telecommunications. 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. The new EU 2009 regulatory framework reinforces national telecoms regulators' independence by eliminating political interference in their day-to-day duties and by adding protection against arbitrary dismissal for the heads of national regulators.

In general, the concept of NRA independence is being progressively introduced in the national regulatory frameworks alongside the adoption of new laws on electronic communications. The key functions of the government and the regulator were redefined in the laws adopted in 2008 in four countries: Croatia, Turkey, Albania and Montenegro. 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 Law on Telecommunications was amended to remove the provisions enabling the ministry to issue instructions to the NRA to amend a licence.

To conclude, the situation is far from being completely satisfactory but there has been a general positive trend with the adoption of a series of new laws aimed at increasing the political independence of the NRAs.

2. Appointment and dismissal of the directors of the NRA

The rules and procedures for the appointment and dismissal of the management of the NRAs are an important factor facilitating the effectiveness of the independence. The EU 2009 regulatory framework introduced an explicit requirement for clear and defined in advance provisions on the dismissal of the management of the NRAs and transparent procedures where the reasons for the dismissal are clearly stated.

This report 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. This mechanism, however, has not been working in practice and since 2007 the present director retains his position without the formal 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 EU 2009 regulatory framework establishes a requirement that NRAs must have their own separate annual budgets and have adequate financial and human resources.

The funds available for the most NRAs are ranging from fairly low €1.5 – 2 million (Kosovo, Albania) to around €13 million (Croatia). Turkey stands out with the budget of €41 million in 2008 that almost tripled in 2009 due to investments in new office facilities.

With the exception of Kosovo, most of the NRAs no longer rely on funding from one-off authorisation fees and have shifted to annual fees from the industry that are typically revenue-based. The other main source of financing is spectrum usage fees, in particular in Albania (96%), Turkey (89%), FYROM (70%) and Croatia (50%).

4. NRA staffing

The average number of staff in 2008 is between 50 and 100 (up to 159 for Croatia) with two exceptions: Kosovo, with a team of 33 and Turkey with a team of over 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. Particularly low numbers of regulatory staff were reported by Kosovo (12) and Montenegro (15) that raise concerns about the lack of competent resources. The situation has somewhat improved in FYROM where during 2009 the number of regulatory experts increased from 14 to 21. The Turkish NRA has 340 regulatory experts at its disposal, followed by Croatia and Serbia with around 50 experts each.

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. A set of amendments to the Macedonian legislation is expected in the first half of 2010 after which the NRA should get powers to impose fines.

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 repeated violation) and Kosovo (€250,000). However, it seems that financial penalties are not used very often, except in Bosnia & Herzegovina.

All the NRAs have the power to suspend commercial offers. However, only in Croatia, Turkey and Serbia, this enforcement power has been applied in practice. The interventions of the NRAs at the retail level are used as a tool to force the SMP operators to adapt their prices and solve a competition problem (price squeeze or predatory pricing). In some cases, the NRAs suspend the retail offer until the retail price is set at a level allowing competitors to enter the market. In other cases, the NRA suspends the retail offer as a leveraging tool in their negotiation of a wholesale reference offer until the wholesale price is set at a level that allows competitors to enter the market.

6. Dispute resolution

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

In general, the deadline for the NRA to resolve a dispute is two to four months. Some countries specify a minimum unsuccessful negotiation period from 45 days up to 90 days before the dispute is passed to the NRA. Two countries impose a short deadline: in Bosnia & Herzegovina, the NRA has to issue a binding

decision within six weeks (in exceptional cases, ten weeks) from receiving the request, in Kosovo, the NRA issues a binding decision within six weeks.

Croatia, FYROM, Albania, Montenegro and Serbia have included a specific provision in the law that obliges the NRAs to publish their decisions. 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 law in Montenegro requires the NRA to publish its action plan along with the financial plan, after both have been approved by the government. In Croatia, the action plan must respect the priorities and the long-term guidelines adopted by parliament following a government proposal. In Albania, Bosnia & Herzegovina and Kosovo, the NRA must plan its activities in accordance with the telecommunications sector policies adopted by the government.

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

8. Appeal procedures

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

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

In order to avoid weakening the NRA and abuse of the appeal procedure, an appeal of the NRA decision should not automatically suspend the application of the appealed decision. In Albania and Kosovo, the NRA decision is automatically suspended for 30 days while an administrative appeal is first considered by the NRA managing board (there is, however, no automatic suspension when the appealed decision is submitted to the court as the next instance). In other countries, there is no automatic suspension of the appealed decision, unless the appeal body or the NRA decides to grant a suspension upon the complainant's request.

The appeal body should be able to consider the merit of the case and not only the procedural matters. This is the case in most of the countries, except FYROM where the court is limited to the correct application of the law. All countries allow a third party to appeal a decision if it has a legal interest in the case.

In order to be effective, the duration of such a procedure must be reasonable. Croatia reported an average duration of the appeal proceeding in the court of five years. 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 three 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.

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

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 law adopted in 2008: frequency allocation is done by the government on the basis of a proposal of the NRA to the ministry, and the NRA assigns frequencies for telecommunications and broadcasting (under the previous law, spectrum assignment for broadcasters was carried out by the broadcasting authority).

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

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 plans

Most of the countries have set a switchover deadline before the end of 2012, except for Turkey with a later deadline of 2014. Croatia has set an early deadline of October 31, 2010. No formal decision on the analogue to digital switchover has been adopted in Albania, although a draft proposal with the deadline of 2012 is now under consideration. 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.⁵³ The networks, however, operate outside of the current legal framework for broadcast services adopted by parliament in May 2007.

Country	Digital switchover date
Croatia	October 31, 2010
FYROM	2012
Turkey	2014
Albania	No decision, 2012 (proposed)
Bosnia & Herzegovina	December 31, 2011

⁵³ <http://www.digitag.org/WebLetters/2008/External-Aug2008.html>

Country	Digital switchover date
Montenegro	December 31, 2012
Serbia	April 4, 2012
Kosovo (under UNSCR 1244/99)	2012

Table 5 - Digital switchover plans

13. Cooperation between the NRA and the National Competition Authority

In Croatia, FYROM and Albania, the NRA and the NCA 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.

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, until April 2007 the high Montenegrin licensing fees, especially for international services, presented a barrier to entry.

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

In Turkey, domestic long-distance and international networks were liberalised on January 1, 2004, while local fixed telephony networks and services were opened to competition only in May 2009 with the entry into force of the general authorisation regime under the new Electronic Communications Law. However, to date there are no alternative network operators active on the Turkish market.

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 introduced a general authorisation regime for any type of electronic communications services allowing 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. Telekom Srbija remained the only licensed public fixed telephony network operator until February 2010, when a second licence for provision of public fixed telecommunications networks and services was issued to Telenor following a public tender procedure. Telekom Srbija 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, which makes the implementation of full liberalisation problematic.

In Kosovo, the liberalisation of fixed networks and services was formally achieved by the Law on Telecommunications of May 12, 2003. However, the NRA only completed the secondary legislation on

authorisations in 2006, allowing market entry for alternative providers. PTK, the incumbent operator, maintained exclusive control over international gateway facilities until December 31, 2007.

2. Liberalisation of data networks and services

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

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

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 five 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, under the new Electronic Communications Law adopted in November 2008 general authorisation regime was introduced 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 €28,000 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 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 in 2008 that in Croatia application procedures for building permits for mobile infrastructure could take up to 359 days and application procedures for location permits – up to 559 days. In Serbia, the same procedures very often could last even longer.

In Croatia the problem has been addressed in the new Electronic Communications Law that prescribes 30 days time limit for issuing building permits by the manager of the public property or the private property owner, and 30 days time limit for issuing location permits by planning authorities. Several initiatives to improve the present situation have been initiated, involving the relevant government bodies, the NRA and the industry. In Serbia, a new law on spatial planning and construction was adopted on August 31, 2009. The law addresses the issue of rights of way for telecommunications infrastructure and simplifies the application procedures establishing a time limit of 60 days for granting rights of way by public institutions, on transparent and non-discriminatory terms. The Albanian Law on Urban Planning sets out the deadline for approval or refusal of construction permit within 45 days from receiving the request, but according to some operators, the timing to obtain digging permits in practice may exceed 12 months.

D. Regulatory framework for market analyses

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

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 has a mixed system where a minimum set of remedies must be

automatically applied to the SMP operator while the NRA can add additional remedies on its own discretion.

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 recent legal changes should bring the applied approaches in four other countries much closer to that of the EU regulatory framework. The new laws adopted in 2008 in Croatia, Albania, Montenegro and Turkey also move away from the 25% rule to a more comprehensive assessment based on the competition law principles and also enable the NRAs to impose regulatory obligations on their own discretion.

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 would have been required to complete its first market analysis within one year from the entry into force of the law (by August 27, 2009) which did not take place in practice. Also in FYROM, the requirement for the NRA to carry out market analyses once every year has not been met in practice and its removal is now being considered in draft amendments to the Law on Electronic Communications.

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 amendment of the regulatory framework and its effective application. For many NRAs in the monitored countries, 2009 was a dynamic year when complex market analysis procedures were one of the central tasks.

In Croatia, the NRA completed its analysis of nine markets in July 2009. In identifying the relevant markets, the NRA 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.⁵⁴ The fixed incumbent operator, T-HT was found to have SMP in the fixed wholesale markets for broadband access, infrastructure access, call origination and call termination. In the market for wholesale call termination in public fixed networks, in addition to T-HT eight alternative operators were found to have SMP. Three mobile operators, T-Mobile, VIPnet and Tele2 were designated to have SMP in the wholesale call termination on individual mobile networks.

Four of the nine analysed markets were found not satisfying the three criteria test and therefore not subject to any regulation: public voice services in mobile networks, wholesale SMS termination on individual mobile networks, wholesale access and call origination from public mobile networks and wholesale transit services in public fixed network. Still to be analysed are retail markets for access to public fixed telephony services at fixed location for residential and business customers, minimum set of leased lines and wholesale markets for terminating and trunk segments of leased lines.

In FYROM, in 2009 the NRA analysed fixed retail markets for access and call services, retail and wholesale leased lines, wholesale voice call termination in individual mobile networks and wholesale national market for international roaming. The market analysis findings have been subject to consultation with the industry and the national competition authority and the final decisions are expected to be adopted shortly.

In Turkey, the NRA has recently carried out a new round of market analyses. In line with its first round, the analysed markets correspond to 16 relevant markets of the 2003 Commission recommendation on relevant markets (i.e. excluding the two wholesale markets for international roaming and broadcasting transmission services). Final decisions on all markets, with the exception of the wholesale fixed transit services (expected to be concluded shortly), were adopted between December 2009 and January 2010. The NRA retained the SMP designations of the incumbent Türk Telekom and the full set of regulatory obligations imposed in the fixed retail and wholesale markets. In addition, in the market for call termination on individual fixed networks, ICTA designated all alternative operators that 'have been assigned fixed subscriber numbers' as having SMP and subject to lighter asymmetric regulatory obligations. Currently

⁵⁴ The three cumulative criteria for ex ante regulation are: high and non-transitory barriers to market entry; no tendency towards effective competition over time; and insufficient ex post application of competition law by itself is to regulate the market.

there are no alternative network operators active on the Turkish market, so the decision takes a forward-looking perspective on the market developments.

In the two wholesale mobile markets, ICTA also retained the previous SMP designations: Turkcell in the mobile access and call origination; and Turkcell, Vodafone and Avea plus potential new entrant mobile operators – in call termination on individual mobile networks.

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: fixed retail access and call services, wholesale call termination on geographic numbers, wholesale call origination, national and international transit services. The regulatory obligations include: CS/CPS, access and interconnection, non-discrimination, transparency, including RIO, price control, accounting separation and cost accounting.

A new round of market analyses was started in the second half of 2009 covering two wholesale mobile markets for call termination, access and call origination, the retail mobile market, the retail market for fixed access and call services and wholesale markets for fixed interconnection, as well as retail and wholesale markets for leased lines. The analyses were all published for public consultation but have not been completed.

In Bosnia & Herzegovina, in December 2009 the NRA designated the three incumbent operators, BH Telecom, Telekom Srpske and HT Mostar, as having SMP in the markets for public fixed telephone networks and services, for public mobile telephony services, and for leased lines. The scope of regulatory obligations includes non-discrimination, cost orientation, transparency, access and interconnection, price control, publication of reference offer, and, for fixed networks, provision of CS/CPS.

In Serbia, the NRA has identified and analysed two broad markets that do not reflect either the EU 1998 or 2003 frameworks. As a result, Telekom Srbija was designated as having SMP in the market for public fixed telephone networks and services, and SBB, the major cable TV operator, as having SMP in the market for radio and television programme distribution via cable network. In 2008, 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.⁵⁵ No new market analysis has been undertaken by RATEL so far.

In Montenegro, the 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. In 2009 the NRA started the market analyses for the relevant product markets according to the 2007 Commission recommendation of 2007, which are still ongoing.

In Kosovo, no comprehensive market analyses have been carried out by the NRAs yet. 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.

E. Competitive safeguards

1. Competitive safeguards overview

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

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

⁵⁵ http://www.ratel.rs/editor_files/File/Regulativa/Odluke/ODLUKA-analiza%20trzista.pdf

Enlargement Countries Monitoring Report III – March 2010

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

Table 6 - 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 CS in Montenegro.

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

Table 7 - 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 one alternative provider.

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

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

In Montenegro, CS/CPS was introduced in December 2007 and applies to all fixed and mobile public network operators. However, 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 not yet implemented.

In Serbia, regulations on CS/CPS were 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, FYROM and Turkey have so far implemented number portability for both fixed and mobile networks. Turkey has implemented fixed number portability in September 2009.

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 October 2009, the Croatian NRA reported almost 317,000 ported fixed numbers and 86,500 mobile numbers.

In FYROM, number portability in fixed and mobile network was implemented in September 2008. The initial take-up, in particular for mobile networks, has been limited due to the one-off porting fee of around €10.00 that mobile operators charged to end-users. Following NRA decision of June 2009, maximum one-off porting fee for both fixed and mobile numbers has been brought to €3.27 (excluding VAT). As a result, statistics have nearly doubled over the past nine months. As of March 2009, the NRA reported over 14,456 ported fixed numbers and a bit less than 4,700 ported mobile numbers.

Turkey implemented mobile number portability in November 2008. It appears to have been a particular success with about 7.5 million mobile numbers ported in one year, equivalent to 11.5% of total mobile numbers. Fixed number portability was implemented in September 2009 with a negligible take-up so far.

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 were due to be implemented by December 2009, but are still unavailable.

No clear deadlines have been established for the implementation of number portability in Montenegro, Serbia and Kosovo. In Serbia, the implementing regulations on number portability that were expected before the end of 2009 were only adopted in February 2010. Moreover, they only apply to mobile networks and envisage a late implementation deadline of January 1, 2011.

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 078.⁵⁶ In Turkey portability of nomadic VoIP for non-geographic numbers is available.

4. Reference interconnection offers

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

RIOs have been established and published by the fixed incumbent operators in all 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 October 2009. 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 August 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. The last amendments to the current RIOs were published in December 2009.

In Albania, Albtelecom's new RIO was approved by the NRA and is valid from February 2009. The RIOs of the two 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, and were last revised in November 2009.

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

⁵⁶ 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.

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 four countries in the region have implemented LLU and have RUOs in place: in Croatia since October 2005, in FYROM since May 2006; in Turkey since November 2006, and in Bosnia & Herzegovina, since January 2010.

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 116,000 unbundled loops as of October 2009, representing 6.8% of fixed lines. In Croatia there are six LLU agreements in place. Although Turkey has had a RUO since November 2006 and there are nine LLU agreements, only about 14,000 loops have been unbundled as of October 2009 on a network of around 18 million lines. In FYROM, there is only one agreement on LLU between Makedonski Telekom and the major alternative operator On.Net (now One), owned by Telekom Slovenije. Around 4,000 loops had been unbundled there as of October 2009, a modest take-up which however nearly doubles the figures reported in early 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, FYROM and Turkey 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.

In FYROM, Makedonski Telekom offered until recently 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 first reference offer was approved by the NRA in July 2009 enabling handover at DSLAM, ATM and IP levels.

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. From 2008 there has been a massive migration by alternative operators from the resale product to bitstream access with IP handover, plus a significant number of new bitstream access connections, a process still ongoing. As of October 2009 there were almost 400,000 bitstream access lines with IP handover and only 6,183 resale lines. For comparison, at start of 2008, there were only 1,200 bitstream access lines and 200,000 resale lines. All current reference offers for wholesale bitstream access and resale were last revised in March 2009.

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. As of October 2009, the take-up of WLR was 7,990 lines, showing a considerable growth since January 2009 when only 1,233 lines had been reported. In Turkey, the obligation to provide WLR was imposed on Türk Telekom in December 2009, following the analysis of fixed retail access markets, but not implemented in practice yet.

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 had a temporary national roaming requirement to facilitate the entry of the new mobile operator. Bosnia & Herzegovina had national roaming requirements in order to ensure full national coverage for the three MNOs operating in three different entities. Now in both countries, national roaming agreements continue to exist, but on commercial basis. In FYROM and Serbia, the new entrant mobile operators (both are subsidiaries of 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 Albania, an Access and Interconnection regulation provides an obligation on MNOs with SMP to provide access to networks for MVNOs, but in practice there are no MVNOs operating in Albania.

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. In Bosnia & Herzegovina, the NRA has developed guidelines for introducing MVNO and SP operations and relevant access provisions are expected to be introduced in the first RIOs of mobile operators to be published in 2010.

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

When an operator is designated as having SMP in a wholesale market, fixed or mobile, NRAs are entitled under article 13 of Access Directive 2002/19/EC to impose a cost accounting obligation to ensure that operators subject to price regulation follow fair, objective, and transparent criteria when allocating their costs to services. The Directive does not mandate any specific price control methodology. The European Commission recommendation on the regulatory treatment of fixed and mobile termination rates adopted on May 7, 2009, envisages that by 2012 NRAs should set both FTRs and MTRs using a bottom-up forward-looking long-run incremental costs (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 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.

In FYROM 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. Currently the NRA is in process of developing of a bottom-up LRIC model for fixed and mobile networks.

In Albania, the NRA is currently developing bottom-up LRAIC models for fixed and mobile networks.

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 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. Subscriber directories

a) Subscriber inclusion in directories

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

In all monitored countries, subscribers have the right to be included in the directory, and in most countries it is explicitly stated that operators may not charge for inclusion. Subscribers also have the right not to be included in the directory. 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.

b) Availability of directories and directory enquiry services in practice

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

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

Such a comprehensive directory can be established in two ways:

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

In all countries 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.

4. 112 emergency number

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

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

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

In all of the other countries other number ranges are used. In all countries emergency services must be offered free of charge both by fixed and mobile operators. In Montenegro the obligation on fixed operators only regards the incumbent.

Caller location information for emergency services is provided only in Croatia, Turkey and Bosnia & Herzegovina.

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 8 - Traffic and location data

6. Quality of service

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

QoS obligations exist in most of the monitored countries and the ETSI standards are followed for the method of measurements. However, only one or two of the countries monitor and ensure (e.g., with use of penalties) compliance, as was the intention of the Universal Service Directive. Only Croatia has so far published the actual performance against the targets set out in the QoS requirements for the universal service provider.

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 trends⁵⁷:

- *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 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. In Albania, the monthly rental increased by 49% between January and October 2009, although the overall level still remains very low. In Serbia, monthly rentals remain the lowest in the region. There was no change in 2009, but some increases are expected to take place in the first half of 2010.

⁵⁷ http://ec.europa.eu/information_society/policy/ecommm/implementation_enforcement/index_en.htm

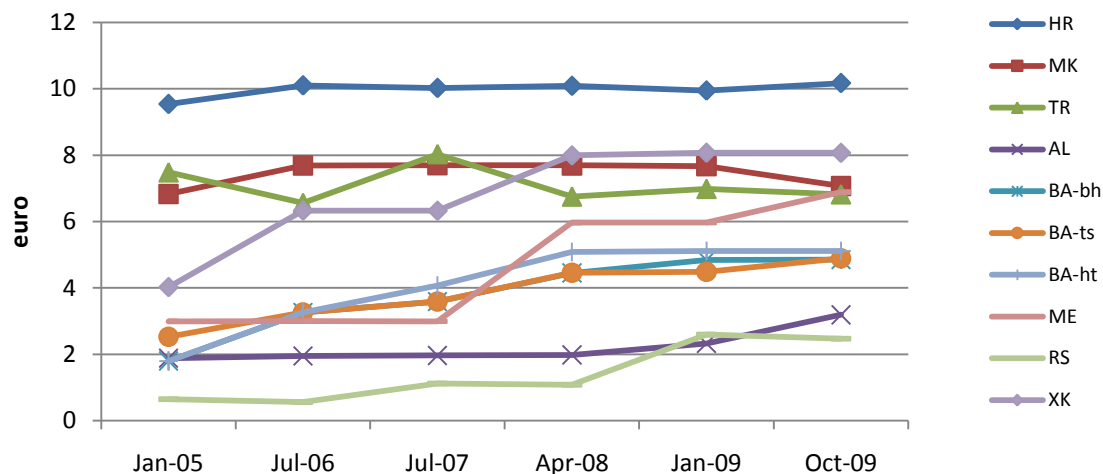


Figure 16 - Residential line rentals by incumbent, including VAT, 2005-2009

Local call tariffs in most SEE countries have been quite stable during the first 10 months of 2009, with the only exception of Albania, where the price of local on-net calls increased by 113%. 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.

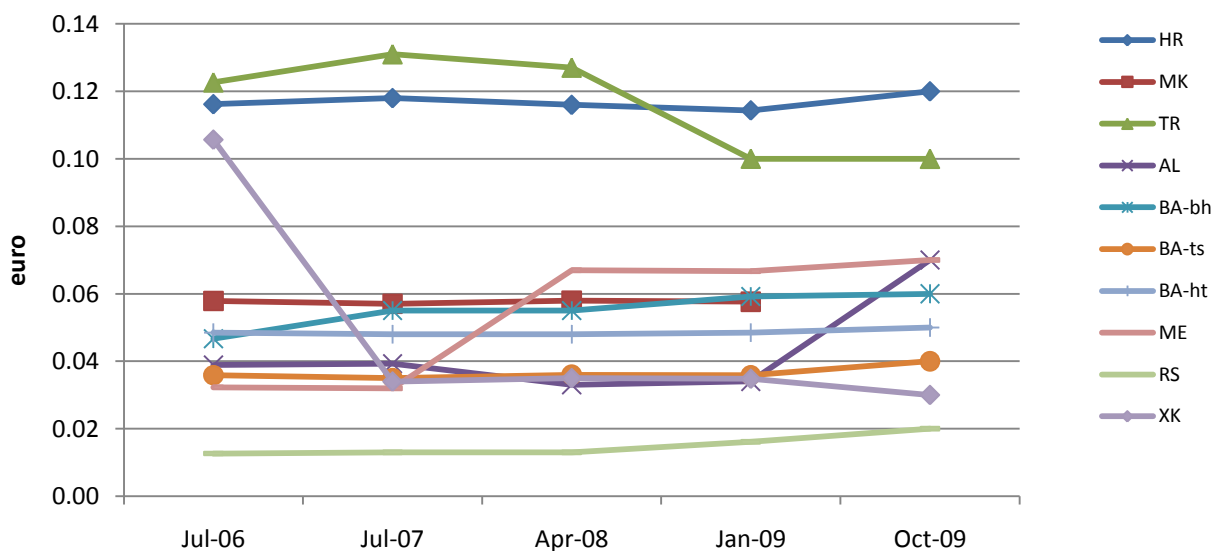


Figure 17 - Residential charges for a 3-minute local call by incumbent, including VAT, 2006-2009

Meanwhile, as the figure below shows, the cost of making a 3-minute national long distance call has decreased significantly only in Albania: 37% decrease reported between January and October 2009. In spite of the sharp decrease, Albanian consumers still pay the most, while consumers in Serbia and Kosovo appear still to enjoy national call tariffs which are significantly below costs.

