



FINAL STUDY REPORT

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

March 2011

Table of Contents

I.	INTRODUCTION	6
II.	MARKET DEVELOPMENTS IN 2005–2010	7
	A. Economic growth and electronic communications sector	7
	B. Fixed voice telephony	8
	C. Mobile voice services	15
	D. Internet and broadband	18
	E. Leased lines	22
	F. Control of major telecom operators by foreign investors.....	24
III.	COUNTRY PROGRESS	28
	A. Croatia	29
	B. The former Yugoslav Republic of Macedonia (FYROM)	30
	C. Turkey	31
	D. Albania.....	33
	E. Bosnia & Herzegovina	34
	F. Montenegro	36
	G. Serbia	37
	H. Kosovo (under UN Security Council Resolution 1244)	39
IV.	REGULATORY RISK ASSESSMENT	41
	A. Assessment areas	41
	B. Methodology	43
	C. Assessment results	43
	D. Country risk assessment	44
V.	CONCLUSIONS AND RECOMMENDATIONS	53
	A. Study conclusions.....	53
	B. Digital Agenda challenges	54
VI.	ANNEX I – REGULATORY RISK ASSESSMENT SCORECARD	56
VII.	ANNEX II – LIST OF INDUSTRY CONTACTS (CONFIDENTIAL)	59
	A. Albania.....	59
	B. Bosnia & Herzegovina	59
	C. Croatia	59
	D. Montenegro	60
	E. Serbia	60
	F. Kosovo.....	61
	G. The former Yugoslav Republic of Macedonia	62
	H. Turkey	62

List of Tables

Table 1 – Liberalisation of public fixed voice telephony networks and services	9
Table 2 – Overview of spectrum licences issued for mobile services	16
Table 3 – Control of fixed and mobile operators by foreign investors (>50% stake).....	24
Table 4 – Overview on general alignment with EU legislation and practice.....	28
Table 5 – Summary of regulatory risk assessment	43
Table 6 – Regulatory risk assessment of Croatia.....	44
Table 7 – Regulatory risk assessment of FYROM	45
Table 8 – Regulatory risk assessment of Turkey	46
Table 9 – Regulatory risk assessment of Albania	47
Table 10 – Regulatory risk assessment of Bosnia & Herzegovina	48
Table 11 – Regulatory risk assessment of Montenegro	49
Table 12 – Regulatory risk assessment of Serbia	50
Table 13 – Regulatory risk assessment of Kosovo	52

List of Figures

Figure 1 – GDP growth in 2006–2008 and IMF forecasts for 2009–2011, in percent.....	7
Figure 2 – Electronic communications revenue growth, in percent.....	8
Figure 3 – Electronic communications market in 2009, in million euro	8
Figure 4 – Fixed lines per 100 population	9
Figure 5 – Public fixed telephone network operators	10
Figure 6 – Public fixed voice telephony service providers	10
Figure 7 – Incumbent operators’ market share in fixed telephony, 2007–2010	10
Figure 8 – Subscribers using alternative providers as percentage of total number of fixed lines	11
Figure 9 – Residential line rentals by incumbent, incl. VAT, 2006–2010	11
Figure 10 – Residential charges for a 3-minute local call by incumbent, incl. VAT, 2006–2010	12
Figure 11 – Residential charges for a 3-minute long distance call by incumbent, incl. VAT, 2006-2010 ...	12
Figure 12 – Residential charges for a 3-minute fixed to mobile call by incumbent, incl. VAT, 2006-2010 .	13
Figure 13 – Residential charges for a 10-minute call to UK by incumbent, incl. VAT, 2006-2010	13
Figure 14 – Local call termination charges on the incumbent’s fixed network, peak time	14
Figure 15 – Single transit call termination charges on the incumbent’s fixed network, peak time	14
Figure 16 – Double transit call termination charges on the incumbent’s fixed network, peak time	15
Figure 17– Mobile subscriptions per 100 population.....	15
Figure 18 – Mobile subscribers – prepaid and postpaid	15
Figure 19 – Mobile market concentration levels, HHI.....	16
Figure 20 – Medium usage basket in euro per month, including VAT	17
Figure 21 – Fixed to mobile termination rates, peak time	18
Figure 22 – Fixed broadband penetration	19
Figure 23 – Mobile broadband penetration: dedicated data cards/modems/keys, July 2010	19
Figure 24 – Fixed retail broadband connections by incumbent and alternative operators, January 2010..	19
Figure 25 – Fixed retail broadband connections by technology	20
Figure 26 – Alternative operators’ xDSL lines by type of access	20
Figure 27 – Broadband 1 Mbps monthly charges in euro, including VAT, July 2010	21
Figure 28 – Broadband 2 Mbps monthly charges in euro, including VAT, July 2010	21
Figure 29 – Connection prices for fully unbundled loop and shared access in euro, July 2010	22
Figure 30 – Monthly rental prices for fully unbundled loop and shared access in euro, July 2010.....	22
Figure 31 – Annual retail prices for 2 km 2 Mbps leased lines, in euro without VAT, July 2010	23
Figure 32 – Annual retail prices for 2 km 34 Mbps leased lines, in euro without VAT, July 2010	23
Figure 33 – Annual prices for half circuits 2 Mbps to near country, in euro without VAT, July 2010	23
Figure 34 – Annual prices for half circuits 2 Mbps to the UK, in euro without VAT, July 2010	23
Figure 35 – Deutsche Telekom and OTE group presence in Enlargement countries, 2010	25
Figure 36 – Telekom Slovenije group presence in Enlargement countries, 2010.....	25
Figure 37 – Telekom Austria group presence in Enlargement countries, 2010	26
Figure 38 – Telenor and Vodafone presence in Enlargement countries, 2010.....	26
Figure 39 – Telekom Srbija presence in Enlargement countries, 2010	27