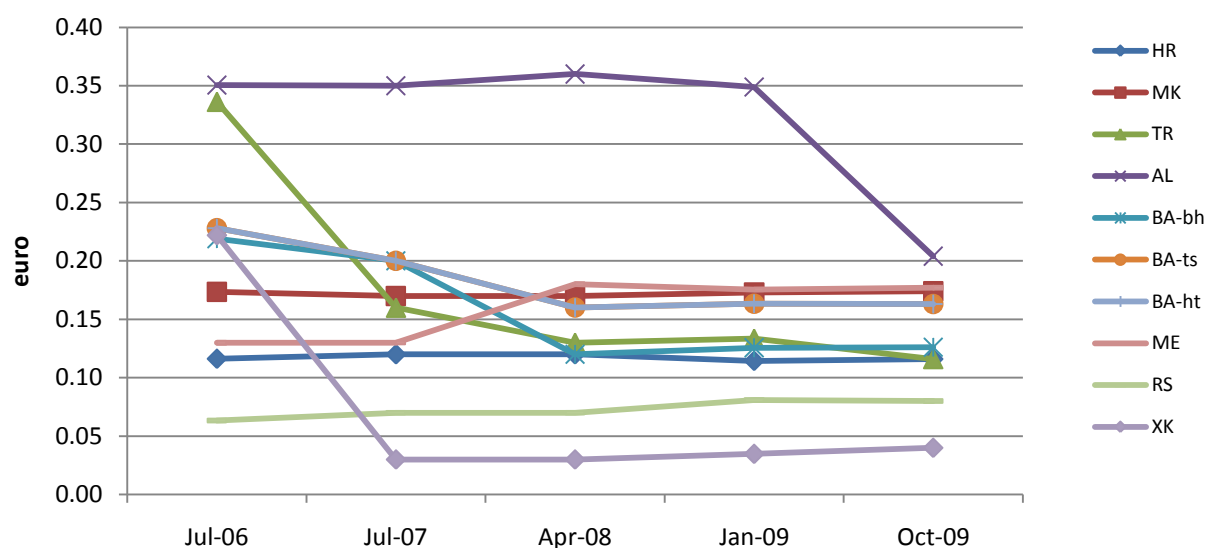


Figure 18 - Residential charges for a 3-minute long distance call by incumbent, including VAT, 2006-2009

The level of charges for fixed to mobile calls remained relatively stable in most of the monitored countries, with the exception of Albania and Kosovo. In Albania, fixed to mobile charges have been decreasing since 2008, and reached a further 16% decrease between January and October 2009. In Kosovo, the cost of fixed to mobile calls decreased by 37% since January 2009.

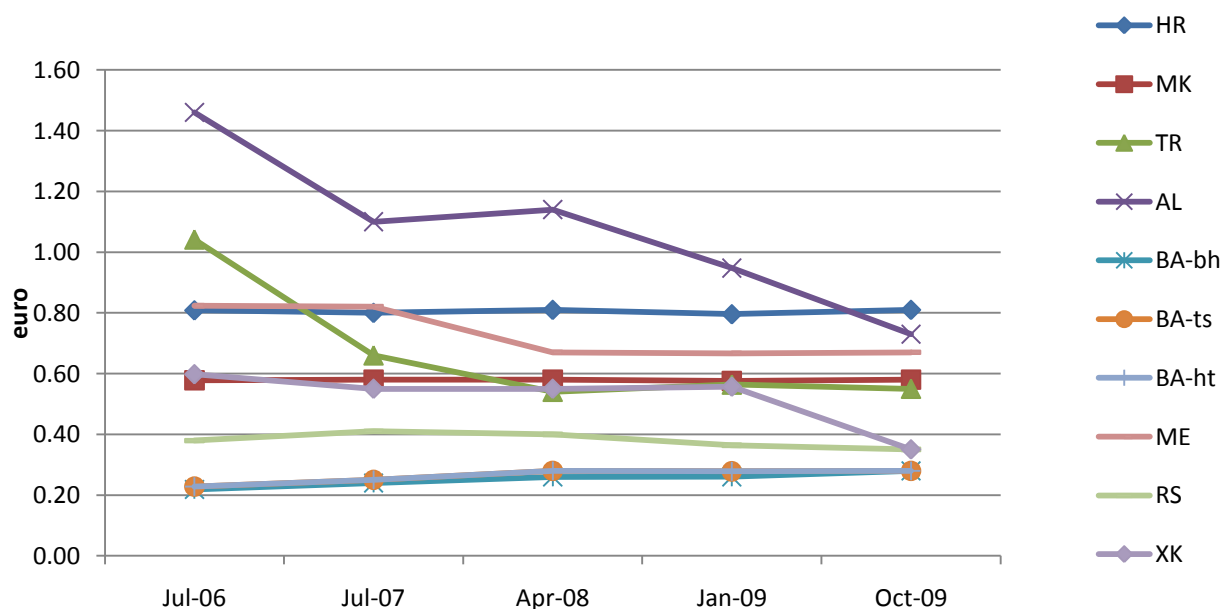


Figure 19 - Residential charges for a 3-minute fixed to mobile call by incumbent, including VAT, 2006-2009

For international calls, all incumbents appear to be responding to more competitive conditions. Tariffs have shown a reducing trend with further decreases between January and October 2009, as illustrated by the call charges to the UK. The most significant decreases were observed in Montenegro (22% by Crnogorski Telekom), Bosnia & Herzegovina (22% by BH Telekom) and Albania (10% by Albtelecom).

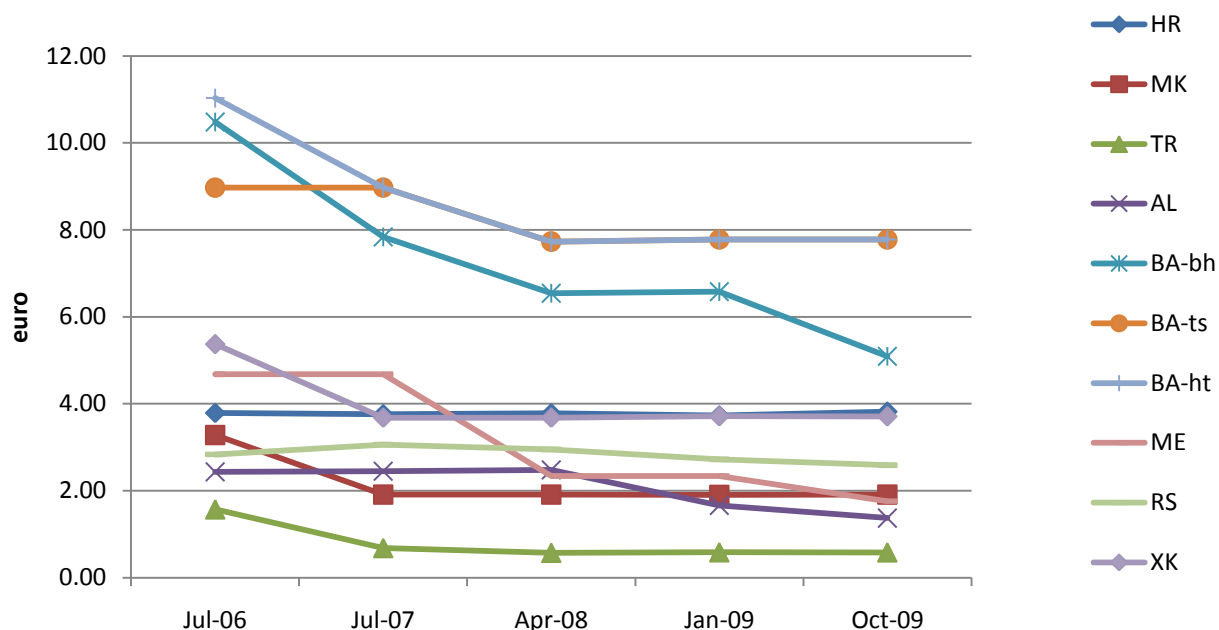


Figure 20 - Residential charges for a 10-minute international call to UK by incumbent, including VAT, 2006-2009

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

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

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

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

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

2. Regulation of retail tariffs

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

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

Three of the eight countries have used a price cap approach – FYROM, Turkey and Albania – applying “CPI±X” methodologies. In FYROM, under the concession agreement of the incumbent operator the overall price cap CPI+6% applied to the basket of residential fixed tariffs, with two sub-caps – CPI+35% for local and long-distance calls and 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.

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

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

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

No retail price regulation is currently applied in Montenegro. Following a consultation on a draft rulebook for tariffs in public telecommunication service (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
Serbia	€2.472	€1.24	€2.09
Albania	€3.19	-	€10.03
Bosnia & Herzegovina	€4.85-€5.11 (including €1.92-€3.20 of calls)	€2.17 (including €1.92-€3.20 of calls)	€8.36 (including €1.92-€3.20 of calls)
Turkey	€6.82	-	€5.90
Montenegro	6.98 (including €1.30 of calls)	€3.56	€5.10
FYROM	€7.70	€4.24	€11.44
Kosovo	€8.07 (including €10.00 of calls)	€3.47	€21.74 (including €100.00 of calls)
Croatia	€10.17 (including €1.67 of calls)	€5.086 (including €3.39 of calls)	€9.65

Table 9 - 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. During 2009, the only significant changes took place in Albania, with increases by 49% and 27.4% were reported respectively for residential and business monthly rental charges.

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.

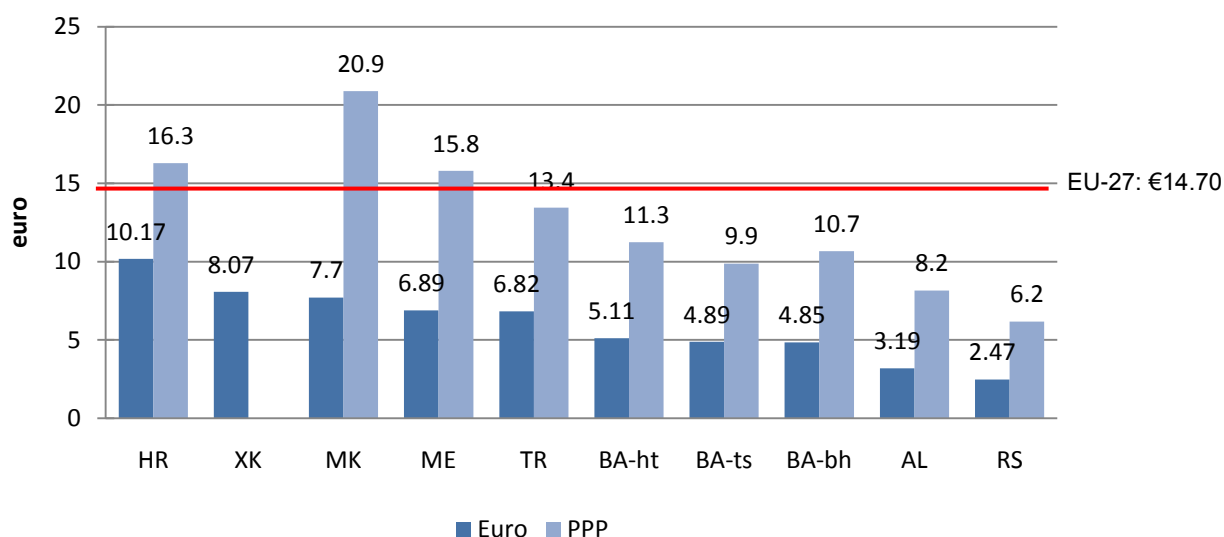


Figure 21 - Standard residential monthly rental in €/PPP and nominal euro, including VAT

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

4. One-off connection charges

This section analyses the initial charges for the new line connection and reconnection for residential and business subscriptions. The new line connection charge is the price of a new installation in a location that has not been connected before. The reconnection charge is the price for the connection of an existing subscriber line to a new subscriber, for example when a new family takes over an apartment where the previous occupant was already connected. The table below shows the applicable charges ranking from the cheapest to the most expensive reconnection charge.

Country	Residential (including VAT)		Business (excluding VAT)	
	New line connection charge	Reconnection charge	New line connection charge	Reconnection charge
Kosovo	€10.00	€2.02	Same as residential	Same as residential
Turkey	€3.05	€3.05	Same as residential	Same as residential
Serbia	€63.38	€4.72	€107.00	Same as residential
FYROM	€23.92	€7.70 (monthly rental)	Same as residential	€11.40 (monthly rental)
Croatia	€84.77	€10.17	Same as residential	Same as residential
Montenegro	€64.99	€14.63	Same as residential	Same as residential
Bosnia & Herzegovina	€36 to €54	€36 to €54	Same as residential	Same as residential
Albania	€62.43	€62.43	Same as residential	Same as residential

Table 10 - Connection charges

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

In general, a reconnection charge is significantly cheaper than a new installation (as would be expected by the lower costs involved). The exceptions are Albania, Bosnia and Herzegovina and Turkey where the prices are the same. Albanian charges are still the highest among the monitored countries, although a 42% decrease was introduced in 2009.

Initial connection charges are higher than monthly rental charges, ranging from 25% difference in Kosovo to being 20 times greater in Albania. The exception is Turkey, where connection charges are actually 50% lower than monthly rental charges.

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

There is very little real competition in the local calls market, possibly reflecting that incumbent operators in the monitored countries traditionally under-priced local calls, making it difficult for alternative operators to compete. In Croatia, FYROM, Turkey and Bosnia & Herzegovina alternative service providers are quoting cheaper local call prices. In Albania, Montenegro and Kosovo, the local call tariffs of alternative operators by far exceed the incumbents' prices. There are no fixed network local call competitors in Serbia.

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

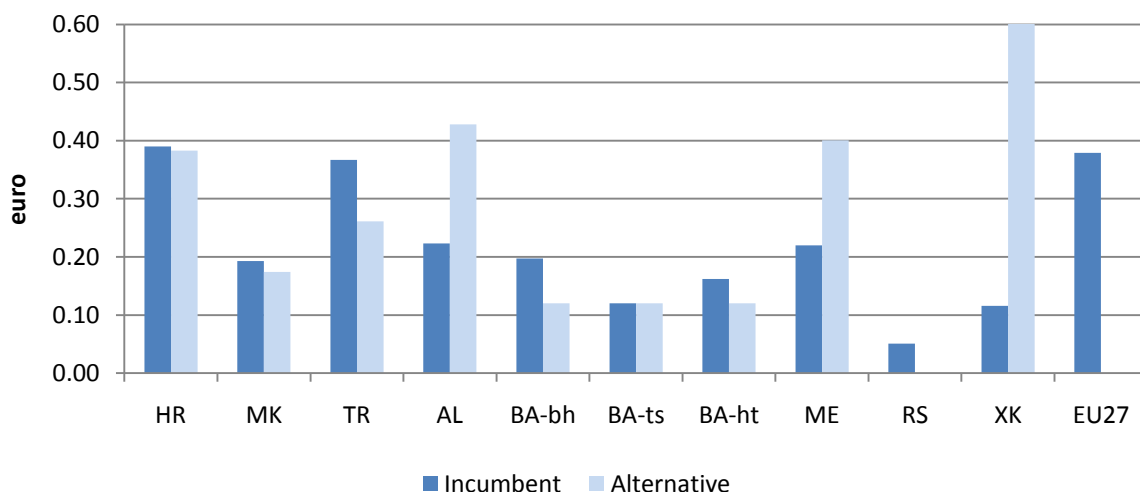


Figure 22 - 10-minute local call charges in euro for residential users, including VAT

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

In FYROM, Turkey, Bosnia & Herzegovina 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.

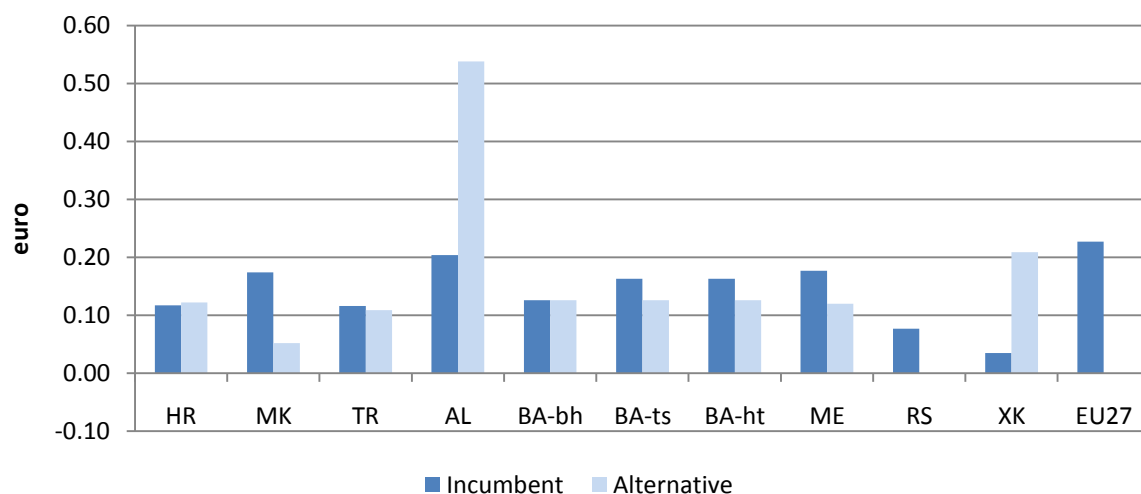


Figure 23 - 3-minute national call charges in euro for residential users, including VAT

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 €0.28 in Bosnia & Herzegovina to €0.81 in Croatia.

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

Country	3 minute fixed to mobile call	3-minute fixed national call	Price Ratio
Bosnia & Herzegovina	€0.28	€0.13-0.16	1.7
FYROM	€0.58	€0.17	3.3
Albania	€0.73	€0.20	3.7
Montenegro	€0.67	€0.18	3.8
Serbia	€0.35	€0.08	4.5
Turkey	€0.55	€0.12	4.7
Croatia	€0.81	€0.12	7.0
Kosovo	€0.35	€0.04	9.9
Weighted SEE Average	€0.54	€0.12	4.5

Table 11 - Comparison of incumbents' charges for residential fixed to mobile charges and charges for national fixed calls

The weighted average for the SEE region is €0.54 for a 3-minute fixed to mobile call, which is 4.5 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, where alternative operators' charges are considerably 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 13 – 29% lower than the incumbent's prices.

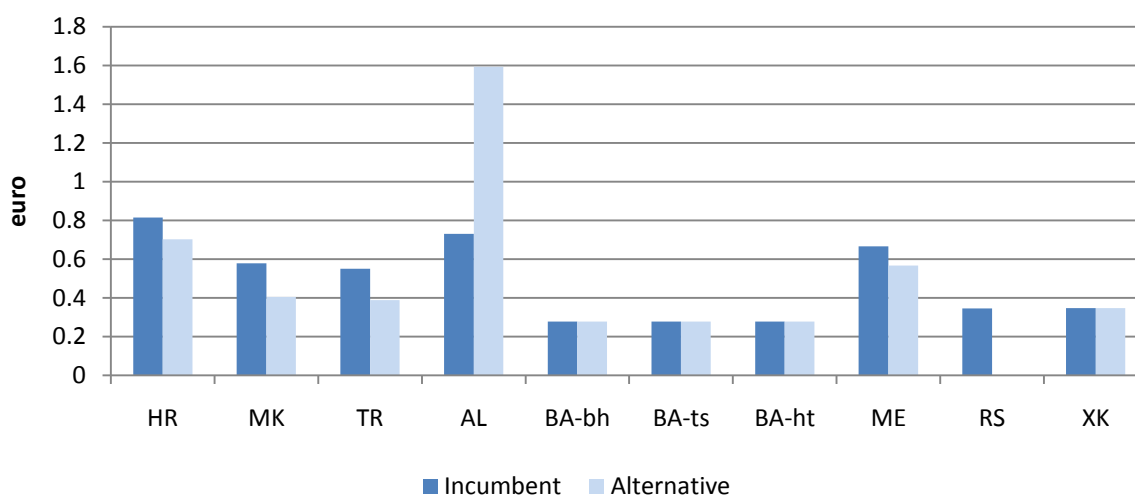


Figure 24 - 3-minute fixed to mobile call charges in euro for residential users, including VAT

8. International tariffs

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

Alternative operators are offering significantly lower prices than the incumbents for calls to the UK (average discounts across the region are 46% for residential customers and 38% for businesses) and to the USA (average discounts are 37% both for residential and business customers). 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.

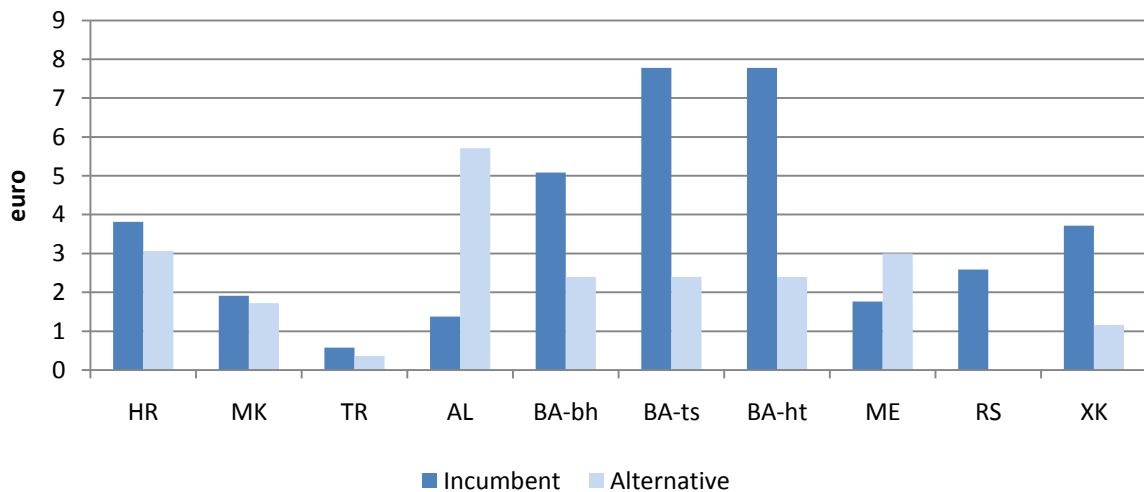


Figure 25 - Residential charges for a 10-minute call to the UK in euro, including VAT

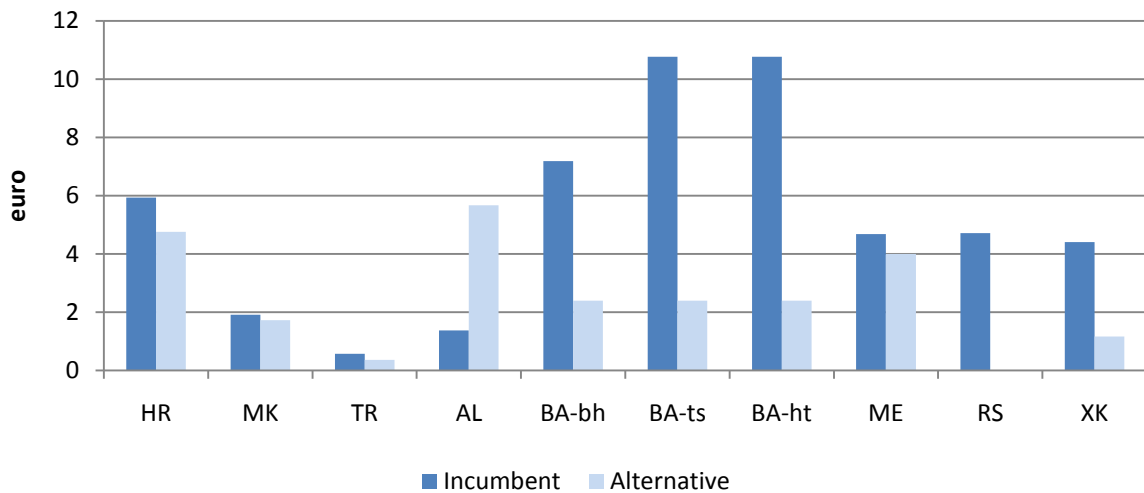


Figure 26 - Residential charges for a 10-minute call to the USA in euro, including VAT

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 that can be directly compared with the EU results which also use the same methodology. 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 the two largest mobile operators in Turkey, Vodafone Albania, Vipnet in Croatia, and HT Mostar in Bosnia & Herzegovina.

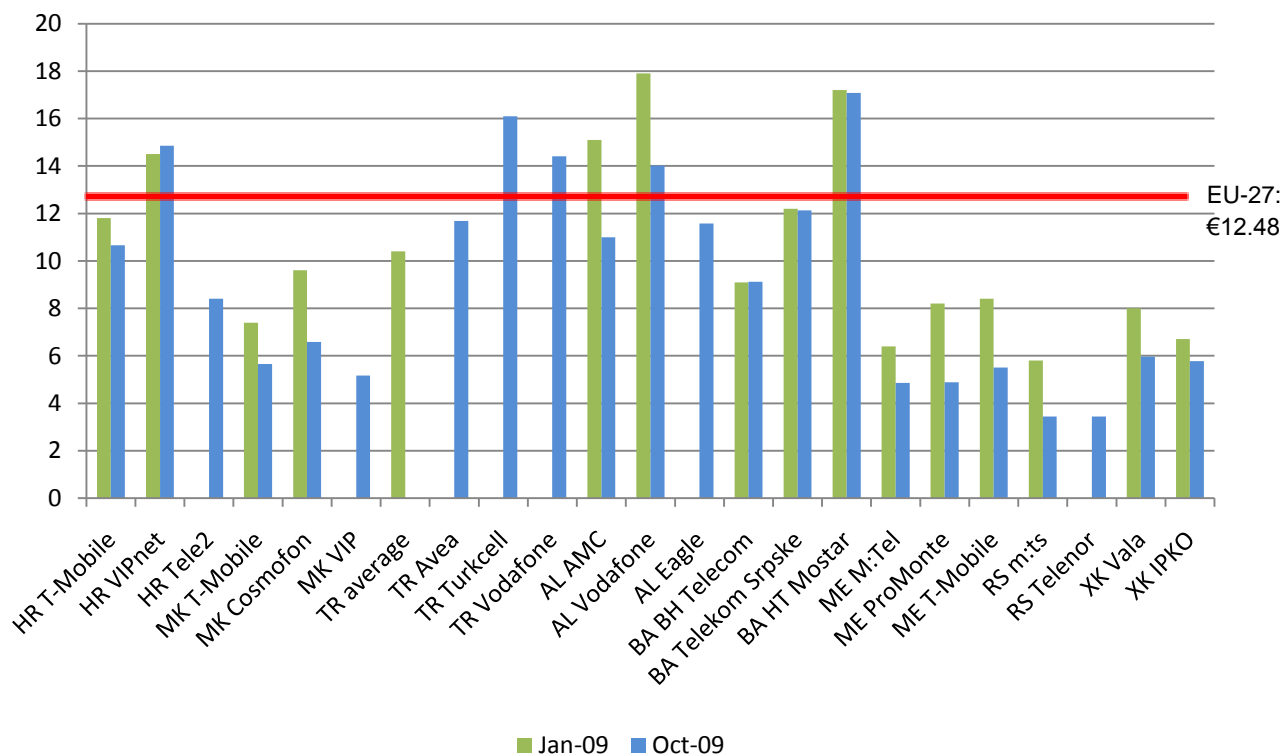


Figure 27 - Low usage basket in euro per month, including VAT

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.

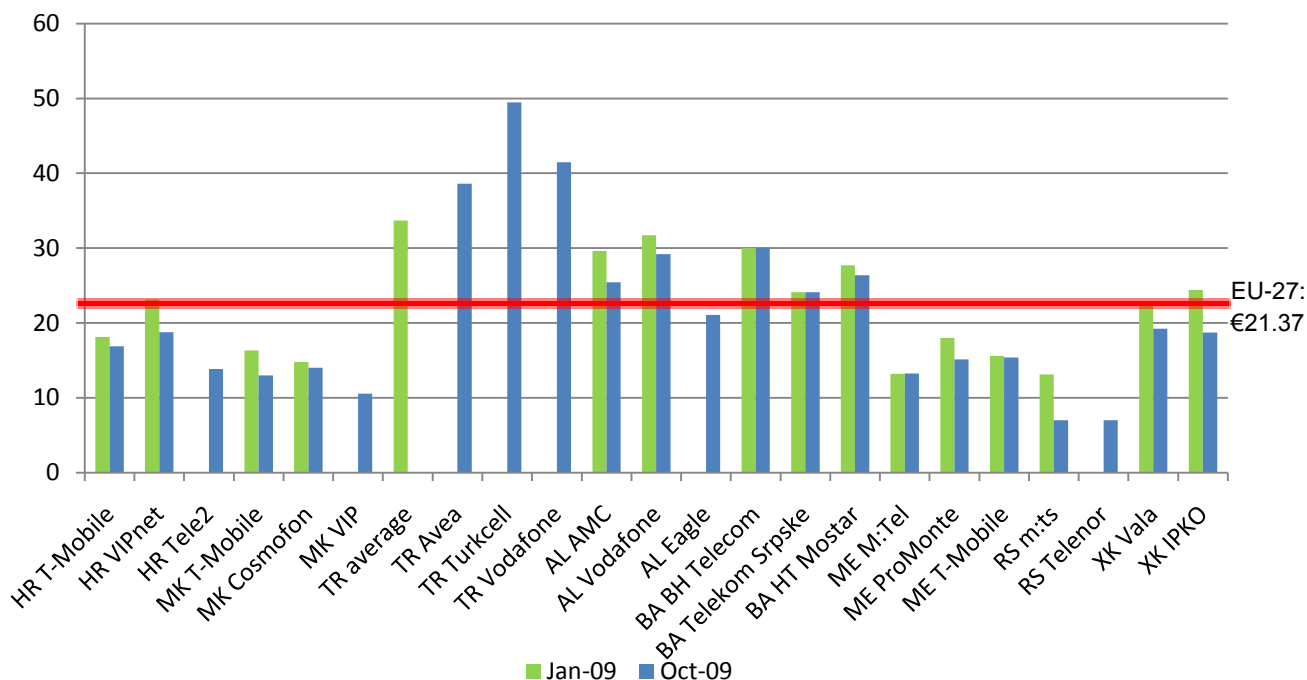


Figure 28 - Medium usage basket in euro per month, including VAT

For high usage baskets Turkey Albania, and Bosnia & Herzegovina are significantly above the EU average of €35.28, while offers in other countries, notably Croatia, FYROM, Montenegro and Kosovo are aligned with EU average prices or, as in the case of Serbia, offer better deals.

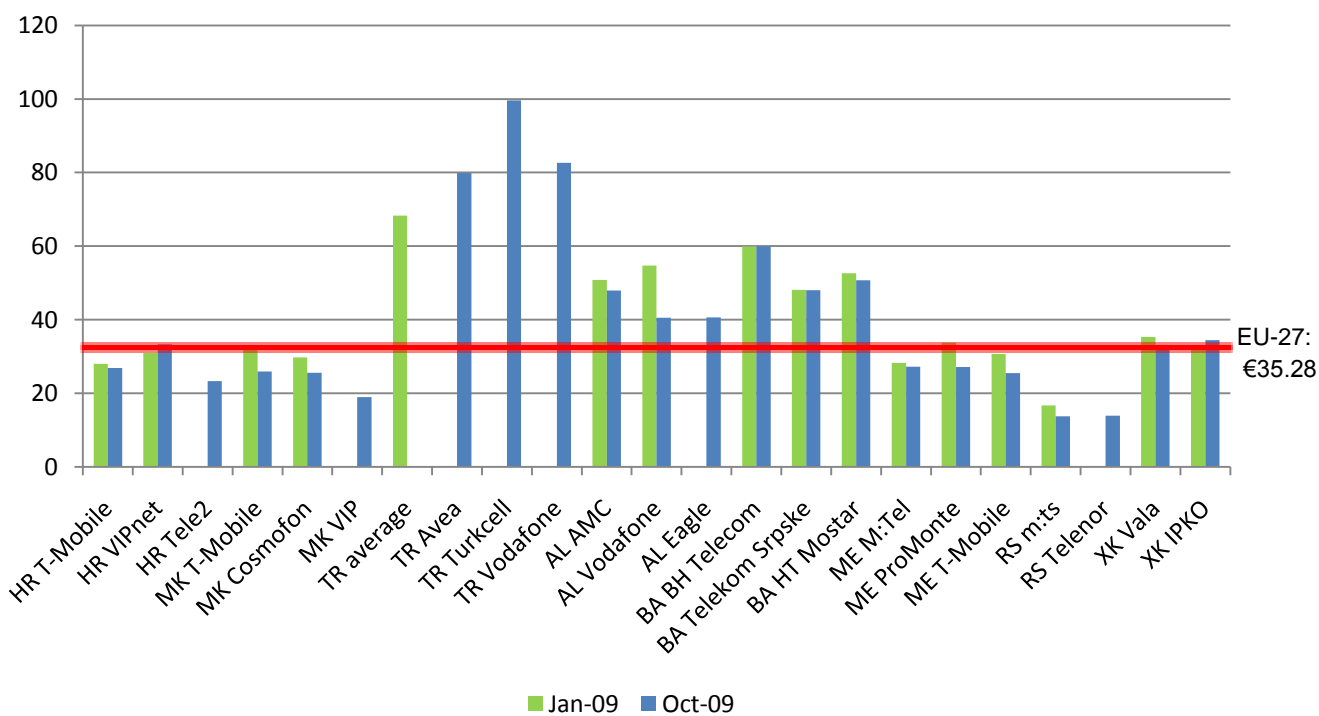


Figure 29 - High usage basket in euro per month, including VAT

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 Mbps⁵⁸. 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, and the only slight differences shown in the chart below are mostly due to exchange rates variations. The range of charges for the same functional offering is very wide across the region.

For example, the annual prices for 2 km 64 kbps leased lines vary from €463 in Turkey to €1,784 in Albania.

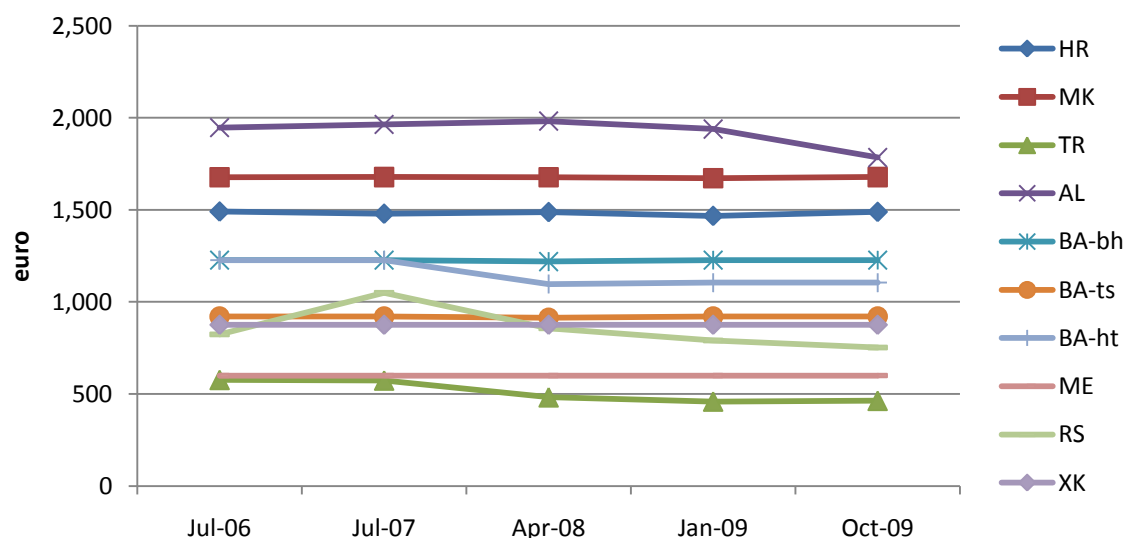


Figure 30 - Annual retail prices for 2 km 64 kbps leased lines

Turkey and Albania have the lowest annual charges among the monitored countries for 2 km 2 Mbps leased lines, respectively as of €2,260 and €2,497. The highest annual prices for these offerings are in FYROM of €12,194. The EU average in 2008 was €7,044 per year.

⁵⁸ http://ec.europa.eu/information_society/policy/ecomm/implementation_enforcement/index_en.htm

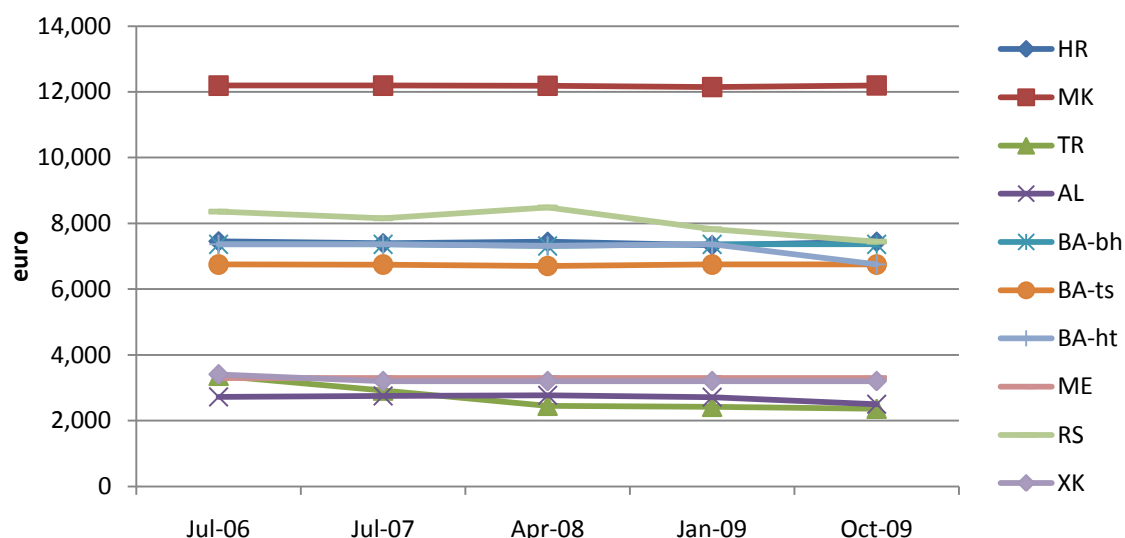


Figure 31 - Annual retail prices for 2 km 2 Mbps leased lines

For 34 Mbps, the lowest retail prices are in Turkey at 12,976 per year, followed by Kosovo at €15,048 per year. The most expensive prices are in Serbia at €66,000 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, and in FYROM, since 2009, 34 Mbps leased lines are only available through radio links.

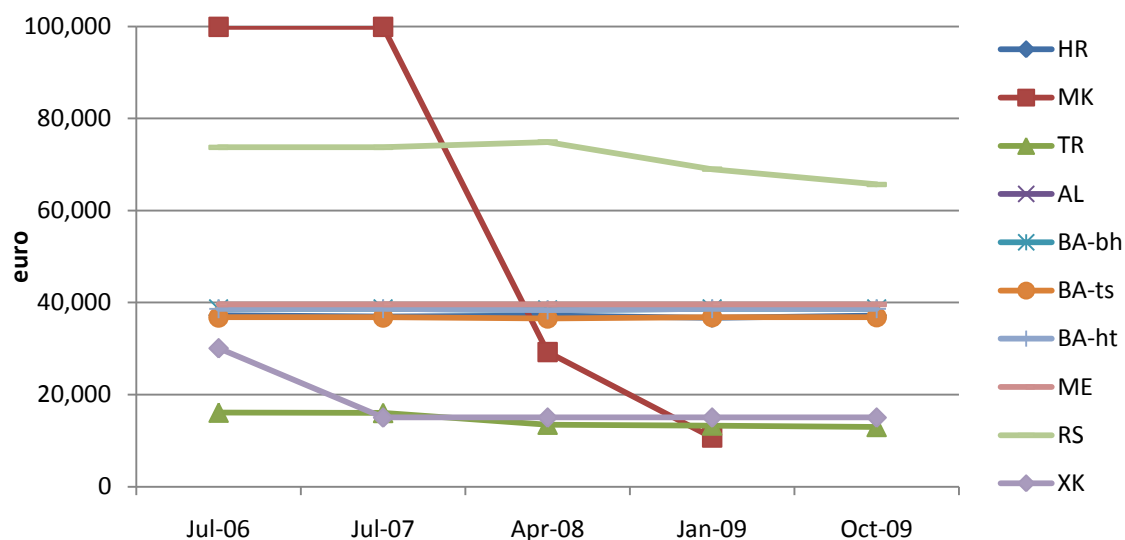


Figure 32 - Annual retail prices for 2 km 34 Mbps leased lines

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.

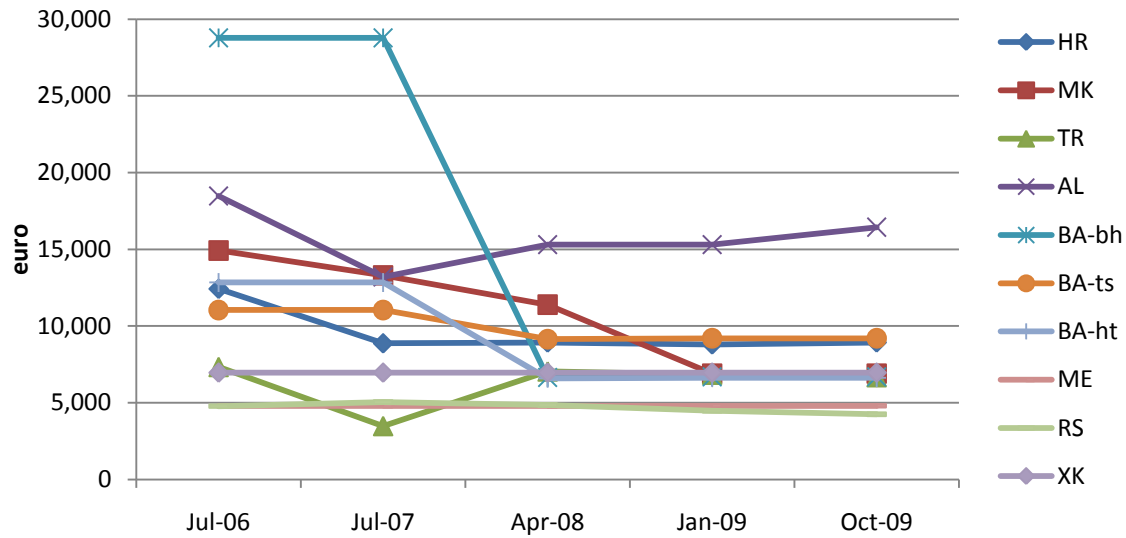


Figure 33 - Annual prices for international half circuits 64 kbps to near country

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.

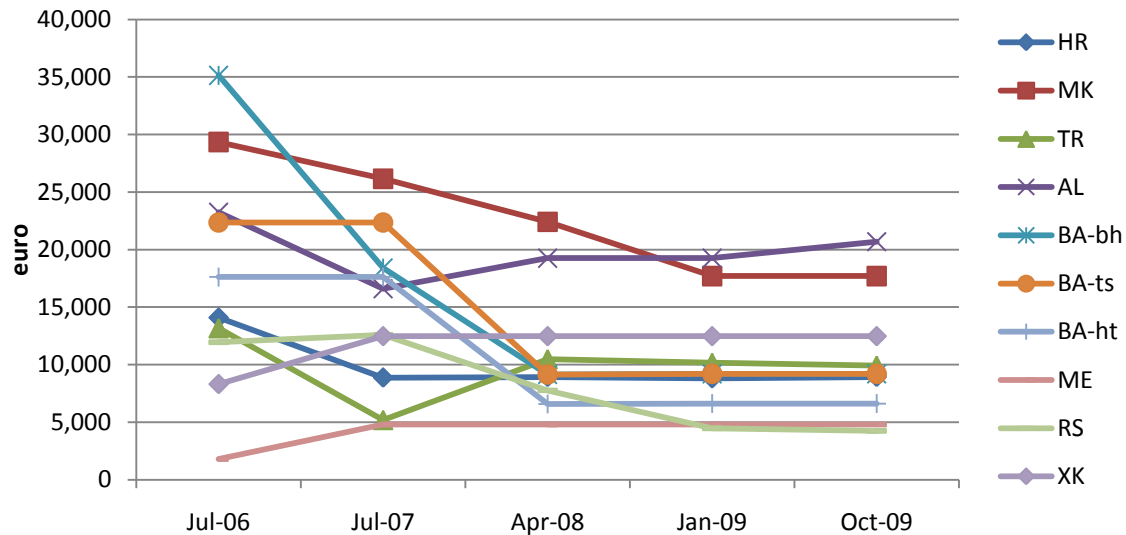


Figure 34 - Annual prices for international half circuits 64 kbps to the UK

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.

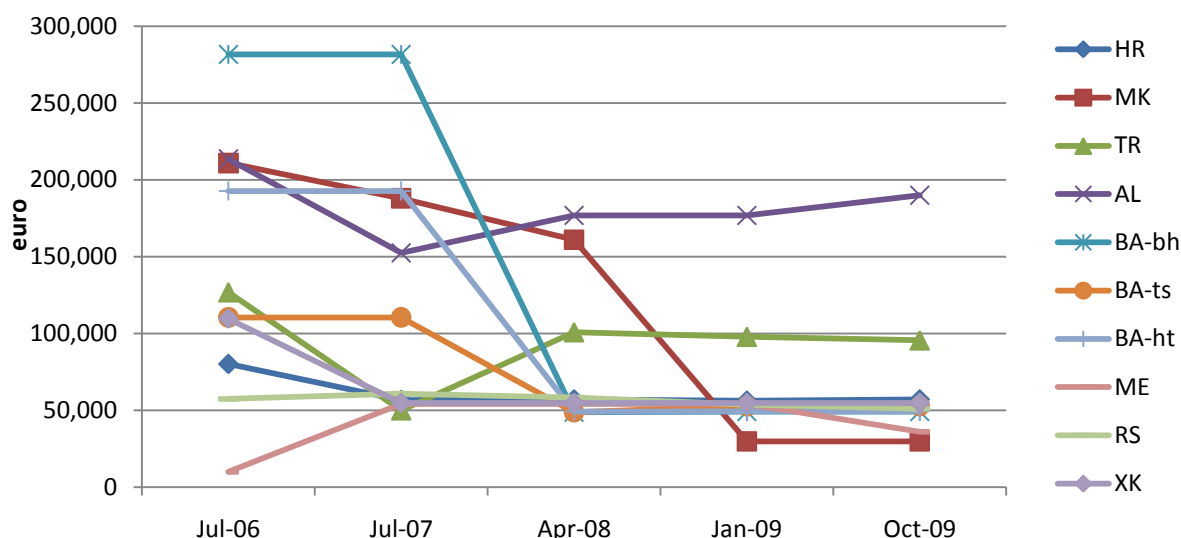


Figure 35 - Annual prices for international half circuits 2 Mbps to near country

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 at €240,000 per year. Turkey also remains expensive at €160,000 per year. Montenegro has the lowest prices, currently at €36,000 per year, following a 33% reduction since January 2009. All other incumbents are keeping charges at below €100,000 per year.