List of Participating Entities

Country	Code	Comments
Croatia	HR	–
The former Yugoslav Republic of Macedonia (FYROM)	MK	The constitutional name is the Republic of Macedonia, though it is not recognised under this name by some countries. The EU refers to it by the provisional reference under which it was admitted to the United Nations: "the Former Yugoslav Republic of Macedonia". This does not prejudice the outcome of the negotiations on the name of the country that are underway. The country code "MK" is used by ISO and some other organisations.
Turkey	TR	–
Albania	AL	–
Bosnia & Herzegovina	BA	Bosnia & Herzegovina (BiH) comprises two parts: <ul style="list-style-type: none"> • The Federation of Bosnia & Herzegovina • Republika Srpska A separate federal district of Brčko belongs to both. Bosnia & Herzegovina is presented as a single geographic unit because its constituent parts have a common legislative and institutional framework for electronic communications and information society services, established at the entity level. The report treats separately the three incumbent operators that, while now operating nationally, were initially established in different parts of the entity: <ul style="list-style-type: none"> • BH Telecom d.d Sarajevo (BA–bh) based in Sarajevo, the Federation of Bosnia & Herzegovina • Hrvatske Telekomunikacije d.o.o. Mostar (BA–ht) based in Mostar, the Federation of Bosnia & Herzegovina • Telekom Srpske a.d. Banja Luka (BA–ts) based in Banja Luka, Republika Srpska
Montenegro	ME	–
Serbia	RS	–
Kosovo (under UNSCR 1244)	XK	Kosovo is a territory under interim international administration. Under United Nations Security Council Resolution 1244, the administration of Kosovo has been carried out by the UN without the involvement of the government of Serbia. ¹ On February 17, 2008 the Kosovo Assembly, elected in December 2007, adopted a resolution declaring Kosovo to be independent. 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. ² 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. ³

¹ <http://www.un.org/Docs/scres/1999/sc99.htm>

² http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressdata/en/gena/98818.pdf

³ 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

I. INTRODUCTION

This report concludes a three-year project of monitoring the eight South East European countries that are seen as potential members of the European Union, either in the short or medium term: Croatia, the former Yugoslav Republic of Macedonia (FYROM), Turkey, Montenegro, Albania, Bosnia & Herzegovina, Serbia and Kosovo⁴.

The primary objective of the project has been to assist the European Commission and the authorities in the participating countries in monitoring the progress made towards compliance with the EU regulatory framework for electronic communications and information society services. This report has been preceded by a series of four interim reports published every nine months in the period from 2008 to 2010. Conclusions presented in the report are based on this three-year research work and a similar monitoring project that was carried out by Cullen International in the period from 2005 to 2007.

Effective and predictable regulation plays an important role in shaping the environment and the incentives for investment. This is evidenced by the fact that all regulated market players and potential investors consider regulatory risk as a key factor in determining their investment strategies. The higher the perceived regulatory risk, the less likely is the enthusiasm for investment. At the same time, the opposite also holds true. As it has been demonstrated by the EU experience in stimulating broadband growth, effective regulation can be a force for reducing overall market uncertainties and enhancing investment opportunities in the sector.⁵

This final report analyses the progress achieved by the monitored countries so far and highlights some key regulatory and policy issues that ultimately determine investment in the sector and will be assessed by any potential new entrant to the markets concerned.

Section II of this final report provides a summary of market and regulatory developments in the monitored countries with particular focus on the period from 2005 to 2010. It analyses growth and competition status in the mobile and fixed communications and broadband sectors and also presents the most important regional players. Section III consists of eight country chapters that address in more detail the progress made by the monitored countries in aligning their institutional and legislative frameworks with the EU rules and implementing the key competitive safeguards. Section IV presents a regulatory risk assessment of the eight countries from the new entrant's perspective.

Finally, Section V contains conclusions and recommendations that could be drawn from this monitoring project. As the monitored countries have a perspective of joining the EU, stable and predictable regulation can be best achieved by aligning national legislation with the *EU acquis* and national policies with the Digital Agenda for Europe, one of the flagship initiatives of the EU 2020 strategy which outlines policies and actions to maximise the benefit of the digital economy and high speed broadband for all.⁶ Therefore, the concluding section of this report also addresses some of the key policy and regulatory aspects that are crucial for bringing the enlargement countries up to speed with the process of achieving the ambitious targets set by the Digital Agenda.

⁴ Under the United Nations Security Council Resolution 1244 of June 10, 1999 (UNSCR 1244), hereafter Kosovo

⁵ ERG (05) 23 Broadband market competition report, May 26, 2005, <http://www.erg.eu/template20.jsp?categoryId=260346&contentId=545049>

⁶ See http://ec.europa.eu/information_society/digital-agenda/index_en.htm and the Communication COM(2010) 245.

II. MARKET DEVELOPMENTS IN 2005–2010

A. Economic growth and electronic communications sector

In most of the monitored countries, GDP growth in constant prices in the period from 2000 to 2007 was considerably higher than in the EU. Most of them have achieved 5–7% annual GDP growth during that period which was more than double of the average 2.2% growth in the EU.

Nevertheless, the enlargement economies could not avoid the consequences of the global financial and economic crisis of 2008–2009, although they were late in entering the recession. The slowdown in economic growth in the monitored countries only began to be really noticeable in the fourth quarter of 2008. Since then forecasts for growth in 2009, initially suggesting that the region would avoid the most serious consequences of the crisis, have been revised downwards.

Revised forecasts by the IMF released in October 2010 suggest a shrinking in GDP for the most of the region in 2009 and a gradual recovery during 2010 and 2011.⁷ The exceptions are Albania and Kosovo, whose economies are estimated to grow in 2009 by 3.3% and 4.0%, respectively. Croatia, Turkey and Montenegro are reported to have been worst hit in 2009. The Turkish economy, however, is also forecast to be the fastest to recover reaching 7.8% growth in GDP already in 2010.