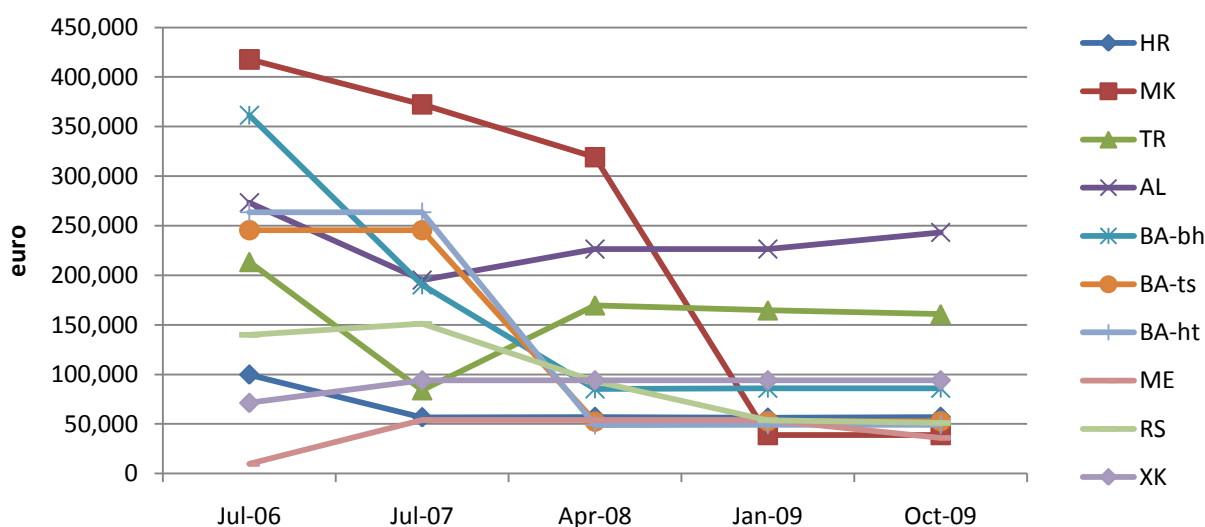


Figure 36 - Annual prices for international half circuits 2 Mbps to the UK

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 €61. The remaining countries have reduced charges to between €20 and €40. Within Bosnia & Herzegovina, there is a range between BH Telecom at €21.72 and HT Mostar at €37.57.

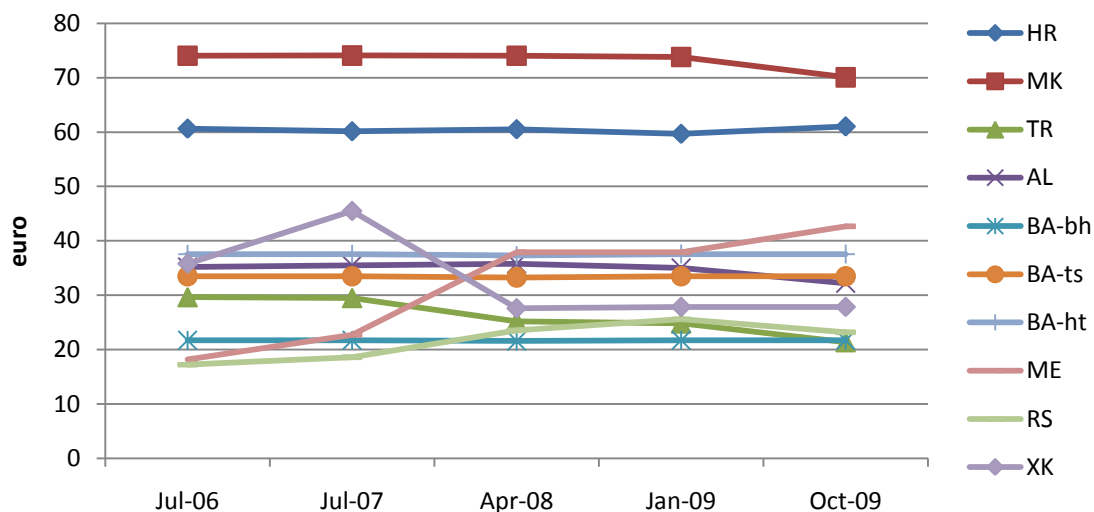


Figure 37 - Dial up Internet charges for 40 hours peak time, including VAT

2. Fixed broadband Internet access retail prices

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

An assessment of the offerings available in the eight countries shows a situation similar to the one observed in the EU member states: the lower speed offerings are phased out by higher speeds.

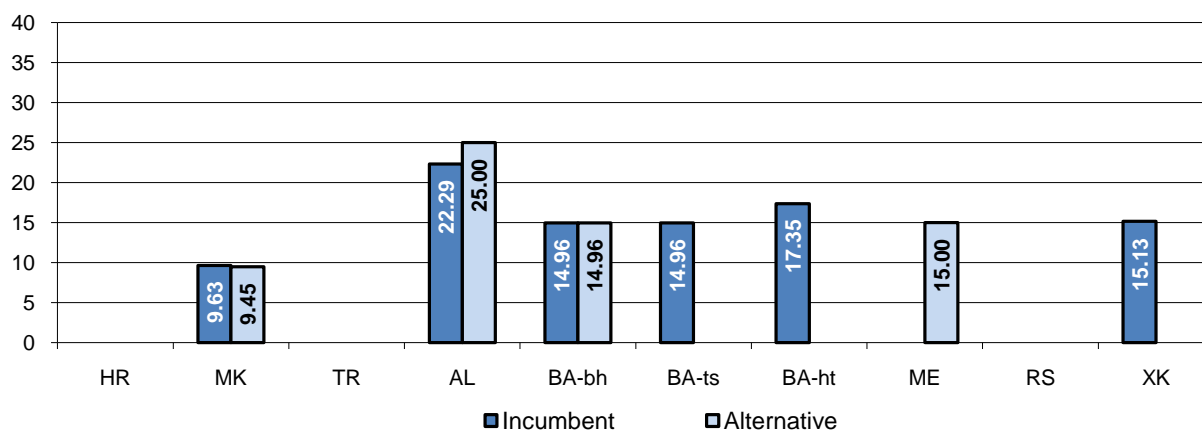


Figure 38 - Broadband 512 kbps monthly subscription charges in euro, including VAT

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

The lowest monthly charges for a 512 kbps connection are offered in FYROM – below €10. 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 €30.85 a month. In Bosnia & Herzegovina, the three incumbents and a major alternative operator offer similar prices, however, the offerings of BH

Telecom and HT Mostar foresee a monthly quota of 5 GB, and an alternative operator – 12 GB, while Telekom Srpske offers a flat rate without any data limits. Albania has the highest monthly charges.

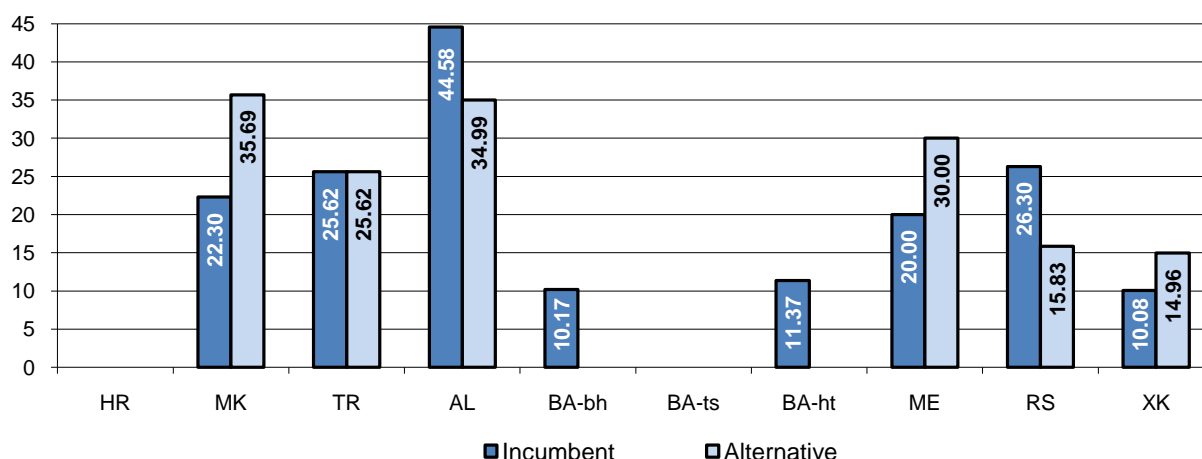


Figure 39 - Broadband 1 Mbps monthly subscription charges in euro, including VAT

The monthly charges for 1 Mbps tend to vary across the monitored countries, from approximately €10 in Bosnia & Herzegovina and Kosovo up to over €44 in Albania for incumbent operators. Alternative operators are more expensive than the incumbents in FYROM, Montenegro and Kosovo. In Serbia, alternative operators’ 1 Mbps offers are 22% cheaper than the corresponding incumbent’s offer. No 1 Mbps offer is available in Croatia.

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

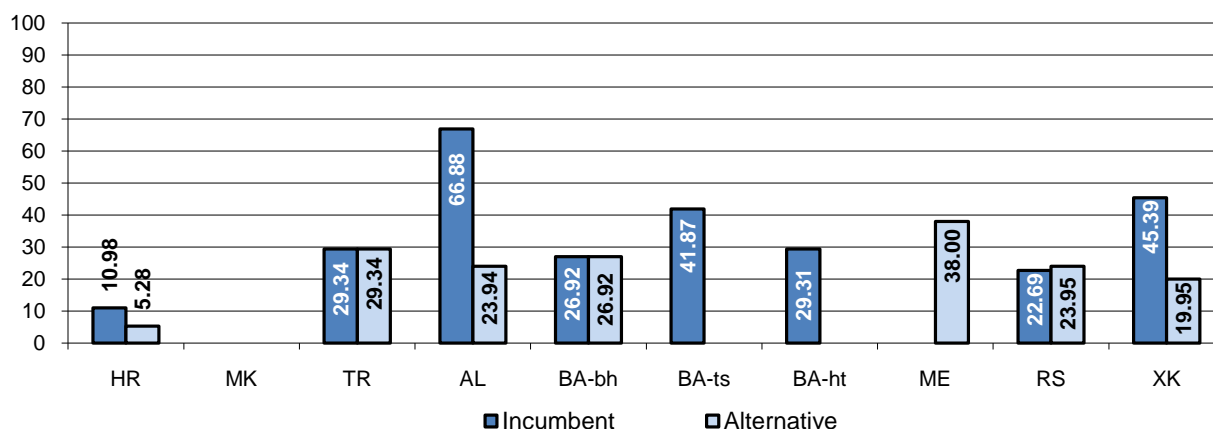


Figure 40 - Broadband 2 Mbps monthly subscription charges in euro, including VAT

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 €10.98 for the incumbent and even lower price of €5.28 for the alternative operator. At the other end of the scale, Albania is again the most expensive country with the incumbent’s prices six times higher than in Croatia. In Bosnia & Herzegovina, the monthly subscription of Telekom Srpske at €41.87 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 10–15 GB per month.

The figure below compares broadband monthly subscription charges for 512 kbps, 1 Mbps, and 2 Mbps offerings of the incumbents in the monitored countries expressed in €/PPP, including VAT, with the EU-27

median offerings according to a 2008 European Commission study.⁵⁹ It does not include Kosovo, as no €/PPP exchange rates are available for Kosovo yet.

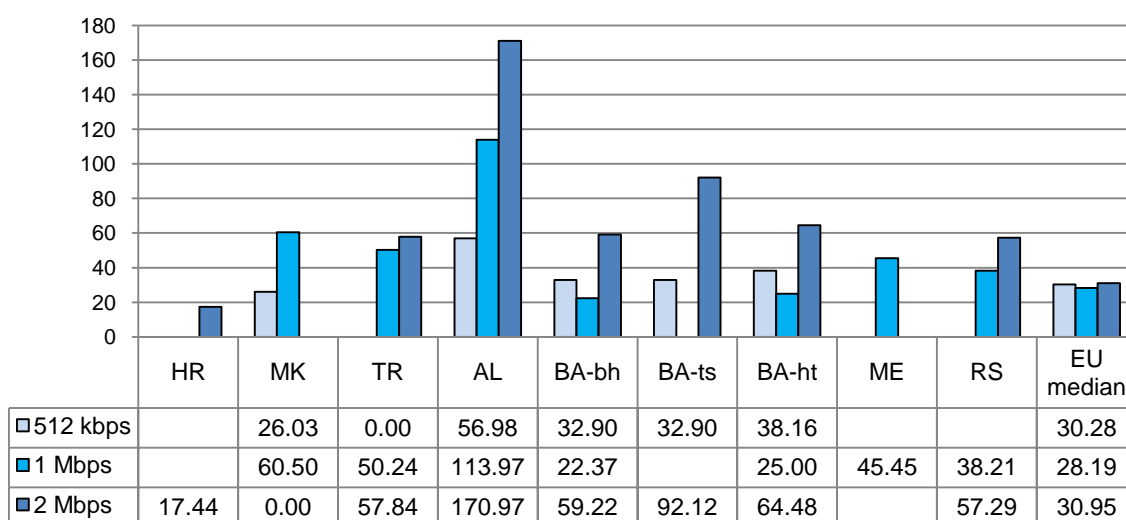


Figure 41 - Comparison of broadband monthly charges by incumbents with the EU median offerings in €/PPP, including VAT

While 512 kbps offerings appear to be priced in line with the EU median values with the only exception of Albania, 1 Mbps and 2 Mbps offerings are in general more expensive, in particular in Albania, FYROM and in 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 level⁶⁰. 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 Turkey, Albania and Kosovo where the termination of calls originating on mobile networks is higher than fixed to fixed call termination.

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, Albania and, since 2009, also in Turkey. In Serbia, the charges are about two times higher than the EU average, while in Montenegro and Kosovo,

⁵⁹ BIAC - First half of 2008, Final report, December 2008, Van Dijk Management Consultants

⁶⁰ http://ec.europa.eu/information_society/policy/ecomm/doc/implementation_enforcement/annualreports/14threport/annex2.pdf

they are four and six times higher, respectively. In 2009, local termination rates on the fixed incumbent network decreased by 16.3% in Albania and 7.7% in Bosnia & Herzegovina.

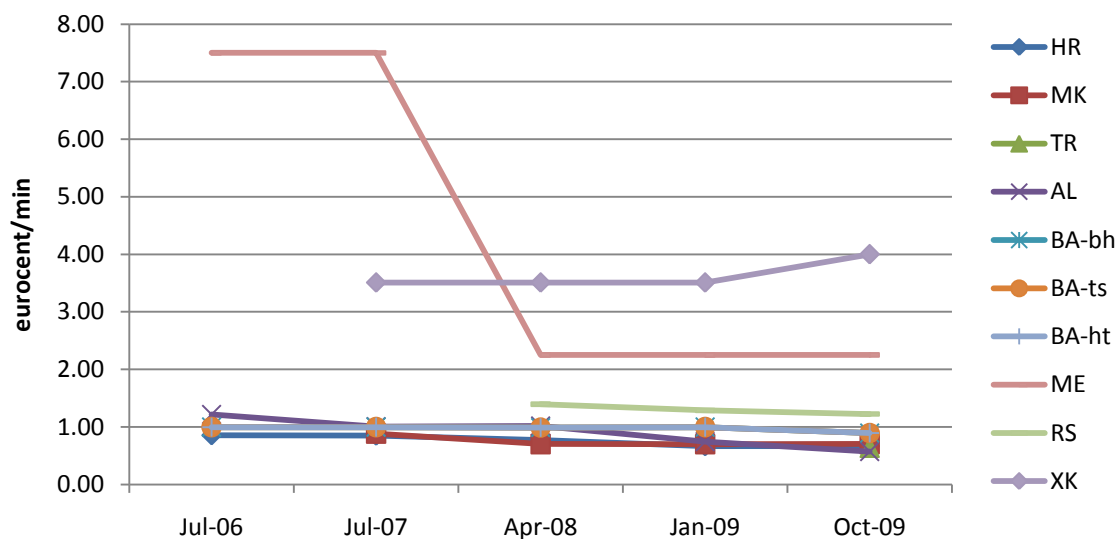


Figure 42 - Local call termination charges on the incumbent's fixed network, peak time

At the single transit level, call termination charges on the incumbent's fixed network are close to the EU average in FYROM, Turkey and Albania. In Albania, the charges decreased by 23.5% during 2009. Call termination charges are still higher than in the EU average in Bosnia & Herzegovina, in spite of the 12.5% decrease during 2009. 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.

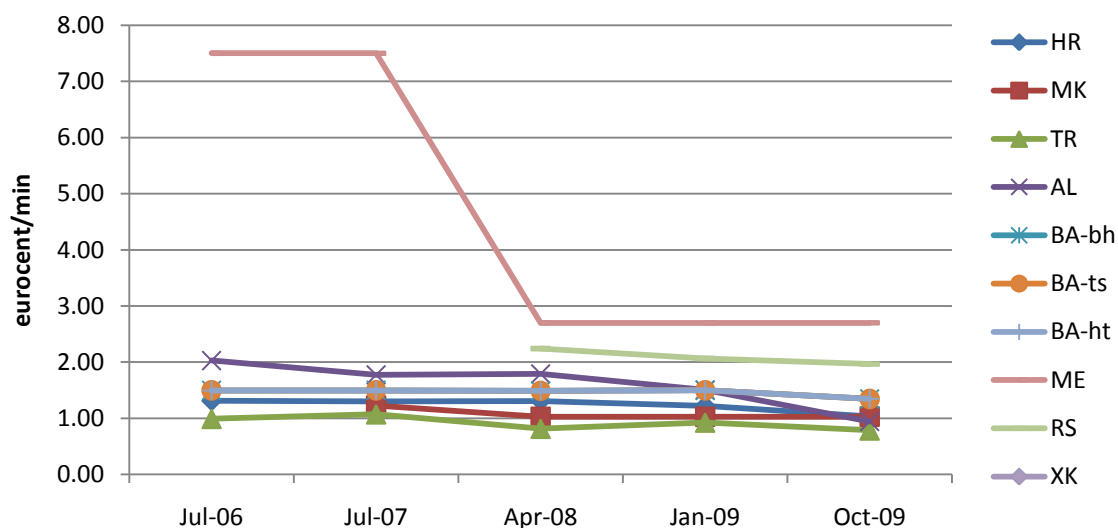


Figure 43 - Single transit call termination charges on the incumbent's fixed network, peak time

At the double transit level, call termination charges on the incumbents' fixed networks are some 7 – 12% higher than the EU average in Turkey and Albania, where rates decreased considerably in 2009, and 24 – 54% higher in Croatia and Bosnia & Herzegovina and almost 165% higher in Serbia.

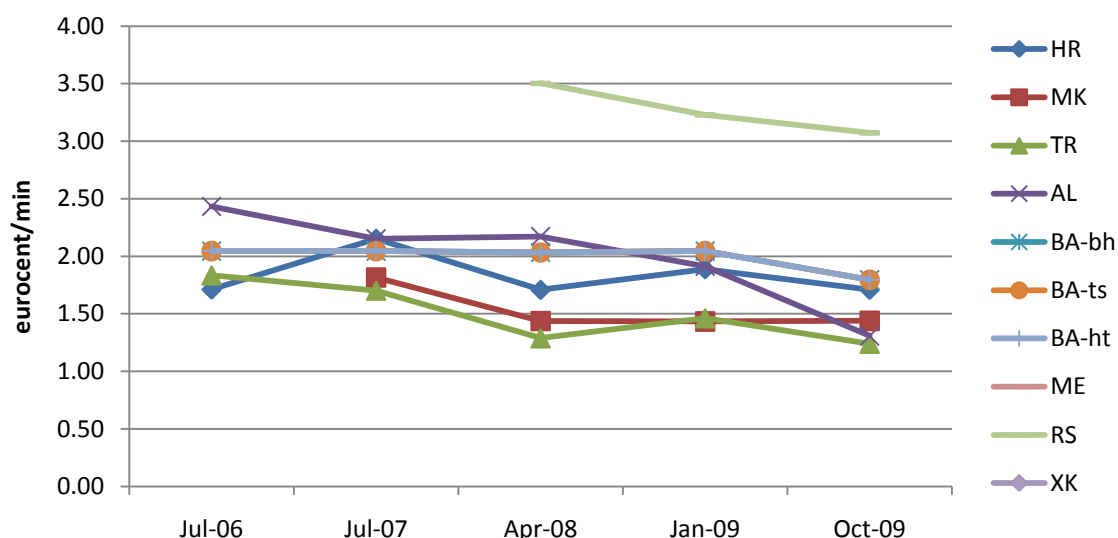


Figure 44 - Double transit call termination charges on the incumbent's fixed network, peak time

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, Bosnia & Herzegovina and Montenegro. Certain fluctuations in other countries can be explained to some extent by the exchange rate changes. The highest level of fixed call termination charges have been reported in Montenegro, Serbia 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 Report⁶¹.

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

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

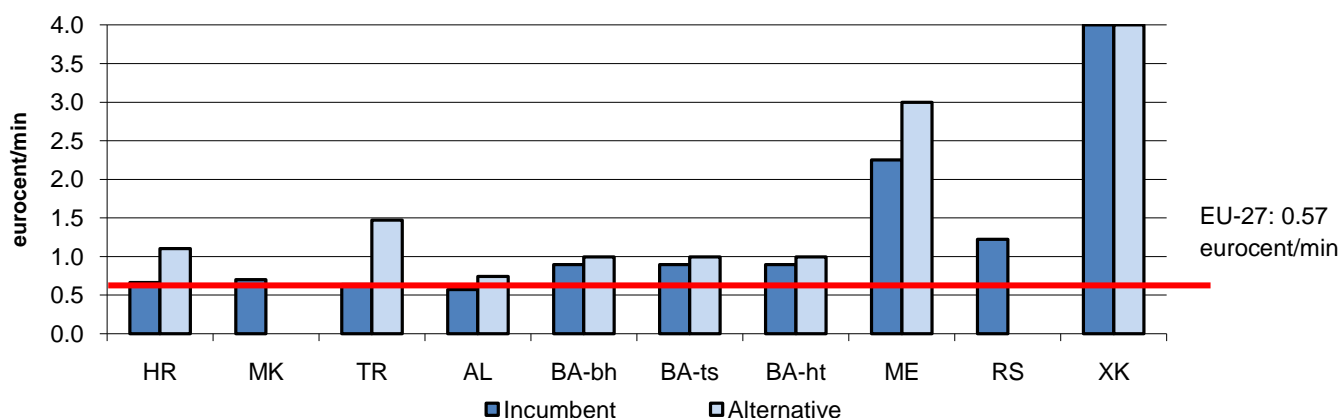


Figure 45 - Local call termination on the fixed incumbent and alternative network

⁶¹ http://ec.europa.eu/information_society/policy/ecomm/doc/implementation_enforcement/annualreports/14threport/annex2.pdf

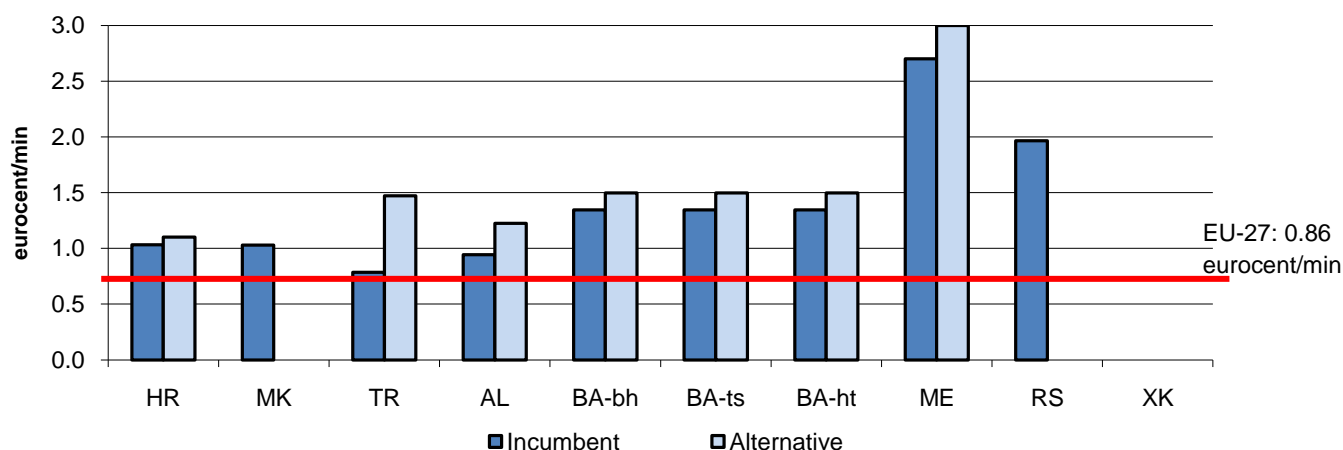


Figure 46 - Single transit call termination on the fixed incumbent and alternative network

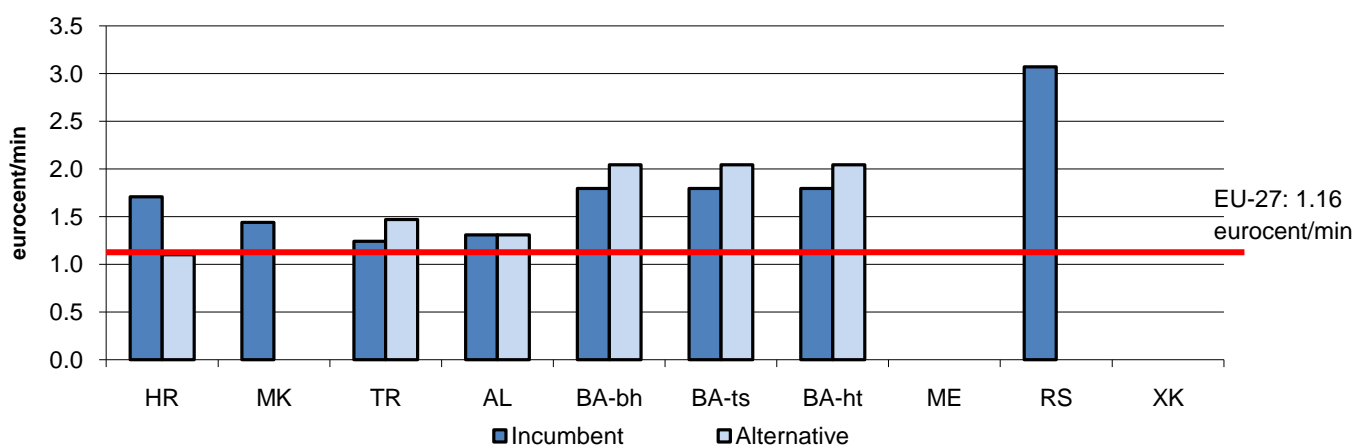


Figure 47 - Double transit call termination on the fixed incumbent and alternative network

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%⁶². 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 through the fixed networks. The differences between fixed to mobile and mobile to fixed termination rates are further addressed in Figure 49.

⁶² http://ec.europa.eu/information_society/policy/ecomm/doc/implementation_enforcement/annualreports/14threport/annex2.pdf

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.

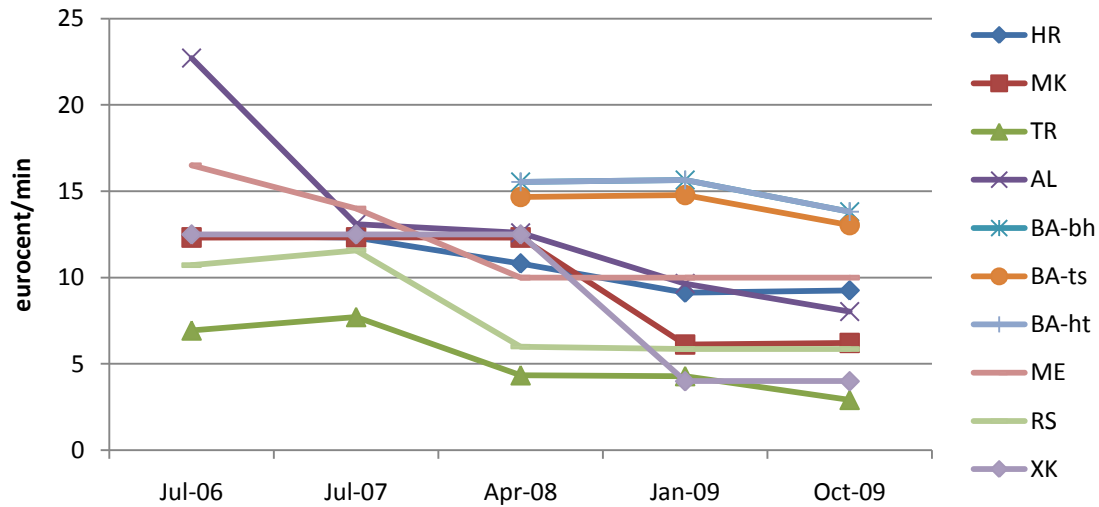


Figure 48 - Fixed to mobile termination rates, peak time

Since 2006, mobile termination rates decreased considerably in all countries, notably in Kosovo and Albania (over 65%), Turkey (58%), Macedonia and Serbia (over 45%) and Montenegro (40%). A decrease during 2009 was observed in Turkey, Albania, and Bosnia & Herzegovina.

The figure below shows the current mobile termination rates of all mobile operators in the monitored countries that entered in force as of October, 1 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.

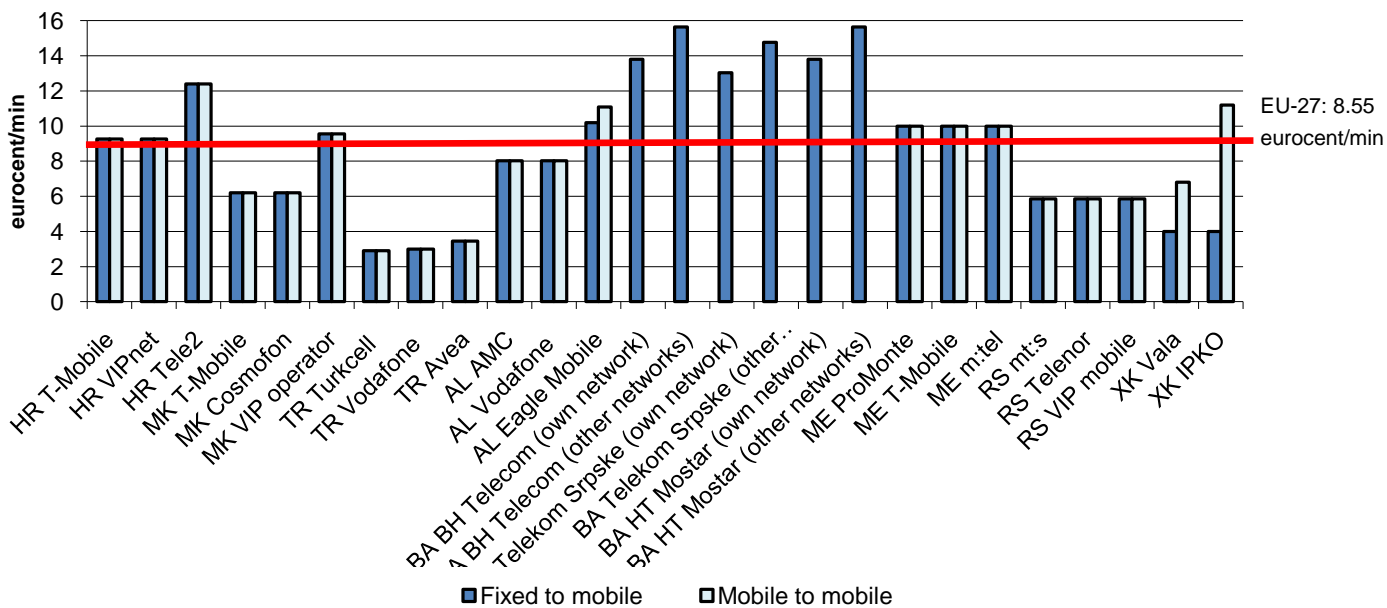


Figure 49 - Mobile termination rates as of October 1, 2009, peak time

3. Local loop unbundling charges

Local loop unbundling so far has been implemented only in four countries: Croatia, FYROM and Turkey. From January 2010, it is also available in Bosnia & Herzegovina.

Figure 50 and Figure 51 below compare the one-off connection charges and monthly rental prices for full and shared LLU access in the four monitored countries and the EU-27 averages according to the 14th Implementation report.⁶³ The connection charges in Croatia and Bosnia & Herzegovina are comparable to the EU average, while in FYROM and Turkey they are set below the EU level. The rates shown for Croatia are the ones applicable in case of works at customer premises. Fees without works are respectively €37.22 (full LLU) and €55.13 (shared access). 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 ten loops. The Macedonian connection prices may further differ depending on the form of collocation – the option shown in the figure below uses physical collocation.

The slight changes from the prices shown in the previous monitoring report are due to exchange rate variations, except for Turkey, where LLU set-up fees fell by approximately 34%, and monthly fees by 12% for full access and 2.5% for shared access.

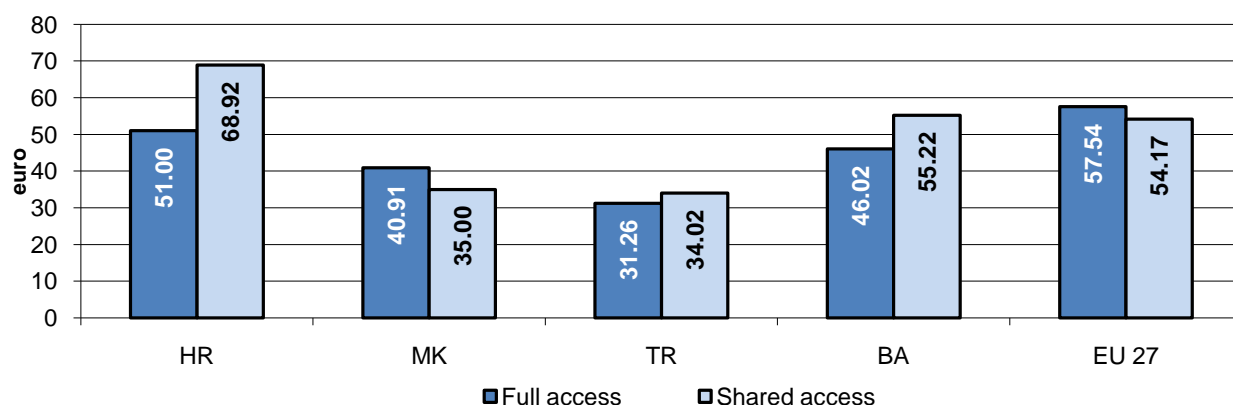


Figure 50 - Connection prices for fully unbundled loop and shared access

Monthly rental charges in all four monitored countries, for both full and shared LLU access are set at the level very close to the EU average. Since January 2009, LLU monthly fees decreased in Turkey by 12% (full access) and by 2.5% (shared access).

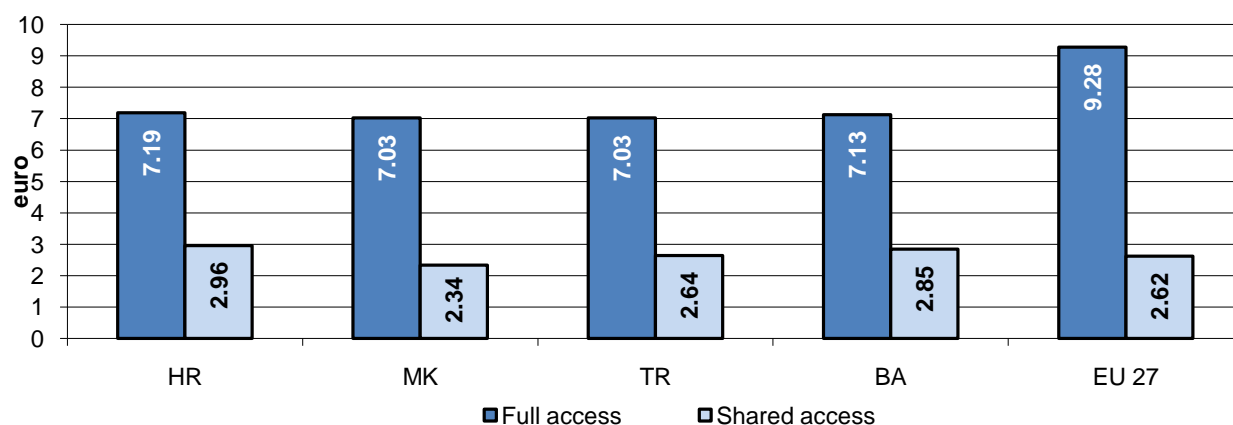


Figure 51 - Monthly rental prices for fully unbundled loop and shared access

⁶³ http://ec.europa.eu/information_society/policy/ecomm/doc/implementation_enforcement/annualreports/14threport/annex2.pdf

L. Information society legislation and policy

1. Information society legislation

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

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

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

Table 12 - Information society legislation

The most important part of the *acquis* is the regulatory framework for electronic communications. Five countries have adopted laws which are based on the EU 2003 regulatory framework. The other three countries are preparing new electronic communications laws. In Serbia the draft has already been subject to a public consultation and its adoption is foreseen for the first half of 2010.

Audio-visual media regulation is not included in the scope of this study, but references to the relevant legislation can be found in the annex. No country has yet transposed the Audiovisual Media Services Directive.

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

All countries have adopted an electronic signature law based on Directive 1999/93/EC. Montenegro is planning to amend its electronic signature law.

Cybercrime legislation is usually not covered by a separate law, but by provisions in the Criminal Code. The table above therefore does not show the date of the law, but whether the national legislation is more or less aligned with the Convention on Cybercrime (for details see Table 13 below). In Kosovo a draft law on prevention and fight of the cyber crime, which will align legislation with the Convention, passed first reading in the assembly.

There is no requirement from the *acquis* to adopt laws on electronic documents or electronic government, but most countries adopted such laws. Turkey has secondary legislation on electronic documents standards. In Albania the government approved a bill in October 2009.

In most of the monitored countries the legislation is structured in similar way: The country has an electronic communications law, an electronic commerce law, an electronic signature law, and various laws

on broadcasting/media/electronic media (usually separate for the public service broadcaster and other media). Some noteworthy exceptions:

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

2. Information society policy

Each of the participating countries has a high-level responsible body for information society policy. This is usually a ministry. In Croatia policy-making is the responsibility of the Central State Administrative Office for e-Croatia, which is lead by a State Secretary. In Turkey, the State Planning Organization in the Prime Ministry is responsible for policy-making across all sectors.

All countries have adopted policy or strategy documents on the information society in general and/or specifically on electronic communications regulation. These strategies are usually adopted for a period of a few years. In Bosnia & Herzegovina the latest policy on information society development was adopted in 2004. In Albania the policy for the electronic communications sector is from 1999, but a new policy has been presented in February 2010 and the (broader) strategy for the information society was adopted in 2009. Kosovo does not have a strategy document covering the whole sector, but a recently adopted E-Government strategy.

M. Fundamental rights and freedoms

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

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

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

An example for this discussion is the French Hadopi law.⁶⁴

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

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

Examples for this discussion are the German law⁶⁵ on combating child porn in communications networks and laws on blacklisting paedophile content or unauthorised gambling websites in Italy⁶⁶.

⁶⁴ Loi n° 2009-669 du 12 juin 2009 favorisant la diffusion et la protection de la création sur internet – Law no. 2009-669 on the protection of creation on the internet, <http://www.assemblee-nationale.fr/13/dossiers/internet.asp>. The law established a new authority, called Hadopi, which may suspend users' internet connections after sending two warnings.

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

1. Constitutional rights

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

However, there is not much case law of the constitutional courts. Only Serbia reported a judgement of its Constitutional Court (case IUz 149/2008):

Article 41 of the Serbian Constitution protects the confidentiality of letters and other means of communications. This article allows interception only under court orders and only for prosecution of crimes and state security. Article 55 para. 1 of the Law on telecommunications allowed interception not only under court orders but also under other (unspecified) laws. The Constitutional Court of Serbia repealed this reference to other laws, as it extended the scope of possible interception to cases of interception without court order or for other purposes than allowed by the Serbian Constitution.

2. Mechanisms to restrict the freedom of expression and information

Turkish Law no. 5651⁶⁷, which was enacted on May 4, 2007, is the only law in the monitored countries, which foresees a mechanism to block access to certain websites.

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

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

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

The law does not contain a mechanism that would ensure proportionality of the blocking orders. In particular, popular video portals such as YouTube, Geocities, DailyMotion and Google have been blocked in Turkey, because singular videos were found as infringing the law. The law does not require the decision-making bodies to weigh the interest in blocking a certain video against the interest of innocent users to upload or download the vast number of legal videos on such websites.

According to a recently published report of the OSCE⁶⁸, access to approximately 3,700 websites has been blocked until December 2009. The report criticised that at least 197 court blocking orders were issued outside the scope of the law and that the Telecommunication Communication Presidency stopped publishing details about its administrative blocking decisions in May 2009.

According to the European Commission's last progress report, "*Frequent website bans continue to be a cause for concern. Judicial and administrative decisions block the entire website instead of filtering out*

⁶⁵ Gesetz zur Bekämpfung der Kinderpornographie in Kommunikationsnetzen, BGBl 2010 I S. 78, <http://www.bgbl.de/>. The law was adopted by parliament before the 2009 general elections and came into force in February 2010, but the new government does not intend to implement it. The law would have obliged access providers to block access to certain websites based on a list managed by the police

⁶⁶ Law 38/2006, <http://www.camera.it/parlam/leggi/060381.htm> and Legge Finanziaria 2007, <http://www.parlamento.it/parlam/leggi/062961.htm>

⁶⁷ Law no. 5651, dated May 4, 2007, on regulation of publications on the Internet and combating crimes committed by means of such publications

⁶⁸ Organization for Security and Co-operation in Europe, Report of the OSCE Representative on Freedom of the Media on Turkey and Internet Censorship, January 2010, http://www.osce.org/documents/rfm/2010/01/42294_en.pdf

*unwanted content. YouTube has been banned since May 2008. Court cases are pending against Facebook, Google Sites and other sites.*⁶⁹

Law no. 5651 also regulates the liability of Internet service providers. Turkey has not yet transposed the E-Commerce Directive, but works on drafting an e-commerce law are under way. It is not known yet, whether or to what extent Law no. 5651 would be amended or replaced in the course of transposing the Directive.

N. Information society statistics

A Council Resolution⁷⁰ of 2003 and a Regulation⁷¹ of the European Parliament and the Council adopted in 2004 defined indicators and required Member States to collect certain information in order to measure progress toward the objectives defined in Lisbon in March 2000 and later in the eEurope action plan of 2002. The collected data are published regularly by Eurostat.⁷² The eEurope benchmarking is being further developed under the i2010 Benchmarking Framework⁷³, as endorsed by the i2010 High Level Group in April 2006. Commission Regulations adjust the legal framework annually.⁷⁴

1. Bodies responsible for information society statistics

In most of the monitored countries, the national statistics institutes are responsible for information society indicators.

In Croatia, FYROM, Turkey and Serbia these institutes collect data in information society surveys and their statistics are also integrated with Eurostat⁷⁵ data and publications. There is significant progress in these four countries, as the surveys are on annual basis and comprehensive.

The national statistics institutes are also responsible for information society statistics in Albania, Kosovo and Montenegro, but as yet no data have been published. In Montenegro the definition of competencies has been refined since the last reporting period. The Statistical Office of Montenegro (MONSTAT) is responsible for collecting and publishing of statistical data. The Ministry for Information Society is responsible for benchmarking of information society indicators.

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

2. Available data on information society statistics

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

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

⁶⁹ Turkey 2009 Progress Report, SEC(2009)1334, page 18. See also the answer given by the European Commission to written questions E-6023/08 and E-6068/08 of members of the European Parliament, <http://www.europarl.europa.eu/sides/getAllAnswers.do?reference=E-2008-6023&language=EN>

⁷⁰ Council Resolution of February 18, 2003 on the implementation of the eEurope 2005 Action Plan, 2003/C 48/02

⁷¹ Regulation (EC) No 808/2004 of the European Parliament and the Council of April 21, 2004 concerning Community statistics on the information society; amended by Regulation (EC) No 1006/2009

⁷² 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

⁷³ http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/060220_i2010_benchmarking_framework_nov_2006.doc

⁷⁴ See Commission Regulations (EC) No 1099/2005, 1031/2006, 847/2007, 960/2008 and 1023/2009.

⁷⁵ <http://epp.eurostat.ec.europa.eu/>

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

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

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

The eSEEurope Initiative collected data on broadband penetration, e-government services, and computers and Internet access in schools.⁷⁶

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.

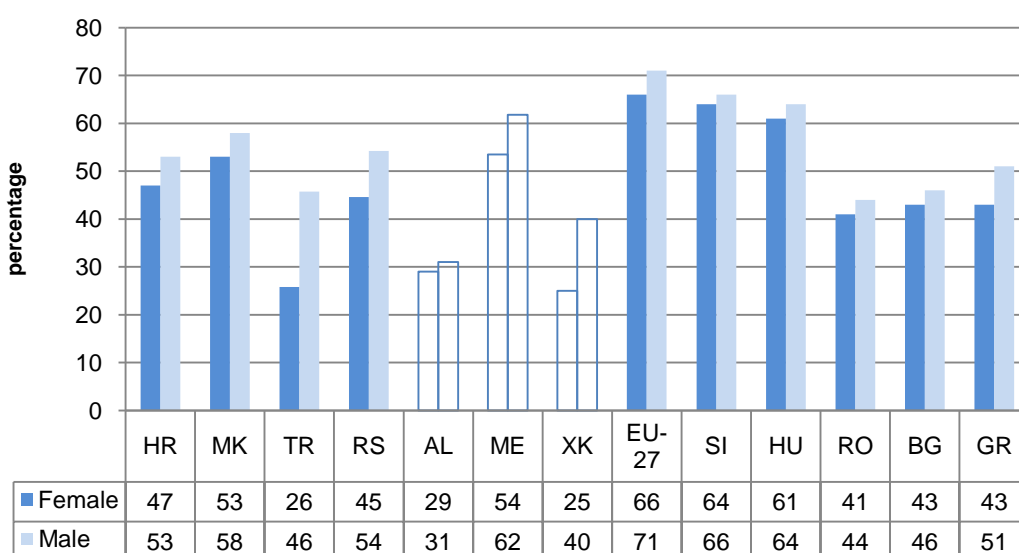


Figure 52 - Percentage of individuals regularly using computers

⁷⁶ <http://www.eseeinitiative.org/>

Croatia, FYROM, Turkey and Serbia reported new data from surveys conducted by the respective statistics institutes in early 2009. Data for Albania, Montenegro and Kosovo is shown in a different colour, as the methodology is not comparable with other countries. The data shown for Montenegro is based on research of the Centre for Monitoring (CEMI) in 2008, which cannot be directly compared to the data from other countries. Albania and Kosovo delivered new estimates for 2009, based on different sources.

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

Obvious gaps between male and female computer usage exist in Turkey (20%) and Kosovo (15%). This gap is less obvious in other countries, but in all four countries where the data is based on surveys of the statistics institutes the difference between male and female usage is at least as big as in the EU-27 average.

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

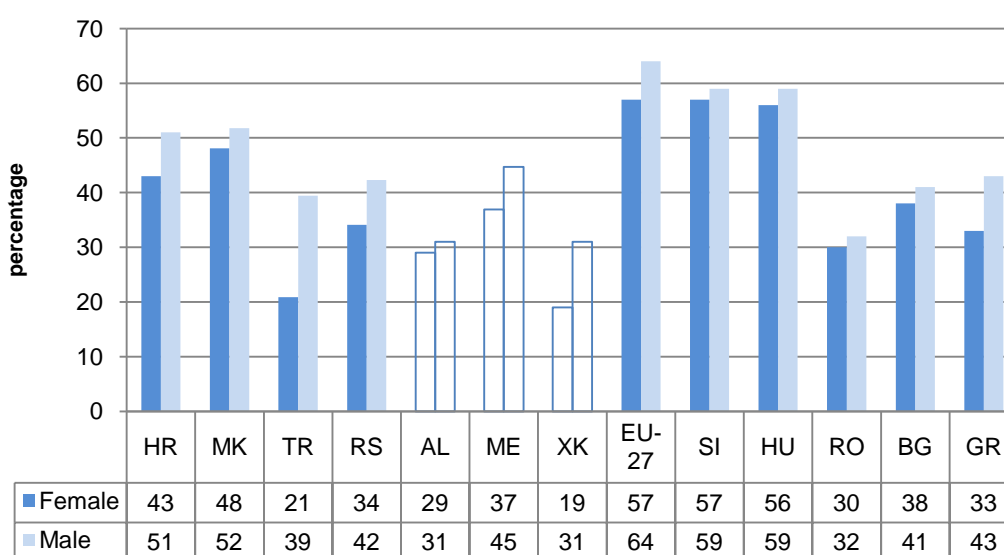


Figure 53 - Individuals regularly using the Internet

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

The gap between male and female Internet usage remains obvious in Turkey (18%) and Kosovo (12%). This gap is less obvious in the newer data reported by Croatia and Serbia, and FYROM shows a smaller gender gap than the EU-27 average.