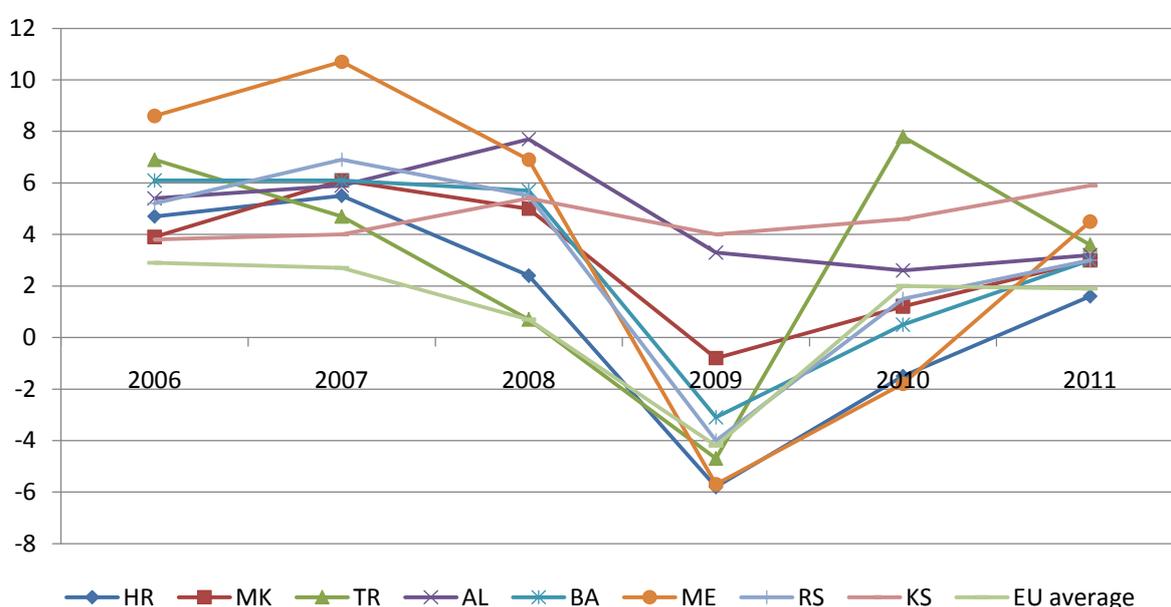


Figure 1 – GDP growth in 2006–2008 and IMF forecasts for 2009–2011, in percent⁸

The economic crisis was accompanied by depreciation of national currencies resulting in the apparent decline in the value of specific electronic communications markets expressed in euro. Particularly strong depreciation of national currencies against euro in 2009 was observed in Serbia (RSD by 15%), Turkey (TRY by 13%) and Albania (ALL by 7.5%).

After an uninterrupted growth that had been ongoing since 2005, the electronic communications sector fell by 6.75% down to €15.3 billion in 2009 from €16.4 billion in 2008. For comparison, the electronic communications sector revenue in the eight countries had grown by an impressive 18% in 2007 and by 4% in 2008.

⁷ <http://www.imf.org/external/pubs/ft/weo/2010/02/pdf/exesum.pdf>

⁸ <http://www.imf.org/external/pubs/ft/weo/2010/02/pdf/text.pdf>

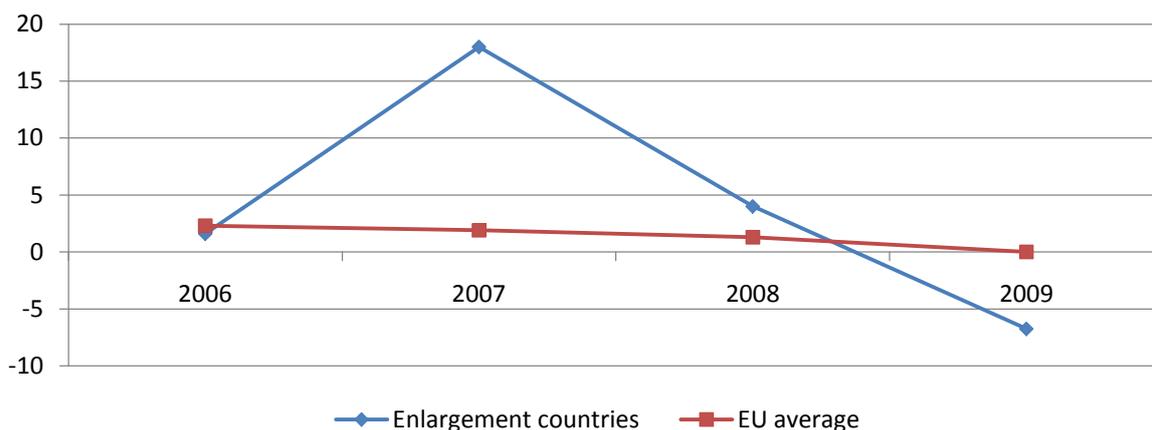


Figure 2 – Electronic communications revenue growth, in percent

Particularly strong decline was observed in the two largest segments of mobile and fixed telephony services, each shrinking in value by 9.4% in 2009. At the same time, internet access and broadband services are playing an increasingly significant part in the electronic communications sector. In 2009, this segment had grown by almost 19%. Even stronger growth by over 25% was achieved by a still relatively small segment of cable TV services.

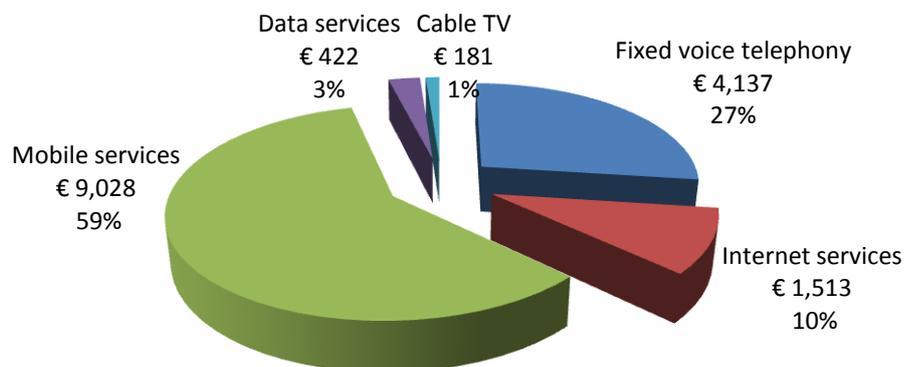


Figure 3 – Electronic communications market in 2009, in million euro

B. Fixed voice telephony

1. Penetration

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

As of January 1, 2010 the average fixed telephony penetration rate for the eight countries was 24.5%. However, there are considerable variations in the levels of penetration of the fixed network, with Croatia and Serbia at levels comparable to the EU-27 average of 40% and Albania and Kosovo at very low levels (see Figure 4). Serbia and Albania have seen a continuing increase in penetration since 2005, while FYROM, Turkey, Montenegro and Kosovo have demonstrated a reverse trend.

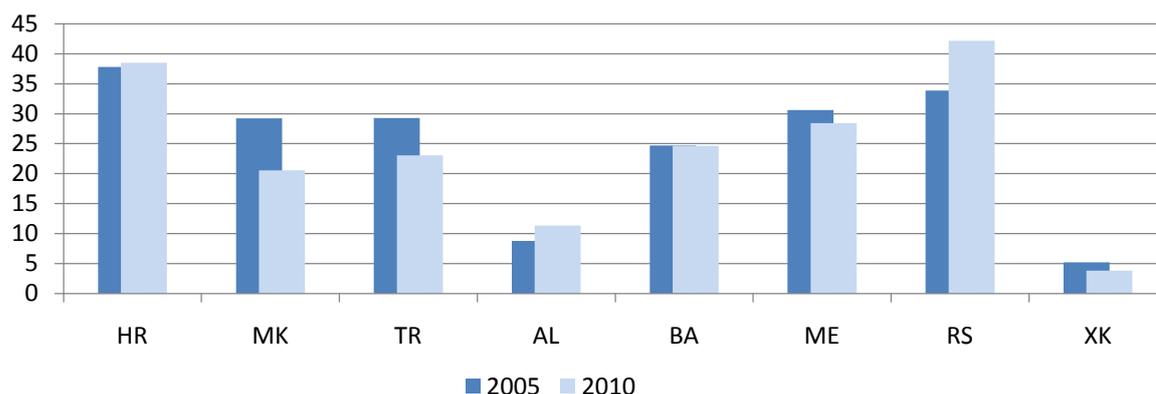


Figure 4 – Fixed lines per 100 population

2. Competition

The development of competition in public fixed voice telephony networks and services in each country has been determined by the liberalisation process. The timing of liberalising fixed voice telephony has varied between the countries. In some countries, liberalisation was introduced gradually where local, national long distance and international voice telephony networks and services were opened for competition at a different point in time. So far, full liberalisation of public fixed voice telephony has been completed in seven of the eight monitored countries. Serbia remains the only country where the provision of public fixed voice telephony networks and services will not be open to new competitors until the end of 2011. Only two alternative operators have been authorised in 2009 and 2010, respectively, to offer fixed voice telephony services in competition with the incumbent operator.

The competitive situation is also determined by the existing authorisation frameworks. So far, five of the monitored countries have implemented a general authorisation regime. FYROM introduced a general authorisation regime for all activities that do not require access to limited resources with adoption of the Law on Electronic Communications in 2005. Albania, Croatia and Montenegro moved to general authorisation regime in 2008 following the adoption of new laws based on the EU regulatory framework. In Turkey, general authorisation regime was introduced in May 2009. In Serbia, under the new Electronic Communications Law adopted in June 2010, general authorisation regime for public fixed voice telephony services provided over public fixed networks is foreseen from January 2012.

Table 1 below provides an overview of the liberalisation process and the adoption of general authorisation regime for public fixed voice telephony networks and services.

Country	Liberalisation of public fixed voice telephony networks and services			General authorisation
	Local	National	International	
Croatia	2003	2003	2003	2008
FYROM	2005	2005	2005	2005
Turkey	2009	2004	2004	2009
Albania	Rural areas: 1998 Urban areas: 2007	2005	2005	2008
Bosnia & Herzegovina	2002	2002	2006	undecided
Montenegro	2004	2004	2004	2008
Serbia	2012	2012	2012	2012
Kosovo (UNSCR 1244)	2005	2005	2008	undecided

Table 1– Liberalisation of public fixed voice telephony networks and services

Two figures below show the number of commercially active providers of public fixed voice telephony networks and services, respectively, in 2005 and 2010.

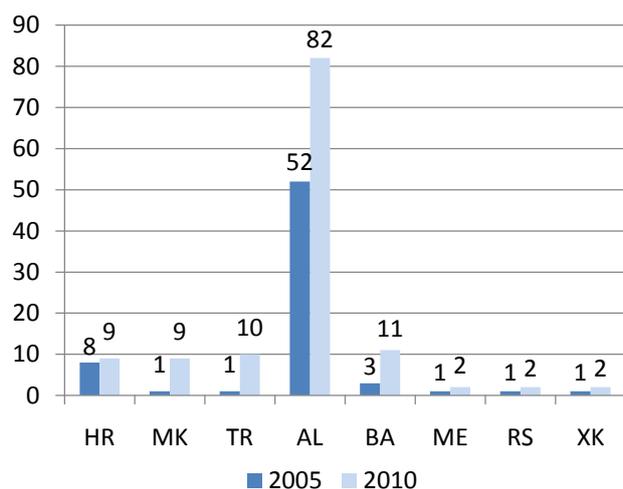


Figure 5 – Public fixed telephone network operators

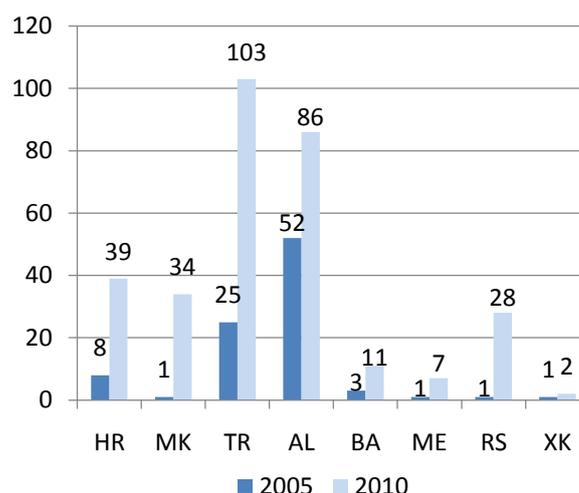


Figure 6 – Public fixed voice telephony service providers

Note: For Serbia, data on service providers in 2010 include 26 VoIP providers without access to subscriber numbers

Only in Croatia and FYROM, alternative operators have achieved by 1Q 2010 market shares that are close to or above 20%, both by revenue and by minutes of traffic. In Croatia, alternative operators' market share was 20% by revenue and 32% by minutes of traffic. In FYROM, there was a particularly significant reduction in both traffic- and revenue-based market shares of the incumbent operator during 2007–2010. This is largely explained by the take-up of alternative infrastructures, such as cable networks, and successful implementation of wholesale line rental (WLR). A reverse trend was observed in Turkey, where the incumbent operator's revenue-based market share had increased.