4. Computer and Internet usage by enterprises

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

In four countries the national statistics institutes conduct surveys on computer and Internet usage by enterprises: Croatia, FYROM, Turkey and Serbia. The Croatian data is from the first quarter of 2008, the other three countries reported data from surveys conducted between December 2008 and May 2009. Kosovo reported data from a survey of the Riinvest Institute in April 2008.

No comparable data is available from Albania and Bosnia & Herzegovina. The available data for Montenegro is not grouped by enterprise size and therefore not shown in the figures. According to the ISSP ICT survey of December 2007, 92.9% of Montenegrin enterprises used computers and 90.5% had Internet access.

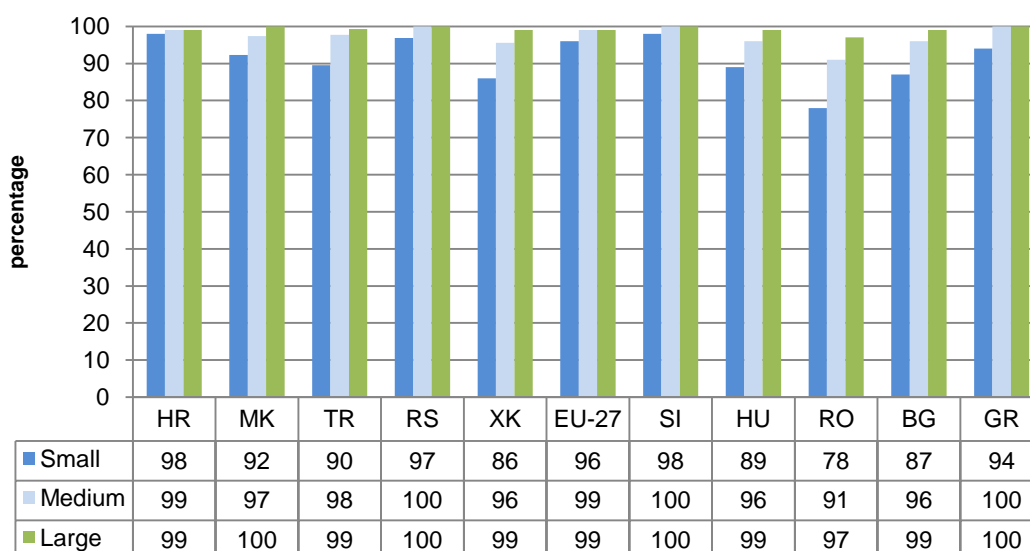


Figure 54 - Enterprises using computers

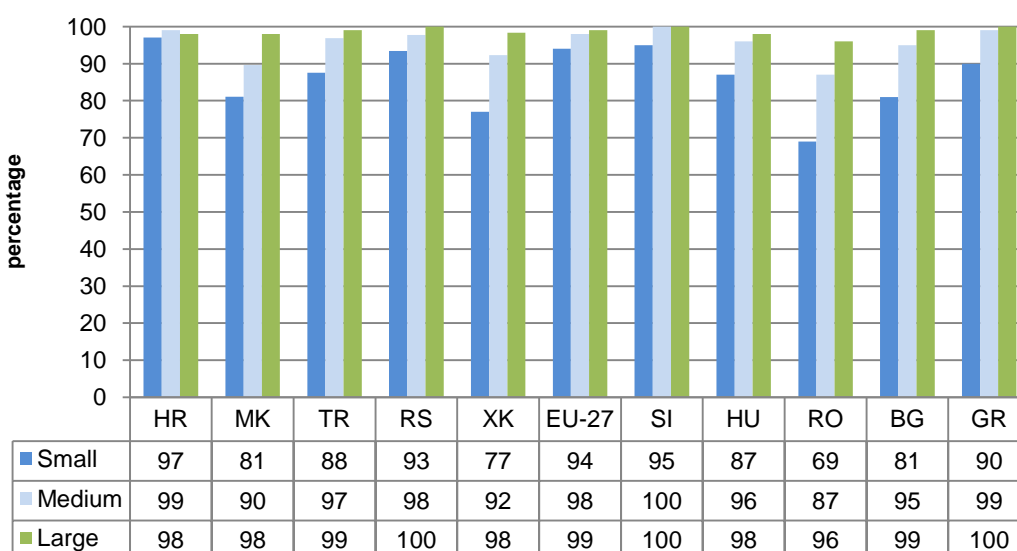


Figure 55 - Enterprises having access to the Internet

The figures do not show significant developments since the last report. 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 Turkey is only some percent below.

In FYROM and Kosovo about a fifth of small enterprises do not have Internet access, but in both countries this data is from 2008 and has not been updated since the previous report.

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, but also deals with

specific questions such as spam and cookies (Directive on Privacy and Electronic Communications⁷⁷);

- the fight against cybercrime, through the adoption of a framework decision⁷⁸ (which echoes the Council of Europe Convention on Cybercrime⁷⁹) 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, but refers to the “*state of the art*”, the costs of implementation and a level of security “*appropriate to the risk presented*”.

Directive 2009/136/EC introduced significant amendments. In the case of a personal data breach providers will in future be obliged to notify the breach to the competent national authority. If the personal data breach is likely to adversely affect the personal data or privacy of subscribers or individuals, the provider shall also inform the subscribers and individuals affected. These amendments came into force in December 2009 and Member States will have to transpose them in national law by May 2011. This study therefore did not ask whether the monitored countries have already introduced such obligations in the national legislation.

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

With 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 the 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.⁸⁰

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

⁷⁷ 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). Amended by Directive 2009/136 of November 25, 2009.

⁷⁸ Council Framework Decision 2005/222/JHA of February 24, 2005 on attacks against information systems

⁷⁹ Convention on Cybercrime, ETS no. 185.

⁸⁰ 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.

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.⁸¹ Turkey also has a bylaw on personal information processing which includes the typical unspecific obligation and has not been repealed by the new bylaw. In particular, the existing bylaw applies to those providers of telecommunications services for profit, which are not equity companies and therefore not within the scope of the new bylaw.

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

2. Cybercrime

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

- A Council Framework Decision⁸² 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).
- 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).
 - Further 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 have ratified the Convention on Cybercrime. In Bosnia & Herzegovina, however, the Criminal Code has not yet been amended accordingly. Montenegro adopted a law on ratification, which has not yet been published.

Kosovo has not ratified the Convention, but a draft law on transposing its provisions into national legislation has already passed first reading in Parliament.

In Turkey, the government's 2010 Annual Programme asks the Ministry of Justice to launch a study aiming to become a signatory to the Convention. However, the Turkish Criminal Code has already been aligned.

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

⁸¹ Regulation on the functionality of public communications networks, December 10, 2007, <http://www.pta.is/file.asp?id=1872>

⁸² Council Framework Decision 2005/222/JHA of February 24, 2005 on attacks against information systems.

	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, * in parliamentary procedure								

Table 13 - Computer related criminal offences

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

- Croatia has a national programme of information security.
- A Turkish National Strategy Document on fighting organised crime (October 2006) covers main principles. An action plan based on this strategy has been prepared and will soon be published.
- The Albanian government's January 2008 sector strategy of public order foresees the establishment of a special organisational unit to deal with cybercrime and the improvement of cybercrime legislation.
- Serbia has a special law on the organisation and competences of public authorities for fighting high technology crime.
- In Kosovo the policy framework will be laid out by the Law on prevention and fight of the cybercrime, which has passed first reading in Parliament (see above).
- FYROM, Bosnia & Herzegovina and Montenegro do not have an explicit policy framework against cybercrime.

3. Bodies in charge for security policy

Several of the monitored countries have bodies responsible for network and information security policy, but a closer look reveals that most of the functions of these bodies deal with the security of the state's own networks, for example the responsibility to run governmental institutions network, to perform penetration tests of state institutions' systems, to improve e-government or to classify state documents as being "state secrets".

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

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

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

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

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

P. Electronic commerce and electronic signatures

1. Market access and liability

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

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

All monitored countries except Turkey transposed these requirements into their national legislation. Albania and Serbia adopted electronic commerce laws in 2009. The Turkish Law no. 5651⁸³ already contains some provisions on liability of ISPs, but it is not a transposition of the Electronic Commerce Directive. Turkish ISPs are not obliged to actively monitor or seek for illegal activities, similar to the rules in article 15 of the Electronic Commerce Directive. But whereas the Electronic Commerce Directive limits the liability of access providers ('mere conduit'), the Turkish law obliges them to block access to websites if a court or the NRA has decided that the website constitutes a criminal offence (see chapter VI.M on fundamental rights 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 14 - 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

⁸³ Law no. 5651 on regulating publication in Internet and combating crimes committed through such publication

authorities; of suretyship and collateral securities supplied by people acting for non-business purposes or that are governed by family law or by the law of succession.

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

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

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

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

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

3. Market access, supervision and accreditation

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

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

The requirement not to make the provision of certification services subject to prior authorisation has been transposed in Croatia, Albania 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. However, there is new secondary legislation on the registration procedure, two providers have recently started to issue qualified certificate and a third (the Ministry of interior) will start soon.
- Although Turkey does not require prior authorisation, providers of qualified certificates must notify their services two months in advance, which is unusually long. In case of an incomplete notification the authority may suspend the activity of the provider for the duration of a month.
- In Bosnia & Herzegovina the law also does not require prior authorisation, but market access might be hindered by the fact that the law requires providers to notify their services to a supervision body which has not been established.

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

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

4. Electronic signature market data

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

- In Turkey, there are four certification-service providers that issue qualified certificates, but in spite of the size of the country they have only issued about 109,000 qualified certificates. This is even a small decrease since the last report (111,000).
- In FYROM, two certification-service providers issue qualified certificates, but no data on the number of certificates is available.
- In Croatia, the state-owned Financial Agency (Fina) is the only issuer of qualified certificates, As of September 2009 there have been 9,716 valid qualified certificates, which is about half the value reported before.
- The Serbian Post has issued about 1,800 qualified certificates since it started operation in December 2008. The Serbian Chamber of Commerce started to issue qualified certificates recently and the Ministry of interior will begin issuing qualified certificates for biometric IDs by the end of the first quarter of 2010.
- In the other four countries, no provider issues qualified certificates. Montenegro reported that 24% of enterprises use electronic signatures.

Table 15 below provides an overview of electronic signature regulations.

	HR	MK	TR	AL	BA	ME	RS	XK
Legal recognition requirements on electronic contracts and electronic signatures transposed	✓	✓	✓	✓	✓	✓	✓	✓
Prior authorisation not required before market access	✓	*	*	✓	*	*	*	✓
Supervision system established	✓	✓	✓	✓	✗	✓	✓	✗
Voluntary accreditation scheme established	✓	–	–	–	–	–	–	–
Number of certification-service providers issuing qualified certificates	1	2	4	–	–	–	2 (3)	–
✓ = transposed/established, ✗ = not established although required by the Directive – = not established, * = potential problems for market access								

Table 15 - Electronic signature regulation and market data

Q. 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 16 - 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 and Serbia 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 17 - 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 17 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.⁸⁴ 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 came 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 and Turkey has drafted amendments to a bylaw. Serbia will regulate data retention in its future Law on electronic communications.

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 18 - Data retention obligations

⁸⁴ ECJ February 10, 2009, case C-301/06 Ireland v Parliament and Council

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 of the Electronic Commerce Directive. It requires that unsolicited e-mails must be clearly identifiable and that the sender must respect opt-out registers. However, the law in Kosovo explicitly allows sending unsolicited e-mails, whereas on EU level the Electronic Commerce Directive left this question undecided and the Privacy Directive later required Member States to prohibit spam addressed to individuals.

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 if there are high prices, users will choose a domain name under a generic top-level domain or under the country code top-level domain of another country.

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

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

1. National domain name registry and policy

In five of the monitored countries, an academic institution has the task of the national registry, in particular a university data centre (Bosnia & Herzegovina, Croatia, FYROM and Turkey) or an association of university institutions and ISPs (Serbia).

In these countries there was traditionally no explicit legislation on domain name management. The typical legal basis of the national registry is a ministry or government decision which was the basis of the contract with IANA or ICANN. The national domain name policy was usually decided by the registry itself, for example in the form of the registry's statute or general business conditions.

In Croatia, FYROM and Turkey, works are under way to give domain name policy an explicit legal basis and to separate policy making and the activities of the registry:

- The new Croatian Electronic Communications Act of 2008 provides a legal basis for an ordinance on domain name management. This ordinance is being prepared and it will liberalise the market of registrars. The registry CARNET is currently the only registrar. In future any interested party may become accredited as registrars by CARNET.
- Turkey is preparing a bylaw which will become the legal basis for selecting the national registry.
- In FYROM a national law on the organisation and operation of the National and Research Education Network (NREN) is under preparation. It will establish NREN as new legal entity, which will also take over the function of the national registry.

In Bosnia & Herzegovina and in Serbia there is no explicit legislation on domain name management.

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

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

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

2. Registrars of domain names

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

The monitored countries can be clustered in two groups, as shown in the following table. Kosovo belongs to neither of the groups, because it does not have a top level domain yet. Croatia will move from the “Registry is only registrar” model to the competition model in 2010.

	Competition model	“Registry is only registrar” model
Competition between registrars exists	Yes	No
Countries	BA, ME, RS, TR (in future also: HR)	AL, MK, (currently also: HR)
Who accredits registrars	The registry	–
Electronic interface exists	Yes	No
Number of registrars	ME: 115, RS: 37, BA: 20, TR: 13	1 (the registry)
Price per domain and year	BA: €15 (first year: €41), ME: €10, RS: €5 to €24, TR: €2 to €10 Does not include registrar functions	AL: €25, MK: €9, HR: up to €25, but about 80% of all registered domains are free of charge Includes registrar functions

Table 19 - 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. Croatia, Bosnia & Herzegovina and Montenegro use ICANN’s Uniform Domain Dispute Resolution Policy as the basis of their dispute resolution mechanism; and Turkey is planning to use it.⁸⁵

⁸⁵ <http://www.icann.org/en/udrp/udrp.htm>

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 October 2009 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).

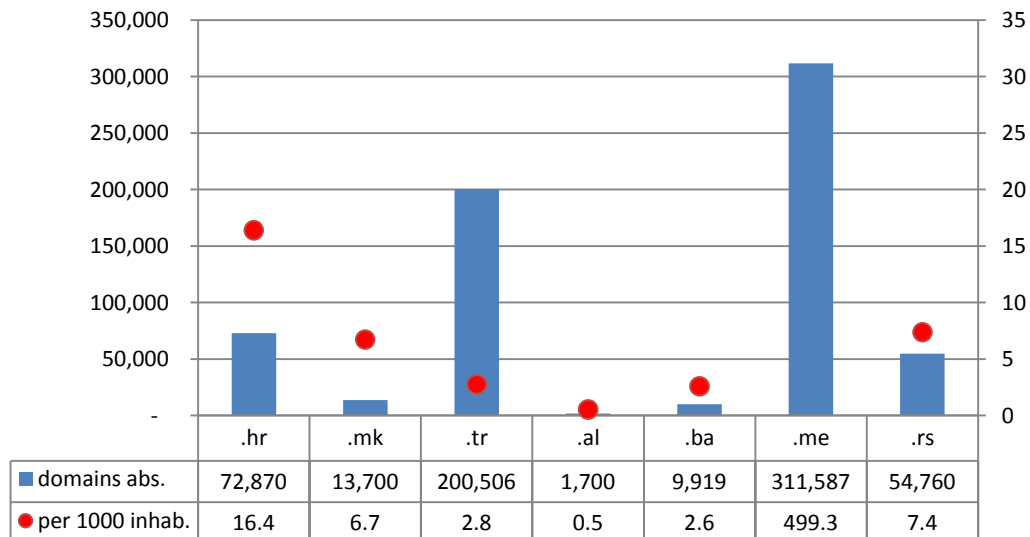


Figure 56 - Domain names, absolute and per 1000 inhabitants

There are several remarkable developments:

- The .me top level domain is highly attractive for foreigners. Montenegro reported 183,232 domain names by October 2009, about 50% more than in Turkey. The number is also growing fast, by about 70% in the nine months since the previous report. Almost all of this interest in Montenegrin domain names comes from other countries. There are about 500 .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 its first year, and the number keeps slightly growing. 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 115 registrars and RNIDS with 37. 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 entered into force on July 1, 2008. It replaced the Telecommunications Act of 2003 as the principal legal instrument for the electronic communications sector, defining the institutional framework, the responsibilities of the government, the ministry and the national regulatory authority. The whole package of the necessary implementing legislation had been adopted in the first half of 2009, bringing the legislative framework in electronic communications into line with the EU 2003 regulatory framework.

A further set of amendments to the law will be drafted in 2010 that are intended to reflect the recently adopted EU 2009 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.⁸⁶ 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).⁸⁷ HAKOM is an autonomous, independent body responsible for carrying out regulatory tasks defined under the Act, including the adoption and administration of implementing legislation within its competencies.

HAKOM is governed by a council comprising seven members, of which two are appointed as the chairman and deputy chairman. During their terms of office, the council members are employed as full-time executives. The council members are appointed and dismissed by the parliament acting on the proposals of the government. Appointment is for a period of five years with the possibility of reappointment. The NRA's administrative service which performs expert, administrative and technical tasks is managed by a director, appointed by the council for a period of four years, with the possibility of reappointment.

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

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

⁸⁶ <http://www.mmpi.hr/default.aspx?id=777>

⁸⁷ <http://www.telekom.hr/Default.aspx>

d) Information society

The Central State Administration Office for e-Croatia is a governmental office headed by a State Secretary. It is responsible for information society policy (in particular the e-Croatia Programme) and Croatia's e-government activities. The National Council for the Information Society has been established as advisory body for information society policy.

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-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 complex authorisation regime combining concessions, individual licences and general authorisation that were granted by the regulator depending on the service characteristics and the use of limited resources.

The Electronic Communications Act of 2008 introduced a 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. By October 1, 2009, alternative operators had 468,315 subscribers with the market share close to 25%. In the fixed network there were 334,983 ported numbers, 497 realised co-locations and 116,232 unbundled local loops.

There are three mobile operators in Croatia with own 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 band. All three operators were issued spectrum licences in the 2100 MHz and have launched commercial 3G services. By July 2009, with 141% mobile penetration the number of broadband users over mobile networks was 198,569, which gives a penetration of 4.5% per 100 population.

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

In October 1, 2009 there were 96,352 ported numbers in the mobile networks.

By July 2009 the fixed broadband penetration in Croatia was the highest among the monitored countries: 13.44% per 100 population, above the level of Romania (12.30%) and Bulgaria (11.90%) that joined the EU in 2007. In addition to 595,930 fixed broadband lines, there were 774,021 narrowband connections. The total market share of alternative providers had reached 17.5% by number of connections.

5. Significant market power

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

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

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

Asymmetric regulatory obligations were applied by HAKOM in two markets: in the market for mobile call termination a lighter set of regulatory obligations were imposed on Tele2 as opposed to T-Mobile and VIPnet, and in the market for fixed call termination lighter obligations were imposed on alternative operators as opposed to T-Com.

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

- public voice services in mobile networks;
- wholesale SMS termination on individual mobile networks;
- wholesale transit services in public fixed network; and

- wholesale access and call origination from public mobile networks.

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

6. Competitive safeguards

The following key competitive safeguards foreseen have been implemented:

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

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

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

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

A tender procedure was launched in July 2009 to develop cost models for determining prices for wholesale services defined in reference offers of operators with SMP. In August 2009 HAKOM approved T-Com’s regulatory accounting documentation based on HCA/FAC methodology and is now analysing the first draft regulatory financial statements and reports on unit costs for 2008. HAKOM is also reviewing T-Com’s regulatory accounting documentation based on CCA/LRIC methodology.

7. Universal service and consumer issues

The NRA is the main body responsible for the implementation of the universal service and consumer issues, including the resolution of disputes between service providers and end users. It can designate one or more providers of universal service based on a public tender procedure. Under the previous Telecommunications Act of 2003, a public voice telephony service provider with a market share greater than 80% could be required to provide universal service without a tender procedure. 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.

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

8. European Union

In October 2009, the European Commission noted that good progress has been made in the field of electronic communications and information technologies.⁸⁸ Following the adoption of the Electronic Communications Act, the necessary implementing legislation has been adopted. Liberalisation of the sector has continued to progress significantly, in particular in the broadband market. Market analysis procedures and regulations are well under way, but one critical aspect relates to costing methodology to be applied to dominant operators. The Commission, however, criticised a recent governmental initiative to introduce a 'crisis tax' on mobile services considering it to be a measure that goes against the current EU strategy to promote Europe's digital economy as one response to the present economic downturn.

9. Outlook

Croatia fulfilled the EU accession requirements for Information Society and Media at the end of 2008. A new legislative effort in 2010 will be aimed at aligning the Croatian law with the provisions of the EU 2009 regulatory framework.

The main priorities of the regulator are concluding 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.

⁸⁸ Croatia 2009 Progress Report. [SEC\(2009\)1333](#).

B. The former Yugoslav Republic of Macedonia (FYROM)

1. Legal and institutional framework

a) Electronic Communications Law

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

In 2009 a set of amendments to the Electronic Communications Law were proposed that are largely focused on institutional issues. The amendments address the division of tasks between the regulatory body and the ministry and their specific responsibilities, procedural issues related to the appointment and dismissal of the NRA commission members and its director, transparency of the NRA activities and its accountability. They also clarify the designation mechanism for universal service providers and improve transparency with regard to prices and quality of the universal service. Other issues include removal of the requirement for the regulator to carry out market analyses at least once every year, which has not been achieved in practice, enforcement of obligations imposed on operators with SMP and protection of the end user rights. The amendments are expected to be adopted in the first half of 2010.

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.⁸⁹

c) Agency for Electronic Communications

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

AEC is governed by a commission consisting of five members, including the president, who acts as a chairperson of the commission meetings. The president and the other members of the commission are appointed and dismissed by parliament. AEC's day-to-day activities are managed by a director, engaged as a professional full-time employee. The director is appointed by the commission following a public competition procedure. The terms of office of the AEC commission members and its director are five years, with a possible reappointment for an additional consecutive five-year term.

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

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

d) Information society

The Ministry of Information Society, 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.

⁸⁹ <http://www.mtc.gov.mk/>

The Statistical Office is responsible for information society statistics. The Ministry of Finance is supervisory authority for electronic signature. There is no clear designation of responsibilities for network and information security. The Macedonian Academic Research Network operates as the national domain name registry.

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

2. Regulatory independence

a) Privatisation and operational independence

The privatisation process of the incumbent operator, Makedonski Telekom, was launched in January 2000, when the government agreed to sell 51% of the shares to Magyar Telekom, a major Hungarian telecommunication operator and part of the Deutsche Telekom Group. In 2006, further shares in Makedonski Telekom were sold to institutional investors. Currently, the government controls a 34.81% stake plus one 'golden share' in the incumbent operator. The state ownership and control functions are exercised by the Ministry of Finance.

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

b) Administrative independence

Under the 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 amendments⁹⁰ 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.

90

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

The main competitors are On.Net and Cosmofon, a mobile operator that is also active in the fixed telephony market; both are now controlled by Telekom Slovenije. From November 11, 2009 On.Net and Cosmofon operate under the new brand 'One'.

NB. On October 16, 2008 the Macedonian Commission for Protection of Competition approved the acquisition of the controlling stake in the Greek incumbent, OTE, by Deutsche Telekom subject to the condition that OTE had 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 completed in April 2009.

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

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 Competition⁹¹ and the EU 2003 regulatory framework.

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

During 2009, AEC has analysed the following markets, with inputs from the Competition Commission and consultation with the market participants:

- retail fixed access and call markets (markets 1-6/2003);
- retail and wholesale leased lines (markets 7, 13 and 14/2003);
- wholesale voice call termination in individual mobile networks (market 16/2003); and
- wholesale national market for international roaming (market 17/2003).

AEC final decisions resulting from these market analyses are expected to be adopted shortly.

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 the fixed network is 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.

⁹¹ <http://www.kzk.gov.mk/eng/law.asp>

- RIO of the fixed incumbent operator, Makedonski Telekom, is available since February 2006. The latest revision of RIO took place in August 2009.
- 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 is available since May 2006 but so far there has been only one agreement on LLU between Makedonski Telekom and On.Net (One). Following adoption of the 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.
- Cost-oriented fixed interconnection and LLU charges based on forward-looking top-down LRIC methodology were approved in May 2008.
- Wholesale line rental (WLR) had been offered commercially since November 2008. The first regulated WLR offer was approved by AEC in March 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%'.
- Wholesale bitstream access (BSA) with handover at IP-level and broadband resale had been offered commercially since 2007. The first regulated BSA and resale offers of Makedonski Telekom were approved by AEC in July 2009, following adoption of the new bylaw on wholesale bitstream access and resale in December 2008.
- Number portability in fixed and mobile networks is available since September 1, 2008. The maximum time frame for the number transfer from the donor to the recipient operator is two working days and the maximum inter-operator fee for number porting has been set by AEC at MKD 200.00 (€3.3).

In 2009 AEC initiated work on developing bottom-up LRIC models for operators with SMP in fixed and mobile markets and calculating WACC that will be applied for setting cost-oriented LLU and interconnection charges.

7. Universal service and consumer issues

The scope of universal service includes the following elements:

- access to publicly available telephone services at a determined geographical location, making and receiving local, national and international telephone calls, facsimile communications and data communications at a minimum speed of 2,400 bps;
- access to the single telephone directory and directory enquiry services;
- provision of public payphones;
- equivalent access to, and use of, publicly available telephone services for disabled end-users, including access to emergency calls services and information in single directory.

No universal service provider has been designated, although some of the elements have been provided by the incumbent operator. AEC 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 pending adoption of the amendments to the universal service provisions in the Law on Electronic Communications.

8. European Union

The European Commission noted significant progress in the area of electronic communications.⁹² In particular, the Commission recognised as a positive development the adoption by the AEC of the implementing legislation on retail price control, wholesale line rental, bitstream access and the enforcement of regulatory obligations on the operators with SMP.

Following the recruitment of additional staff by AEC, its administrative capacity is now considered satisfactory, although AEC has not yet allocated sufficient resources for conducting market analyses. On the contrary, the administrative capacity of the Ministry of Transport and Communications is still insufficient. Other open issues include the unclear provisions on authorisation for construction works and right of way, in particular regarding the division of responsibilities between the Ministry of Transport and Telecommunications and municipalities, and implementation of the emergency number 112.

9. Outlook

Capacity of the regulator has been enhanced and market analysis process is now well under way, but AEC has yet to reach its resulting regulatory decisions. Progress is being made in cost modelling which will further benefit the wholesale conditions.

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

⁹² The former Yugoslav Republic of Macedonia 2009 Progress Report. [SEC\(2009\)1335](#).

C. Turkey

1. Legal and institutional framework

a) Electronic Communications Law

The new Electronic Communications Law no. 5809⁹³ 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 entered into force on May 10, 2009.

b) Ministry of Transport

Ministry of Transport defines the state strategies and policies for the electronic communications sector 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 Technology and Communications 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

⁹³ 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, but not the Electronic Commerce Directive. It also has not ratified the Cybercrime Convention, but the crimes listed in this convention are considered as criminal offences in the Turkish Criminal Code.

A law⁹⁴ enacted in 2007 obliges Internet service providers to block access to websites, if content hosted on these websites constitutes one of the crimes enlisted in this law. Blocking orders can be issued by courts or by the Telecommunication Communication Presidency of the regulator ICTA. The law has been criticised as it does not contain a mechanism ensuring proportionality of the blocking orders. Many popular video portals such as YouTube are blocked as a whole because of individual videos that were considered as infringing the law. According to a recently published report of the OSCE⁹⁵, access to approximately 3,700 websites had been blocked by December 2009.

2. Regulatory independence

a) Privatisation and operational independence

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

The state currently owns 30% of shares of Türk Telekom, in addition to its golden share. It also controls the Turkish satellite and cable TV operator Türksat, and remains an important shareholder in the mobile operator, Avea, which is 81.1% owned by Türk Telekom. The ownership and golden share functions are exercised by the Treasury.

⁹⁴ Law no. 5651, dated May 4, 2007, on regulation of publications on the Internet and combating crimes committed by means of such publications

⁹⁵ Organization for Security and Co-operation in Europe, Report of the OSCE Representative on Freedom of the Media on Turkey and Internet Censorship, January 2010, http://www.osce.org/documents/rfm/2010/01/42294_en.pdf

b) Administrative independence

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

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

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

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

b) Market access

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

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

4. Market structure

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. From May 2009, alternative operators can also offer local telephone services in competition with the incumbent. The provision of Internet services is dominated by the incumbent's subsidiary TT Net providing over 90% of all fixed Internet connections. The competitors are mainly using the wholesale bitstream access offer from Türk Telekom, while the use of LLU is insignificant.

There are three mobile operators in Turkey with 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 and commercial services have been available since July 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 follow the definitions of the 16 relevant markets according to the European Commission Recommendation of 2003 (excluding international roaming and broadcasting transmission services) 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 designated all three MNOs, Turkcell, Vodafone and Avea as having SMP in voice call termination on individual mobile networks (16/2003), while Turkcell also as having SMP in the mobile access and call origination (15/2003).
- 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.

Most of remedies were predefined in the 2007 Ordinance on Access and Interconnection and triggered automatically by SMP designation.

Following adoption of the new Electronic Communications Law, Turkey has adapted its telecom rules to make them resemble closer the EU 2003 telecom package. Relevant product markets are to be defined using a substitutability analysis, the concept of the three criteria test is introduced and remedies are to be imposed in a proportional way rather than as a default set.

In September 2009 ICTA issued a new Ordinance on *'operators with significant market power in the electronic communications sector and obligations that can be imposed on them'*⁹⁶. The ordinance replaces the 2007 ordinance on *'principles and procedures for determination of the operators with significant market power'*, which was limited to interconnection only. Furthermore, whereas the 2007 ordinance mechanically imposed the same remedies on all operators designated as having SMP in a given market, the new ordinance allows the regulator to impose different sets of remedies upon different operators.

Based on the new ordinance, ICTA carried out its second round market analysis (same 16 markets as in the first round). Final decisions on all markets, with the exception of the wholesale fixed transit services (expected to be concluded shortly), were adopted in December 2009 – January 2010.

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

In addition, in the market for call termination on individual fixed networks, ICTA designated all alternative operators that 'have been assigned fixed subscriber numbers' as having SMP and subject to lighter asymmetric regulatory obligations. Currently there are no alternative network operators active on the Turkish market, so the decision takes a forward-looking perspective on the market developments.

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

6. Competitive safeguards

The following competitive safeguards have been implemented:

- CS/CPS on fixed network has been available since 2006 for long-distance and international calls, as well as for call to mobile numbers; it is not yet available for local calls.
- RIOs have been published by Türk Telekom and by the mobile operators with SMP. ICTA approved Standard Reference Interconnection Rates (SRIR) for call origination and termination on the public fixed telephony network of Türk Telekom and for call termination on the mobile networks of Turkcell, Vodafone and Avea, applicable from May 1, 2009. As a result, mobile termination rates were reduced by 30%.

⁹⁶ <http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelikler/2009/EPG.doc>

- RUO has been available since November 2006. In June 2009 ICTA lowered the one-off charges for local loop unbundling by more than 30% and the monthly fee for fully unbundled lines by 10%.
- Regulated reference offers for wholesale bitstream access and resale were introduced in August 2007. Initially wholesale bitstream access was available only at IP-level, but from June 2009 the first reference offer for bitstream access at ATM level was made available. Wholesale broadband access prices were significantly reduced by ICTA during 2009.
- Number portability was implemented in November 2008 in mobile networks with over 7.5 million numbers ported within the first year from its introduction. Number portability in fixed network was introduced in September 2009.

7. Universal service and consumer issues

Under the Universal Service Law no. 5369 of June 16, 2005, the scope of universal service covers fixed telephone services, public payphones, printed or electronic directory services, emergency call services, basic internet services, passenger transport services to places that can be reached only through sea transport, and maritime emergency and security communications services.

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

- services oriented to spread information technologies, including computer literacy, to help the development of information society (February 2006), and
- digital broadcasting services utilising various broadcast media and technology via digital terrestrial transmitters and covering the entire settlements countrywide (April 2006).

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

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

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

These can be increased by up to 20% by the Council of Ministers. The revenues are collected by the Treasury and allocated to the budget of the Ministry of Transport, although no payments have been made to operators.

8. European Union

The European Commission recognised the adoption of the Electronic Communications Law no. 5809 and implementing by-laws as “a significant step towards aligning Turkey’s regulatory framework with the EU *acquis*, notably as regards the authorisation rules and the tasks of the regulator”.⁹⁷

The Commission also noted the progress in implementing the competitive safeguards, in particular in the mobile market, and the reduction of the tax on Internet services from 15% to 5%.

⁹⁷ Turkey 2009 Progress Report. [SEC\(2009\)1334](#).

However, the Electronic Communications Law is not fully in line with the *acquis*, in particular the provisions on universal service obligations, and as regards the scope of authorisation rules, which does not apply to existing concession agreements. Furthermore, the SMP and market analysis procedures lack a firm legal basis in the Electronic Communications Law. A detailed review of primary and secondary legislation against the requirements of the *acquis* would enable to identify remaining shortcomings in the legislation on electronic communications.

Clarification of the distribution of tasks between ICTA and the Competition Authority is needed. The principles of cost-accounting and accounting separation are not fully applied by dominant operators on the mobile market. High taxation on communication services unrelated to administrative costs for regulating the sector remains a problem.

As regards information society services, Turkey's legal framework is well aligned with the *acquis* on network security obligations and cybercrime. However, Turkey is not a party to the European Convention on the Legal Protection of Services based on Conditional Access. The legislation on e-commerce and the Electronic Signature Directive is not in line with the *acquis*. The Commission called the frequent website bans a cause for concern and highlighted the need for stronger guarantees of respect of freedom of expression with regard to access to the Internet.

9. Outlook

The competitive situation, notably in the fixed telephony and Internet and broadband markets, has not improved and this highlights the need for effective implementation of regulatory obligations as the primary tasks for the NRA. Following the recently completed market analyses, the priority would be effective implementation and enforcement of the regulatory obligations, in particularly the new remedies in the fixed markets, such as WLR and naked DSL.

With the reduction in fixed wholesale charges and introduction of broader scope of wholesale broadband access options along with the fixed number portability, market conditions for alternative service providers should improve significantly.

D. Albania

1. Legal and institutional framework

a) Law on Electronic Communications

Law no. 9918 of May 19, 2008 on Electronic Communications that entered in force on June 26, 2008 is the principal legal instrument for the regulations of the electronic communications sector and defines the institutional framework, including the responsibilities of the government, the relevant ministry and the national regulatory authority. It is based on the EU 2003 regulatory framework for electronic communications and replaces the previous Law no. 8618 of June 14, 2000 on Telecommunications.

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

b) Law on Public and Private Radio and Television

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

c) Ministry of State for Reform and Parliamentary Relations

Until September 2009, the Ministry of Public Works, Transport and Telecommunications was the central state administration body competent for electronic communications and postal services.⁹⁸ The day-to-day work was carried out by the Directorate of Post and Telecommunications.

On September 30, 2009 the Prime Minister Decision no. 1057 assigned to the Minister of State for Reform and Parliamentary Relations⁹⁹ the competencies for electronic communications, as defined in Law no. 9918 on electronic communications. These are drafting policies for electronic communications sector subject to approval by the Council of Ministers, drafting relevant primary and secondary legislation, preparing the National Radio Frequency Plan. Other responsibilities include approval of tender procedures for frequency assignment and designation of universal service providers, based on proposals by the regulator.

A draft policy on electronic communications for the period from 2010 to 2014, replacing the policy paper adopted in 1999, has been prepared with EBRD assistance and submitted to the Council of Ministers.

The key features of the new policy are further liberalisation, European integration and convergence. The main implementation focus will be to address Albania's underdeveloped telecommunications infrastructure, spectrum liberalisation, universal service and users' rights, public funding and competition rules, plus improved access to public and private property.

d) Authority of Electronic and Postal Communications

The Law on Electronic Communications established the Authority of Electronic and Postal Communications (AKEP) as the regulatory authority that took over in 2008 the tasks and responsibilities of the previous regulator, the Telecommunications Regulatory Entity (TRE).¹⁰⁰ 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.

⁹⁸ www.mpptt.gov.al/

⁹⁹ www.km.gov.al

¹⁰⁰ www.ert.gov.al

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

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

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

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

e) Information society

Since the rearrangement of the government competencies in September 2009, the Minister of State for Reform and Parliamentary Relations is responsible for information society policy and proposing information society legislation. The Minister is supported by the National Agency on Information Society (NAIS)¹⁰¹, which was established by a decision of the Council of Ministers in April 2007 and became operational in September 2007. The government recently decided to increase NAIS' budget and staff significantly.

NAIS is responsible for supporting the Minister in proposing the national strategy on the information society, drafting information society legislation, coordinating ICT projects of the government, standardising technical requirements for governmental IT equipment and providing technical assistance to other government bodies.

On January 21, 2009 the Council of Ministers approved the new national strategy on information society, which was prepared by NAIS.

The Institute of Statistics (INSTAT) is responsible for information society statistics, but such statistics are not yet available. A National Authority for Electronic Certification¹⁰² 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, the Electronic Commerce Directive and the Cybercrime Convention.

2. Regulatory independence

a) Privatisation and operational independence

On June 19, 2007, after a two-year period of negotiations over the privatisation of 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

¹⁰¹ <http://www.e-albania.al/>

¹⁰² <http://www.akce.gov.al/>

government agreed to sell the rest of its stake in AMC to Cosmote, who controls following the transaction, directly and indirectly, 95% of AMC.¹⁰³

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.

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

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

The November 2009 dismissal and replacement of the entire AKEP's governing council follows a similar replacement of the previous NRA governing council that took place 18 months earlier and it has again undermined NRA independence. The procedures for these dismissals did not appear to be sufficiently clear and transparent, giving rise to concerns that they could have been politically motivated.

3. Market access and authorisations

The liberalisation of fixed electronic communications networks and services was introduced gradually: starting with rural local networks in 1998, then domestic long-distance networks in July 2003 and international networks in January 2005. Amendments to the Law on Telecommunications adopted in November 2006 introduced a new concept of regional licences for rural, urban, and domestic long distance networks and effectively opened urban local networks for competition. The relevant implementing legislation was approved by the regulator only in April 2007.

Before the entry into force of Law no. 9918 on Electronic Communications in June 2008, no effective competition had emerged in the provision of international interconnection connectivity.

Law no. 9918 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.

Law no. 8410 on public and private radio and television still requires the licensing of cable TV operators. An amendment to this law is proposed for 2010 to introduce notification procedure in line with the requirements for telecommunications operators.

103

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

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.

The number of the fixed telephony users on July 1, 2009 is estimated to have increased by 15% since July 1, 2008 to a total of 360,000, which is a penetration rate of 11.3 per 100 population. The increase is due to the increase of the number of users of the alternative operators as well as Albtelecom's users during the first half of 2009.

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 and the new operator is required to launch its services within six months. By the end of 2009, the new 2G operator had not launched its services.

3G licences in the UMTS band have not yet been awarded. The action list of the draft new policy for electronic communications foresees to make the 2.1 and 2.6 GHz bands as well as the 3.4–3.8 GHz band available on technology neutral basis in due course and to launch a public consultation in March 2010.

On July 1, 2009, the number of mobile telephony users reached 3.52 million, which indicates an increase of 1 million users from July 1, 2008. The penetration rate reached 110% in July 2009, compared to 78% a year earlier.

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.

Law no. 9918 on Electronic Communications provides for market analyses, the definition of relevant markets, SMP designations and the imposition of remedies on SMP operators based on the competition principles in Law no. 9121 on the Protection of Competition and on the EU regulatory framework.¹⁰⁴ AKEP is required to carry out market analyses at least once every two years. Until the first round of market analyses under the new framework has been completed, the previous SMP designations and regulatory obligations remain in force.

In July 2009, following public consultation, AKEP approved a Regulation on Markets Analyses. The Regulation defines a list of 18 markets to be analysed by the NRA. The list largely corresponds to the 18 relevant markets identified in the EC Recommendation of February 11, 2003, with the exception of the wholesale broadcasting services which are not within the competence of AKEP, the telecoms market regulator. Instead, the list includes retail market for mobile services. AKEP may also identify and analyse additional markets provided that the “three criteria test” is met.

AKEP has launched market analyses on most of the main wholesale and retail markets during 2008 and 2009, with only broadband market analysis still to be addressed:

- A two months public consultation ended in September 2009 on analysis of mobile wholesale markets for call termination, access and call origination and mobile retail market.
- Analyses of fixed retail access and call services and fixed wholesale interconnection markets were published for a consultation in September 2009.
- A public consultation on wholesale and retail leased lines markets started in November 2009 and ended in January 2010.

6. Competitive safeguards

Implementation of the key competitive safeguards has started in Albania in 2007 and has continued, with re-enforcement coming from the passing of Law no. 9918 in June 2008.

- The first RIOs of the three operators with SMP (Albtelecom, AMC and Vodafone) were submitted to the NRA for approval in March 2008. RIOs were finally approved and published on February 18, 2009 with some changes enforced by AKEP.
- The price control regulations for retail and wholesale tariffs of the three operators with SMP (Albtelecom, AMC and Vodafone) for the period from September 1, 2008 until August 31, 2010 were approved by the Council of Ministers on June 18, 2008 (as part of its competencies under the previous law). The price control methodology is price caps with several implementation phases.
 - The fixed network operator Albtelecom’s tariff rebalancing process continued in March and September 2009 with the application of the second and the third phases of retail tariff regulation methodology. Monthly rental and retail local calls tariffs were increased, while the tariffs for national, international and fixed to mobile calls were significantly reduced.
 - In September 2009, the second phase of mobile retail tariffs reduction was applied to two pre-paid programs of AMC and Vodafone. The tariffs for end users for selected programs were reduced on average by 20%. This brings the cumulative retail price reductions over two years to over 30% for on-net calls and over 40% for off-net calls.
 - Also in September 2009, the NRA implemented the second phase for AMC and Vodafone and the third phase for Albtelecom of wholesale interconnection tariff regulation methodologies. The cumulative impact of these methodologies since September 2008 has been a 31.2% reduction in call termination charges on mobile networks by and between 33% and 41% reduction on Albtelecom’s fixed network.
- AKEP published a revised regulation on access and interconnection in August 2009, updating the one adopted in December 2007. Public consultation on this new regulation ended on October 30, 2009.

¹⁰⁴ <http://go.worldbank.org/BKB2R8ZAT0>

- In August 2009 AKEP published a draft regulation on procedures for dispute resolution between operators. Public consultation was also completed in October 2009.
- Following market reviews of wholesale and retail markets carried out during 2009, the key competitive safeguards including LLU, CS/CPS and cost orientation of wholesale charges have been imposed as the regulatory obligations on Altelecom but not yet implemented in practice.
- For the implementation of cost-oriented wholesale charges, AKEP selected two international consulting companies to construct a model that will calculate the costs of fixed and mobile services, based on Bottom-Up Long Run Average Incremental Cost (BU-LRAIC). The results are not expected to be available until early 2010.
- Public consultation on the implementation of number portability in fixed and mobile networks took place during the first half of 2009. However, no decision on the implementation has been adopted so far, so the deadline of June 2009 defined in Law no. 9918 has been missed.

7. Universal service and consumer issues

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

8. European Union

The European Commission noted that the new policy paper for electronic communications has not yet been approved and implementing regulations for the law on electronic communications are still pending adoption. Fixed market liberalisation was assessed as being still at a “*relatively early stage*” and held back by lack of implementation of competitive safeguards such as carrier selection and pre-selection, number portability and unbundled access to the local loop.¹⁰⁵ Tariff re-balancing is underway but has not been completed.

The Commission acknowledged the increased administrative capacity of AKEP with additional staff and specific training and commented on the internal conflicts within its Governing Council as hindering its decision making process and bringing regulatory development to a standstill. The Commission also noted insufficient capacity at the Ministry of Transport, Public Works and Telecommunications.

The Commission observed some progress on information society services addressing the approval of the inter-sector strategy for the information society in January 2009, amendments to the Criminal Code and the Criminal Procedure Code adopted in late 2008 in line with the requirements of the Convention on Cybercrime. Other measures include adoption of the Law on Electronic Commerce in May 2009 and implementing regulations for the Electronic Signature Law.

There has been very limited progress as regards audiovisual policy. In November 2008 the National Council for Radio and Television (NCRT) finalised the draft strategy for the switchover from analogue to digital broadcasting and launched a consultation process with state institutions and broadcasting operators. The draft Broadcasting Law was finalised in April 2009 but implementation of the Action Plan on media reform agreed with the European Commission and the Council of Europe has been slow.

9. Outlook

Despite 10 years of progressive market liberalisation, Albania remains under invested in terms of telecommunications infrastructure, with very low fixed and broadband service penetration.

The recent growth of mobile subscriptions, especially since the third GSM operator Eagle Mobile launched its services in March 2008, has been impressive. The fourth GSM operator licensed in early 2009 is expected to launch its service in 2010 into a market that now already has 110% penetration. UMTS and

¹⁰⁵ Albania 2009 Progress Report. [SEC\(2009\)1337](#).

fixed broadband wireless spectrum has not yet been made available, although this should be remedied in 2010, enabling both fixed and mobile services to expand.

Some concern remains that the frequent dismissals (twice in 18 months) of all the members of the NRA Governing Council will continue to add to the market uncertainties. Investor confidence will be improved if the new AKEP Governing Council improves its internal governance and implements the remaining competitive safeguards foreseen in the Law no. 9918 on Electronic Communications.

E. Bosnia and Herzegovina

1. Legal and Institutional framework

a) Law on Communications

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

b) Council of Ministers and Ministry of Communications and Transport

The Council of Ministers is responsible for adopting policies for communications. The Ministry of Communications and Transport drafts policies and prepares primary and secondary legislation. Under the Law on Communications, the Council of Ministers is also responsible for defining the scope of the universal service, designating the providers and establishing the funding mechanism, based on proposals of the NRA.

Telecommunications Sector Policy adopted by the Council of Ministers is the main policy document that sets out the priorities for telecommunications services and infrastructure development, defines specific regulatory objectives and an action plan for their implementation by the Ministry of Communications and Transport and the NRA. Following the expiry of the previous sector policy in December 2007, adoption of the new policy by the Council of Ministers was delayed by over a year. This resulted in a regulatory vacuum 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, with a one year delay, on December 18, 2008.¹⁰⁶

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.

¹⁰⁶ <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.

Information society statistics are not available and it has not yet been decided which body will be responsible for it. If ARID will be established, the statistical institutes will become in charge of data collection and ARID for distributing the results.

Bosnia & Herzegovina also has not designated a body responsible for network and information security. The Law on electronic communications obliges operators to ensure network security, but the legal framework does not penalise illegal interception. The Convention on Cybercrime was ratified, but the Criminal Code has not yet been amended accordingly. None of the crimes listed in the Convention is included in the Criminal Code.

Bosnia & Herzegovina has transposed the Electronic Commerce Directive and the Electronic Signatures Directive, but has not established a supervisory body for electronic signatures. It is a potential problem for market access of certification service providers issuing qualified certificates, that the law requires notification to a supervisory body which does not exist. No provider offers qualified certificates.

The University Teleinformatic Centre is the national domain name registry.

Republika Srpska considers information technologies as being an entity competence. It adopted its own laws on electronic commerce, electronic signature and electronic documents and established its own Agency for Information Society.¹⁰⁷

2. Regulatory independence

a) Privatisation and operational independence

There are three incumbent operators, one in each of the three territories. The Federation government of Bosnia & Herzegovina retains 90% ownership in BH Telecom (Sarajevo) and 50.10% in Hrvatske Telekomunikacije – HT (Mostar), with the ownership functions performed by the Federal Ministry of Transport and Communications. The third incumbent operator, Telekom Srpske in the Republika Srpska is now fully privatised. In December 2006, the Serbian incumbent operator, Telekom Srbija, won the tender for the privatisation of 65% of Telekom Srpske with a bid of €646 million. The privatisation was finished in July 2007, 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 administrative and financial independence of RAK. In particular, it states that neither the Council of Ministers, nor any individual minister may in any way interfere in the decision-making of the Agency in individual cases.