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

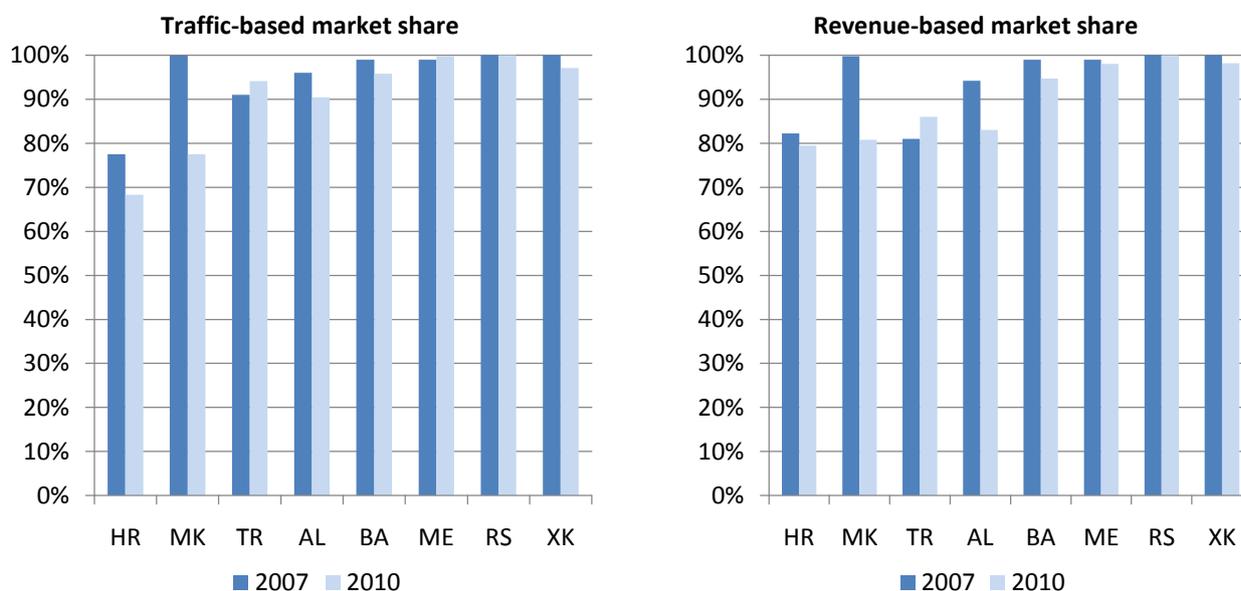


Figure 7 – Incumbent operators' market share in fixed telephony, 2007–2010

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

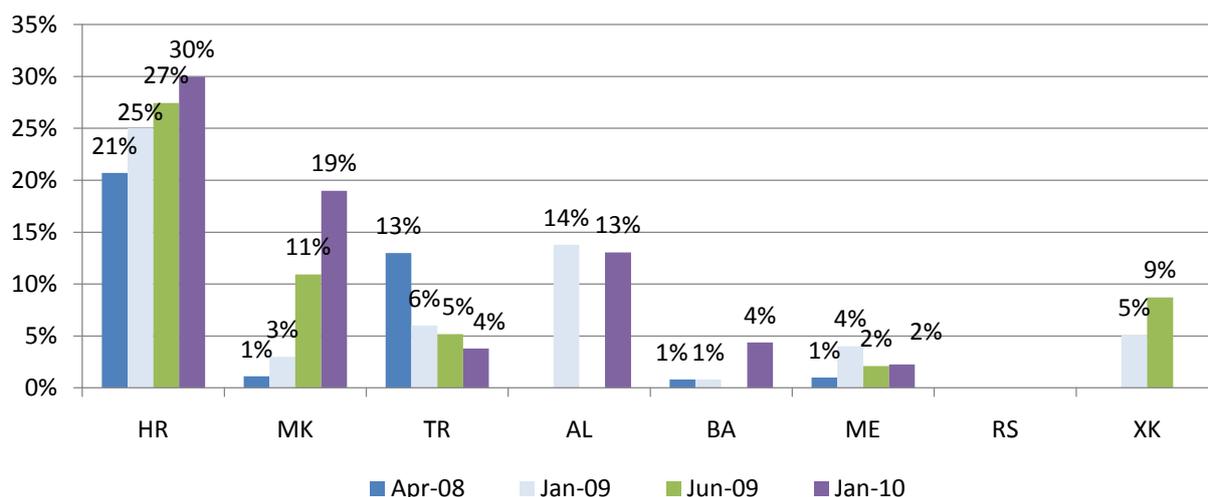


Figure 8 – Subscribers using alternative providers as percentage of total number of fixed lines

3. Retail tariffs

Rebalancing of the incumbent operator’s retail tariffs is ongoing in all eight countries. Four countries, Croatia, Montenegro, FYROM and Turkey appear to have made significant progress in terms of implementing tariff rebalancing. Albania has approved a two-year rebalancing scheme for the fixed incumbent, which commenced in September 2008 and continued during 2009 and 2010 with significant increases in monthly line rentals and local call charges in parallel with reductions in fixed to mobile and international call tariffs. In Bosnia & Herzegovina the rebalancing process is carried out in several phases with the second phase scheduled during 2009–2011. Serbia is at a very early stage of tariff rebalancing. In October 2008 the NRA approved an increase by up to 100% in monthly rentals and impulse charges, as well as uniform call prices for residential and business customers. In February 2010, a further increase of the monthly rental was approved, starting from April 1, 2010.

The graph below shows that only Croatia and Turkey have set monthly line rentals at the level close to the EU-27 average of €15.00 per month.⁹ Other countries, including FYROM, Turkey, Bosnia & Herzegovina, Montenegro and Kosovo, have made some progress to increase monthly rentals over the last five years. The lowest monthly line rentals, around €4.00, are observed in Albania and Serbia despite the tariff increases that took place since 2008.

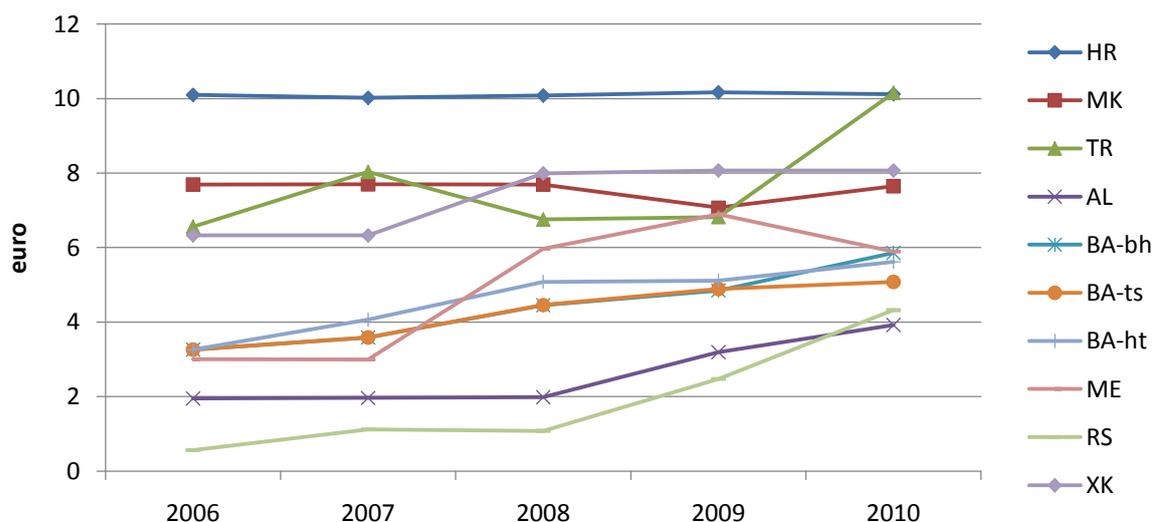


Figure 9 – Residential line rentals by incumbent, incl. VAT, 2006–2010

⁹ EU average values are stated as of October 2009, according to the EC 15th Implementation report

The EU average of 14 eurocents for a 3-minute local call has only been approached by Croatia and Turkey. The other countries appear to charge for local calls significantly below cost. In most countries, local call tariffs have been relatively stable during 2006–2010. The exceptions are Montenegro where the price of local on-net calls increased by 120% between 2007 and 2008, Bosnia & Herzegovina with a 50% increase for Telekom Srpske in 2010, and Albania with 113% increase in 2009 and a further 39% increase in 2010. In Serbia, local call tariffs remain the lowest in the region.