Under the Law on Communications RAK Council was also authorised to decide on the salary structure for its staff, including grades and any bonuses. The new Law on Salaries and Allowances for Civil Servants adopted on June 23, 2008, however, has limited RAK's independence and administrative capacity by bringing the salary levels of its employees within the pay scales for civil servants. Under this law RAK must follow the established scales for the basic salary levels and is only able to increase salaries of its employees through an additional "regulatory" bonus scheme.

A further factor that undermines the independence of RAK is the present uncertainty over the appointment of the Director General and the nomination of RAK Council members. After the mandate of the Director General had expired in 2007, RAK Council proposed to re-appoint him for another term. On September 27, 2007 the Council of Ministers rejected this proposal and requested RAK to repeat the selection procedure for the appointment of the new Director General. After a two-year delay, no new procedure has

¹⁰⁷ <http://www.aidrs.org/>

been initiated and no new Director General of RAK has been appointed. The present Director General retains his position without the formal approval of the Council of Ministers. The nomination of RAK Council members, which was due to be finalised in April 2009, also remains unresolved.

With delays in policy approval and still with no appointed RAK General Director and Council, the adoption of several decisions on broadcasting and telecommunications prepared by the RAK has been delayed. This affects negatively the dynamics of competitive development and hampers RAK administrative capacity.

3. Market access and authorisations

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

The one-off administrative charges for fixed and mobile telephony networks and services are BAM 1,000 (€511) and BAM 500 (€255) for Internet services. The annual fees depend on the scope of provided services.

In July 2009 RAK reduced annual fees from BAM 500,000 (€255,600) to BAM 450,000 (€230,080) for public fixed telephone services with own network infrastructure and from BAM 70,000 (€35,800) to BAM 55,000 (€26,000) for public fixed telephone services without own networks. In August 2009 annual fees for 2G mobile network operators were also reduced from BAM 600,000 (€307,000) to BAM 550,000 (€281,200). ISPs pay BAM 4,000 (€2,100) a year.

The sector policy provides for the future transition to a general authorisation framework.

4. Market structure

The specific aspect of Bosnia & Herzegovina is the existence of three regional incumbent operators on each of the three ethnic territories: BH Telecom based in Sarajevo, Telekom Srpske in Banja Luka and Hrvatske Telekomunikacije in Mostar. Each of the three incumbent operators operates its own public fixed telephony network.

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: nine 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.

In December 2009 RAK designated¹⁰⁸ the three incumbent operators, BH Telecom, Telekom Srpske and HT Mostar as having SMP in the following three markets: public fixed telephone networks and services, public mobile telephony services and leased lines. The scope of regulatory obligations includes: non-discrimination, cost orientation, transparency, access and interconnection, price control, reference offer, and – for fixed networks – provision of CS/CPS.

¹⁰⁸ RAK decision of December 28, 2009 (Official Gazette of BiH 05/2010)

6. Competitive safeguards

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

- Tariff rebalancing is still at an early stage. The CRA adopted in March 2009 a model for the rebalancing of tariffs for telephony services until 2012, which is due to be applied as of January 2010.
- CS/CPS was introduced in July 2007 but remains at an early stage with six alternative operators providing CS services.
- RIOs for the three fixed incumbent operators are available since November 2005. The updated RIOs were published in November 2009.
- RAK regulations on LLU were adopted in 2008. The first RUOs were published in January 2010.
- Number portability in fixed and mobile networks is expected to be implemented in 2010.
- The sector policy foresees adoption of the necessary authorisation framework and amendment of RIOs of the mobile operators to enable market entry for MVNOs.

7. Universal service and consumer issues

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

Currently, the requirement to offer the minimum scope of universal services is included in the licences of the three incumbent operators. This covers provision of the following services: connections to the public fixed telephone network at a fixed location and access to public fixed telephone services at affordable prices, allowing users to make and receive national and international calls, supporting speech, facsimile and/or data communications; provision of directories and directory enquiry services; public pay phones; free access to emergency services.

A draft regulation on a more comprehensive universal service framework was submitted by RAK for approval by the Council of Ministers in December 2008, but its adoption is still pending.

8. European Union

The European Commission emphasised the need of further reform of the regulatory framework for electronic communications sector.¹⁰⁹ The progress in implementing the key competitive safeguards has been limited largely due to the delayed adoption of the sector policy.

The Commission also expressed its concerns over the increased challenges to the NRA independence addressing the difficulties in the dialogue between the NRA and the Council of Ministers, delayed appointment of the Director General and nomination of RAK Council members. In addition to a duly appointed Director General and Council, RAK also needs additional human resources and expertise, to continue to perform its tasks and responsibilities and to be able to proactively support the development of the communications and broadcasting market. The Ministry in charge of communications also needs to strengthen its administrative capacity.

The progress in the area of information society services has also been limited. No state level law for the development of the information society has been adopted, and no state level agency has been established. In the meantime, Republika Srpska has set up its own information society agency based on the interpretation of the 'information technologies' are an entity competence.

The overall implementation of the rules laid down by the e-Signature Law adopted in November 2006 has been slow. No progress has been made in adopting legislation on conditional access services. Republika Srpska adopted its law on electronic business and developed a strategy for e-government.

¹⁰⁹ Bosnia and Herzegovina 2009 Progress Report. [SEC\(2009\)1338](#).

9. Outlook

Bosnia & Herzegovina needs to undertake efforts to align its legislation with the EU *acquis*. An EU funded project to support RAK is in its initial phase and will also support Bosnia & Herzegovina in harmonising its laws, in particular the Law on Communications, with the EU regulatory framework. The Convention on Cybercrime has been ratified and needs to be transposed in the criminal law. With regard to legislation on electronic commerce and electronic signature there are parallel laws at federal level and in Republika Srpska.

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. Few new entrant operators have become operational since the liberalisation of the market. The three incumbent operators still have close to 100% market share.

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

F. Montenegro

1. Legal and institutional framework

a) Law on Electronic Communications

The Law on Electronic Communications that was adopted on July 29, 2008 (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.¹¹⁰ 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 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 NRA was a Director appointed by the government for a period of four years, with the possibility of reappointment for a second consecutive term. Under the new Law, the NRA is governed by the Council, consisting of the President and four members, while its professional services are managed by the Executive Director. The Council is a decision making body of EKIP that adopts its statutes, internal rules and procedures, approves its work plan, financial plan and annual report presented to the government, and adopts the regulatory measures and the decisions of the NRA. The Executive Director is responsible for organising and managing the professional service of the NRA.

The Council is appointed by the government upon the ministry proposal for a 5 years term of office. The Executive Director is appointed by the Council for a 4 years term of office. Neither the Council members, nor the Executive Director may hold office for more than two consecutive terms.

On December 11, 2008 the government appointed the Council of the NRA. The President and three of the Council members are engaged as full-time employees, and one member – part-time. On January 21, 2009, the Council appointed the former director of the NRA as the new Executive Director of EKIP.

EKIP is established as a self-financing entity, funded from three main sources: administrative fees, numbering and spectrum fees. The amount of fees to be paid to the NRA budget by authorised operators and service providers 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

¹¹⁰ <http://www.vlada.cg.yu/eng/minsaob/>

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

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 and electronic signature. In February 2009 the Strategy for Information Society Development of Montenegro for the period 2009–2013 was adopted.¹¹¹

Information society statistics are not available. The Statistical Office of Montenegro (MONSTAT) is responsible for collecting and publishing statistical data, the Ministry is responsible for benchmarking information society indicators. In previous years, surveys for information society statistics were conducted by different non-governmental institutions, which used methodologies not aligned with Eurostat.

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. A law on ratification of the Convention on Cybercrime has been adopted. Most crimes listed in the convention are already considered as criminal offences in the Criminal Code.

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

¹¹¹ <http://www.gov.me/files/1235731125.pdf>

without individual licences. These services can now be provided subject to a notification submitted to EKIP who must complete the registration within seven days. The one-off registration fee is set at €1,000. Individual authorisations are issued by EKIP for the right to use radio spectrum and numbers.

Under the transitional provisions of article 141 of the Law on Electronic Communications, EKIP harmonised all individual licences issued under the previous law with the new authorisation framework and completed 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 five for FWA services in the 3.4-3.8 GHz band. 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 completed 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, based on the 2007 Commission recommendation on relevant markets. The NRA is now analysing the 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 Crnogorski Telekom was published in December 2004. In April 2008, the NRA approved a new RIO introducing some reductions to interconnection charges based on the EU benchmarks.
- 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 Crnogorski Telekom has introduced CS in its RIO so far.
- In late 2009, EKIP closed the second round of public consultations on the new Rulebook on Number Portability. According to the draft, number portability in fixed and mobile networks has to be implemented by August 27, 2011 at the latest.

- No clear deadline has been established for the implementation of local loop unbundling.

7. Universal service and consumer issues

No universal service provider has been designated so far.

The Law on Electronic Communications provides the 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. On February 17, 2010 EKIP opened the second round of public consultations on the draft regulations on universal service.

8. European Union

The European Commission noted “some progress” in electronic communications, including continued liberalisation of the sector and growth in broadband penetration with the market share of alternative operators reaching 20% by January 2009.¹¹²

However, implementation of the Law on Electronic Communications was delayed by the late nomination of the new Council and the Executive Director of EKIP. The procedure for appointing the members of the Council remains a cause for concern regarding their independence. The late establishment of the agency delayed adoption of implementing legislation, including rulebooks on number portability and local loop unbundling. The administrative capacity of the department for telecommunications policy in the Ministry of Transport, Maritime Affairs and Telecommunications remains weak, although it has improved with the addition of new staff.

The division of responsibilities between the Agency for Electronic Communications and the Broadcasting Agency under the Law on Electronic Communications regarding frequency licensing remains unclear.

The Commission also observed that there has been no progress towards enhancing consumer protection and no revision of the Law on Electronic Communications, adopted in 2008, to better align it with the EU framework.

9. Outlook

Adoption of the new secondary legislation required under the new Law on Electronic Communications remains slow. Approximately ten of the required secondary acts so far have been adopted by the ministry on the proposal of the NRA; including 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.

Other issues that must be addressed are the implementation of competitive safeguards, market analysis procedures and methodologies for price control of wholesale tariffs. 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 has been little change in the level of competition.

¹¹² Montenegro 2009 Progress Report. [SEC\(2009\)1336](#).

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 were completed and its adoption is scheduled in the first half of 2010.

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

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 Society¹¹³ 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 Agency¹¹⁴ 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. A law on electronic commerce, transposing the Electronic Commerce Directive, came into force in June 2009. Serbia also adopted a law on electronic documents. In March 2009 Serbia ratified the Cybercrime Convention. However, most crimes listed in the convention have already been considered as criminal offences in the Serbian Criminal Code before ratification.

Serbia adopted a strategy for the development of the information society in 2006 and several strategic documents in 2009, in particular the e-government strategy, the broadband access strategy, the strategy for the switchover from analogue to digital broadcasting and the action plan for the implementation of the eSEE Agenda+.

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 in 2008. 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.¹¹⁵ Among the main reasons for

¹¹³ <http://www.mtid.gov.rs/>

¹¹⁴ <http://www.rzii.gov.rs/>

¹¹⁵ Mobile network operators have been also authorised to interconnect with international networks.

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 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 August 31, 2009 the new Law on spatial planning and construction prepared by the Ministry of Environment and Spatial Planning was adopted that shortened the deadlines for the granting of building permits for the communications sector.¹¹⁶

4. Market structure

Until recently, Telekom Srbija remained the only licensed provider of public voice telephony services over its own fixed network infrastructure.

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.

To certain extent, there has been 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.

Following the adoption of rules on the provision of VoIP services and on international connectivity in 2008 twenty-three VoIP authorisations have been awarded, along with licences for international connectivity. However, only few of the operators have yet become active in the market.

To supplement the fixed network, two FWA licences in the 450 MHz band were awarded in June 2009: one to the incumbent operator, one to Media Works, a major alternative ISP. The two companies are required to begin with the commercial service provision, including voice telephony services, within six months from the licence award. In November 2009 RATEL assigned geographic numbers to Media Works.

In January 2010, the Ministry of Telecommunications and Information Society accepted Telenor's €1.05 million bid for Serbia's second fixed telephony licence, ending the long standing monopoly of Telekom Srbija. Telenor was the only qualified bidder in a tender called in November 2009 for a ten-year renewable licence, which sought bidders with at least a €200 million annual turnover and at least one million registered users. Following Ministry's decision, RATEL awarded a licence to the company in February 2010.

¹¹⁶ <http://www.ekoplan.gov.rs/srl/download-776/upload-centar/dokumenti/zakoni-i-nacrti-zakona/zakoni/Zakon%20o%20planiranju%20i%20izgradnji.pdf>

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.¹¹⁷ No new market analysis has been undertaken by RATEL so far.

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 accordance with RATEL regulations on interconnection of public telecommunications networks adopted in May 2008.¹¹⁸ In practice, RIO has applied only to interconnection with mobile networks, in the absence of 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, 2008.¹¹⁹ In February 2010, RATEL approved a further increase of the monthly rental to RSD 388 (€4.17), starting from April 1, 2010.¹²⁰

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.¹²¹ 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. So far, only the regulation on number portability in mobile networks was adopted on December 25, 2009 setting January 1, 2011 as the implementation deadline.¹²²

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 that has not been yet achieved.

¹¹⁷ http://www.ratel.rs/editor_files/File/Regulativa/Odluke/ODLUKA-analiza%20trzista.pdf

¹¹⁸ http://www.ratel.rs/editor_files/File/Regulativa/Pravilnici/Pravilnik_o_interkonekciji.pdf

¹¹⁹

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

¹²⁰

http://www.ratel.rs/editor_files/File/Regulativa/Odluke/UO_2010/UO_12.02/Odluka%20o%20davanju%20saglasnosti%20Telekomu%20da%20izvrsi%20promenu%20cene%20telefonske%20pretplate.pdf

¹²¹ http://www.ratel.rs/editor_files/File/Regulations/Action%20plan%202006-2010_20090130.pdf

¹²² http://www.ratel.rs/editor_files/File/Regulativa/Pravilnici/2010/02_2010_Pravilnik_o_prenosivosti_broja.pdf

7. Universal service and consumer issues

Under the transitional provisions of the Telecommunications Law, Telekom Srbija was required to provide “the initial scope” of universal services until expiry of its exclusivity rights in June 2005.

In July 2009 the ministry, on the proposal of RATEL, defined the initial scope of universal services as comprising 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. RATEL still has to designate the universal provider and establish the universal service fund.

8. European Union

The European Commission noted the progress in the areas of the information society and electronic communications¹²³, notably the adoption of the Law on Electronic Commerce and the new Law on Public Procurement, as well as the entry into force of the Law on Personal Data Protection in January 2009.

The government finally included timelines in the action plan for the telecommunications strategy (2006 – 2010). The basic principles of the strategy for switchover from analogue to digital broadcasting of radio and television programmes were approved in January 2009 and the digital switchover strategy was adopted in July 2009 setting the switchover date for April 4, 2012.

The Commission, however, expressed its concern over the lack of sufficient human resources at the Ministry of Telecommunications and Information Society. Regarding the NRA administrative capacity, the Commission stated that the NRA independence needs to be strengthened and it lacks sufficient expertise to regulate a liberalised market. The nomination procedure for those members of its management board whose mandates have expired has not yet started. It concluded that *“the inadequate institutional and regulatory capacity needs to be addressed and real progress remains contingent on implementation of the legislation.”*

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 draft new law based on the EU 2003 regulatory framework is now at the final stage of adoption.

There is still no competition in the fixed telephony market. As tariffs have not been rebalanced and as other competitive safeguards such as number portability, CS/CPS and local loop unbundling have not been introduced, only few market players have so far been interested in investing in the Serbian market. The licensing of a second fixed operator and the award of two FWA licences are signs that competition and investment in can now increase.

In June 2009 a 10% tax on mobile communications was introduced as a temporary measure for the duration of the global economic crisis to help fill the current budget deficit. This tax could weigh heavily on the mobile telephony sector.

A national broadband strategy was adopted by the government on October 1, 2009. It includes the possibility of public intervention in areas with no adequate broadband supply to reduce the digital divide. One of the goals of the strategy is to increase the penetration of broadband subscribers up to 20% by 2012, lowering the prices and improving the regional availability of broadband services. The strategy insists on complete liberalisation of telecommunication market, including the introduction of local loop unbundling. Technological neutrality will ensure greater selection of broadband technologies for customers, especially for rural areas.

¹²³ Serbia 2009 Progress Report. [SEC\(2009\)1339](#)

H. Kosovo (under UN Security Council Resolution 1244)

1. Legal and institutional framework

a) Introduction

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

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

In February 2008, the Assembly unilaterally declared Kosovo's independence as the Republic of Kosovo. The new constitution for the Republic of Kosovo approved by the Assembly in April came into force on June 15, 2008. However UNSCR 1244 is still in force, which means that ultimate responsibility for the administration of Kosovo still falls on the SRSG, even after the proclamation of independence.

The November 2008 report issued by the United Nations Secretary General (UNSG) led to the full deployment of the EU rule of law mission (EULEX) under the umbrella of UN authority. In March 2009, the UNSG noted the accelerated process of reconfiguring the UN mission in Kosovo (UNMIK) with a view to adapting its functions to the changed circumstances on the ground. The June 2009 report indicated that the remaining functions of UNMIK, reduced to about 10% of its strength compared to 2008, would include monitoring, reporting and facilitating, where necessary and possible, arrangements for Kosovo's international engagement.

Kosovo is participating in the EU Stabilisation and Association Process. In February 2009, the European Parliament adopted a resolution underlining the EU commitment to playing a leading role in ensuring the stability of Kosovo and the Western Balkans as a whole and reiterated its willingness to assist the economic and political development of Kosovo by offering clear prospects for EU membership.

In June 2009, Kosovo became a member of the International Monetary Fund and the World Bank. To date, Kosovo has been recognised by 65 UN Member States, including 22 out of 27 EU Member States.

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.¹²⁴

¹²⁴ http://www.unmikonline.org/regulations/2003/RE2003_16%20.pdf

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)¹²⁵ 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.

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.

The new TRA Board was appointed by the Assembly on September 17, 2009, nine months after the mandate of the previous Board had expired.

TRA is established as a self-financed and non-profit legal entity, with the main sources of funding based on fees collected under the Telecommunications Law, including authorisations, licensing, numbering and spectrum fees. 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 Administration.

The Statistical Office is responsible for information society statistics, but no information society statistics are available yet. Kosovo has not established a body responsible for electronic signature. According to the Telecommunications Sector Policy, TRA will become responsible for domain name policy and will select the agent for the registry when Kosovo will acquire its own ccTLD.

The Law on the Information Society Services, which was adopted in 2002, transposes in several chapters most of the relevant EU legislation on electronic commerce, electronic signatures, distance contracts, electronic invoicing, data protection in general (Directive 95/46/EC) and data protection in electronic communications¹²⁶. Kosovo is in the process of ratifying the Cybercrime Convention. A draft law on prevention and fight of the cyber crime has already passed first reading in the Assembly and will transpose the provisions of the Convention.

2. Regulatory independence

a) Privatisation and operational independence

The incumbent operator, PTK, is 100% state-owned and until recently, under the control of the Kosovo Trust Agency, within the UNMIK administration. Now the state ownership and control functions are

¹²⁵ <http://www.mtpt.org/>

¹²⁶ 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.

exercised by the Ministry of Transport and Communications which is also in charge of telecommunication sector policies.

PTK privatisation was addressed in the Telecommunications Sector Policy, adopted by the government in June 2007. Recently the government announced plans to privatise PTK during 2010.

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
- 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:¹²⁷

- 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”.

Following the amendment, the former FMO has been now incorporated into TRA.

3. Market access and authorisations

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

Although the first authorisations to three national ISPs were issued in May 2005, a comprehensive authorisation framework for telecommunications operators was adopted only in September 2005. This framework represents a system of class licences with specific conditions and licence fees set depending on the specific service. The one-off licence fees are ranging from €87,500 for national public fixed telephony services, €50,000 for international telecommunications facilities and €35,000 for international telecommunications services to €5,000 for Internet services.

PTK maintained its exclusive right over access to international gateway facilities until December 31, 2007.

4. Market structure

PTK maintains its dominance in the provision of public fixed telephony services. However, two alternative network operators have entered the market. On September 8, 2006 IPKO, controlled by Telekom Slovenije, was granted the second licence for the provision of national public fixed telephone networks and services. IPKO launched commercial services in 2008. In January 2009, the third licence was issued to Konet that has not yet become operational.

¹²⁷ http://inclave.org/m/file.php?file=LAW_AMENDING_THE_LAW_ADOPTED_BY_THE_ASSEMBLY_OF_KOSOVO_2008_03-L085_en.pdf

Much more competitive is the Internet services sector, where the incumbent ISP's market share by number of connections is low (around 21% by number of connections). 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.

In April 2009, a PTK consortium was awarded the fourth mobile licence in neighbouring Albania.

5. Significant market power

Under the Telecommunications Law, the NRA has discretion to define relevant markets by the application of competition law principles. Undertakings with SMP are designated on the basis of a simple 25% market share threshold, sometimes combined with the assessment of other criteria.

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

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

6. Competitive safeguards

Kosovo is still lagging behind with implementation of the key competitive safeguards foreseen under the EU 1998 regulatory framework.

- The first RIO of the fixed incumbent operator, PTK, was approved by TRA on January 12, 2007.
- TRA mediated in an interconnection dispute between Vala and IPKO, and set out mobile termination rates, using a benchmark.

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

7. Universal service and consumer issues

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

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

- access to publicly available telephone services enabling users to make and receive local, national and international telephone calls, and fax communications, plus functional Internet access, at reasonable prices;
- access to information in the single directory;
- access to public pay telephones from which it is possible to make emergency calls without having to use any means of payment;

- measures for disabled end users that enable equivalent access to publicly available telephone services.

According to the policy, one possible alternative would be the inclusion of universal service obligations in the licences of telecommunications operators and service providers.

No proposal has been yet presented by the authorities. In the absence of an explicit universal service framework, several elements of the universal service have been included as obligations within the scope of the licence conditions of the incumbent operator, PTK, and the new entrant alternative operator, IPKO.

8. European Union

The European Commission reported some progress in the area of electronic communications.¹²⁸ The Commission, however, expressed concerns over the delayed implementation of the sector policy adopted in 2007 and stressed the need for the regulator to move swiftly with the adoption of implementing legislation crucial for the proper functioning of the market and ensure its enforcement.

Capacity at both the Ministry of Transport and Communications and TRA is too limited for the effective performance of their tasks in this area. The operational, political and financial independence of the TRA needs to be strengthened.

There has been limited progress in the area of information society services. The 2005 Law on Information Society Services transposes most provisions of the Directives on e-Commerce, e-Signatures, and Data Protection and e-Privacy, but implementation has been limited. A law on cybercrime has not yet been adopted. Overall, information society services need to be further developed. The relevant strategies and action plans are yet to be fully implemented.

9. Outlook

Following the integration of FMO and appointment of the new TRA board in September 2009, the regulator has now resumed its responsibility for market regulation on a more independent basis. The TRA has begun to implement relevant market regulations on market access. A large number of frequency authorisations have been issued during 2009, together with a third fixed licence and new licences for national and international services.

Although TRA has started work on drafting the required regulations for improving competitive safeguards, the implementation timescales are not yet clear and the deadlines set out in the sector policy have not been met. The administrative capacity of the Ministry of Transport and Communications needs to be strengthened and a new policy document for the sector is required.

Fixed market penetration remains the lowest in the region, and mobile telephony market penetration is still relatively low at 70%. The mobile market is expected to accelerate with new virtual mobile operators becoming active. The emergence of a third licensed fixed operator is expected to accelerate the broadband market.

¹²⁸ Kosovo 2009 Progress Report. [SEC\(2009\)1340](#).