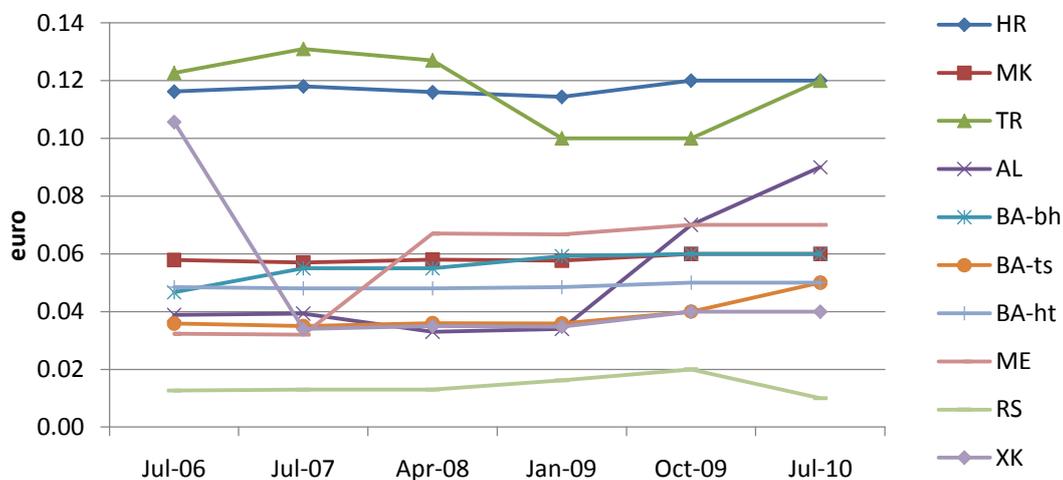


Figure 10 – Residential charges for a 3-minute local call by incumbent, incl. VAT, 2006–2010

Meanwhile, the cost of a 3-minute national long distance call has decreased more significantly. Particularly strong tariff decreases were observed in Albania in 2009 and in Turkey and Kosovo in 2007.

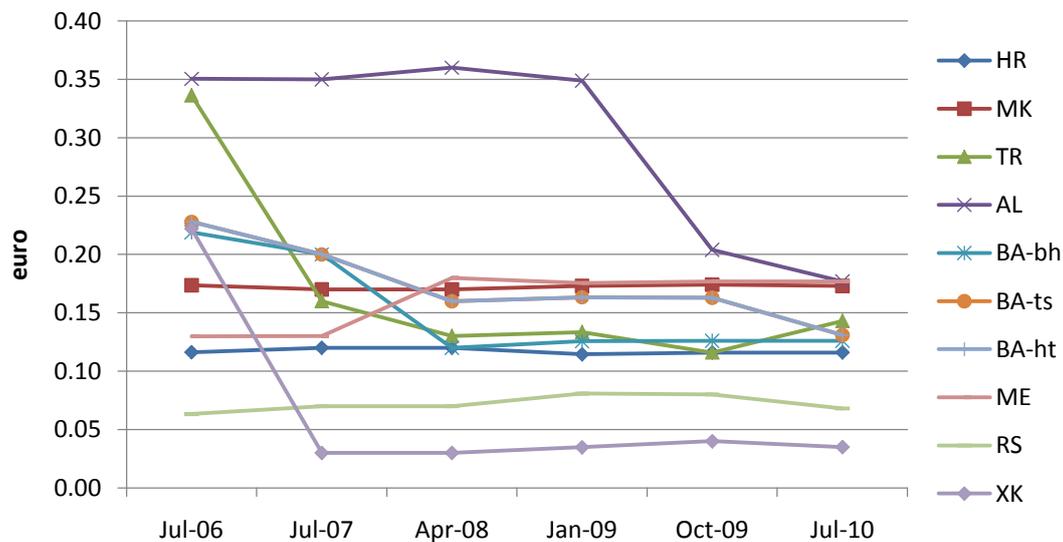


Figure 11 – Residential charges for a 3-minute long distance call by incumbent, incl. VAT, 2006-2010

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

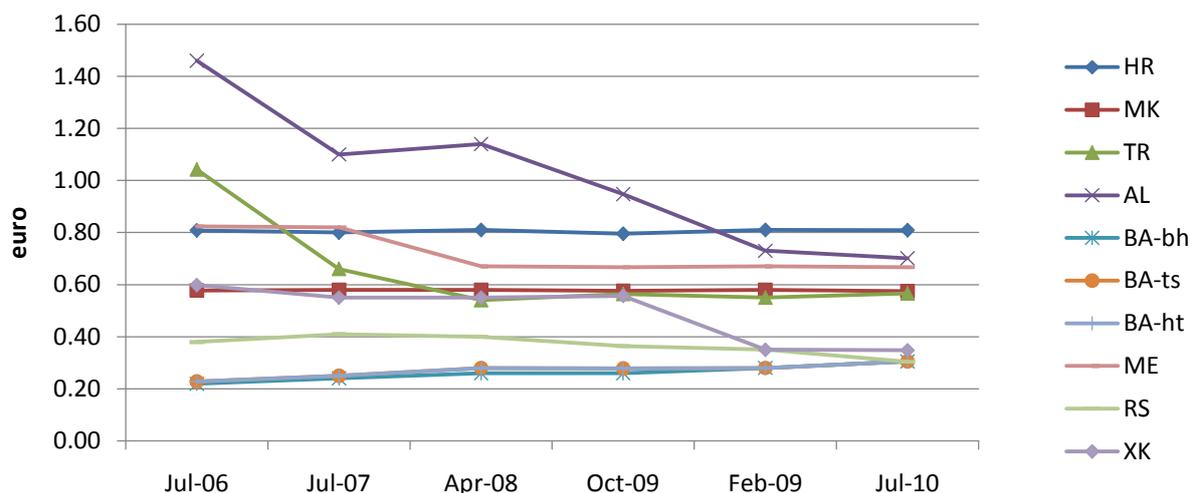


Figure 12 – Residential charges for a 3-minute fixed to mobile call by incumbent, incl. VAT, 2006-2010

For international calls, all incumbents appear to be responding to more competitive conditions. Tariffs have shown a reducing trend since 2006, as illustrated by the call charges to the UK. The most significant decreases were observed in Bosnia & Herzegovina and Montenegro.

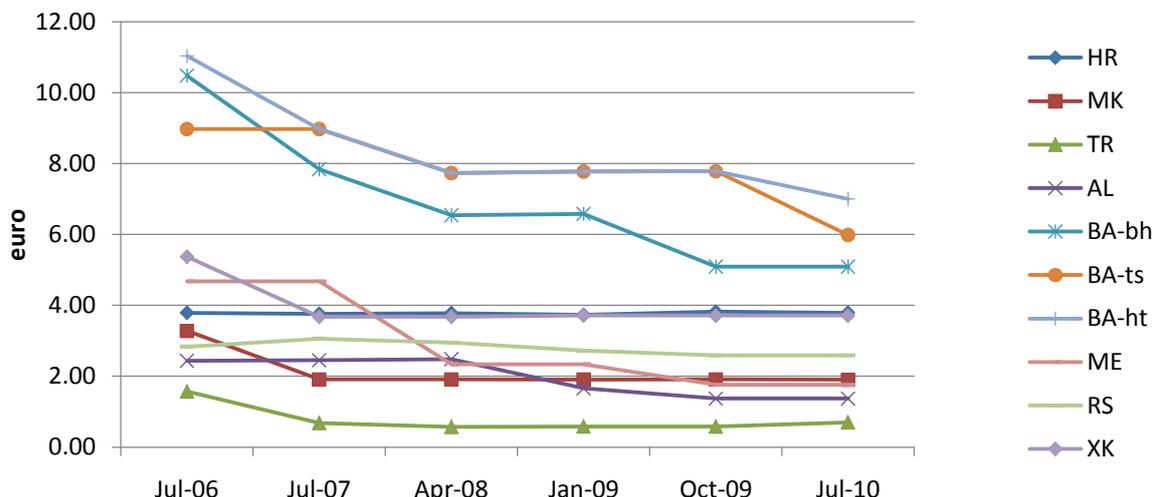


Figure 13 – Residential charges for a 10-minute call to UK by incumbent, incl. VAT, 2006-2010

4. Interconnection tariffs

Fixed call termination charges in most of the monitored countries have remained relatively stable between 2005 and 2010. The major reductions, however, took place in FYROM, Bosnia & Herzegovina, Montenegro, and more recently in Serbia. Certain fluctuations in other countries can be explained to some extent by the exchange rate changes. The highest level of fixed call termination charges have been reported in Montenegro, and Kosovo.

Only regulators in FYROM, Turkey and Albania have made progress in implementing LRIC-based cost accounting methodologies for setting regulated interconnection tariffs of the fixed incumbent network operators. The NRAs in other monitored countries have not yet implemented cost-based pricing of regulated wholesale services but opted for the use of some form of benchmarking-based price controls.

In three countries, local call termination charges on the incumbent's fixed network at the local level are set close to the EU average level of 0.52 eurocents per minute: Croatia, FYROM and Turkey. In Serbia, local tariffs are about 2.5 times lower than the EU average, while in Montenegro and Kosovo, they are four and six times higher, respectively. In Albania, following the implementation of new BU-LRAIC cost model, from September 2010 Albtelcom's fixed termination rates have nearly doubled at all levels of interconnection.

In most of the monitored countries, the fixed incumbent operators apply the same termination charges regardless of whether the call originates on national fixed or mobile networks. The exceptions are Turkey,

Serbia and Kosovo where the termination of calls originating on mobile networks is higher than fixed to fixed call termination.

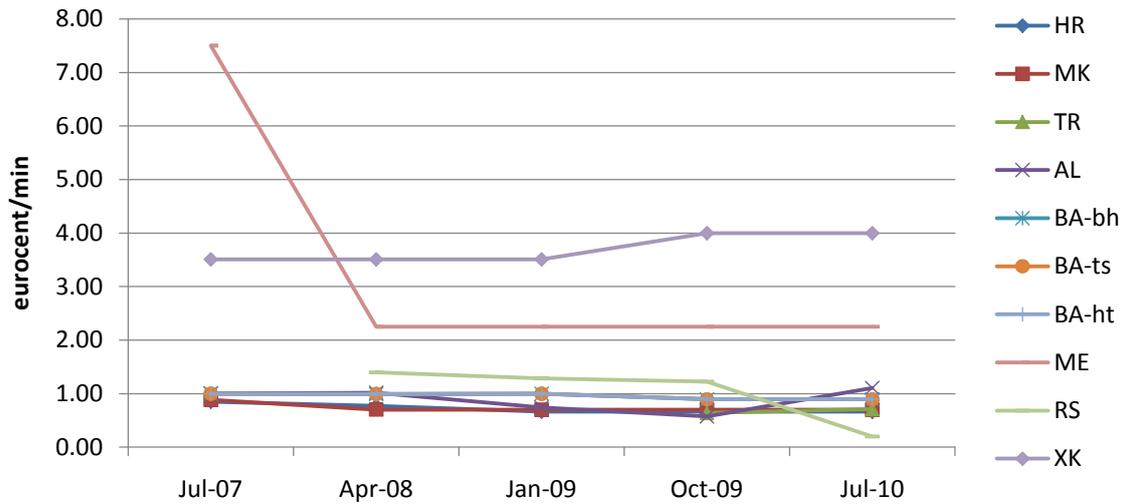


Figure 14 – Local call termination charges on the incumbent's fixed network, peak time

At the single transit level, call termination charges on the incumbent's fixed network are close to the EU average of 0.79 eurocents per minute in Croatia, Turkey and, from 2010, also in Serbia. In Albania, the charges decreased by 23.5% during 2009 but increased by 104% in 2010. Call termination charges are still higher than the EU average in Montenegro and Bosnia & Herzegovina. In Kosovo, call termination is only offered at the local level.

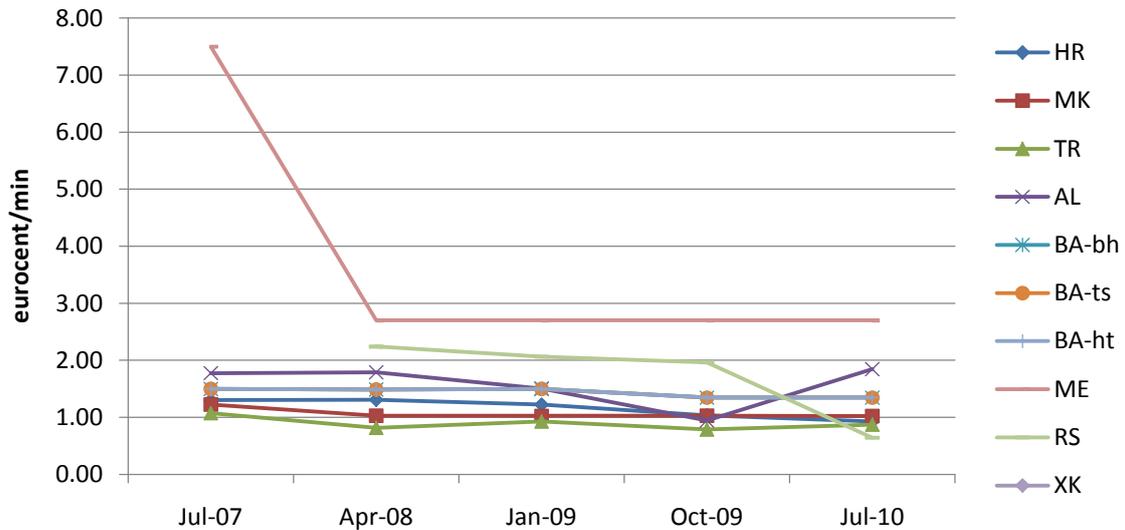


Figure 15 – Single transit call termination charges on the incumbent's fixed network, peak time

At the double transit level, rates remain considerably higher than EU-27 average of 1.09 eurocents per minute in Albania, Bosnia & Herzegovina and in Croatia. Incumbents' double transit termination charges decreased in 2010 in Serbia by 70%. A sharp increase by 106% was observed in Albania.

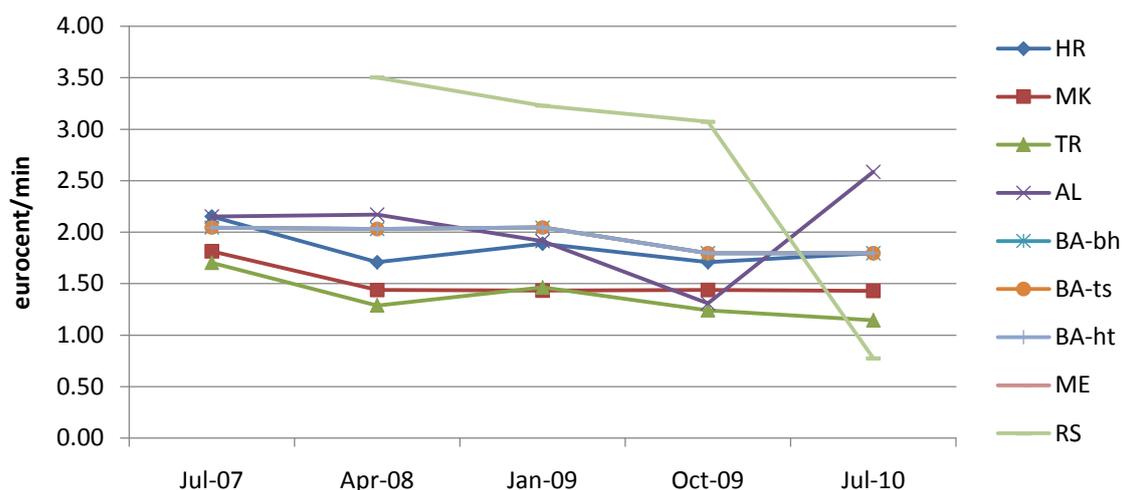


Figure 16 – Double transit call termination charges on the incumbent’s fixed network, peak time

C. Mobile voice services

1. Penetration

In January 2010, there were 89 million subscribers of mobile services corresponding to the average mobile telephony penetration rate of 94.7% for the eight monitored countries. Mobile penetration in Croatia, Montenegro and Serbia now exceeds the EU-27 average level. The highest growth during 2005–2010 was observed in Kosovo and Albania, where mobile penetration has increased four and three times, respectively.

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

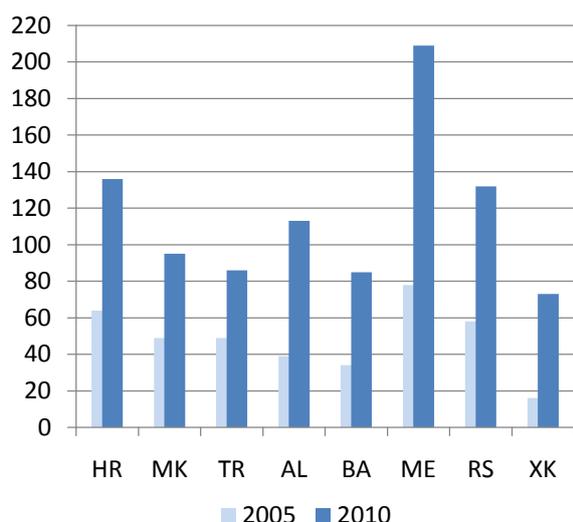


Figure 17– Mobile subscriptions per 100 population

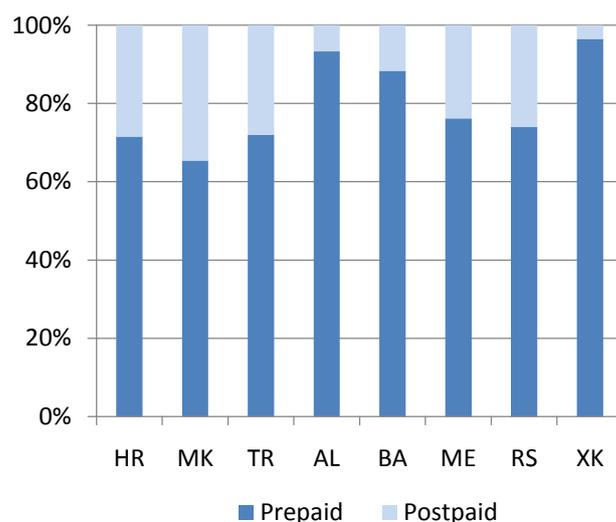


Figure 18 – Mobile subscribers – prepaid and postpaid

2. Competition

Mobile telephony is *de facto* the only sector where competition has emerged on a significant scale. There are now at least three active network operators licensed to serve each market, with the exception of Kosovo with two mobile networks. In April 2009 Albania granted the fourth GSM licence, becoming the first country in the region with four mobile operators. In Kosovo, however, in addition to the two mobile network operators, there are two active MVNOs.

Nevertheless, most of the national mobile markets remain highly concentrated with two 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.

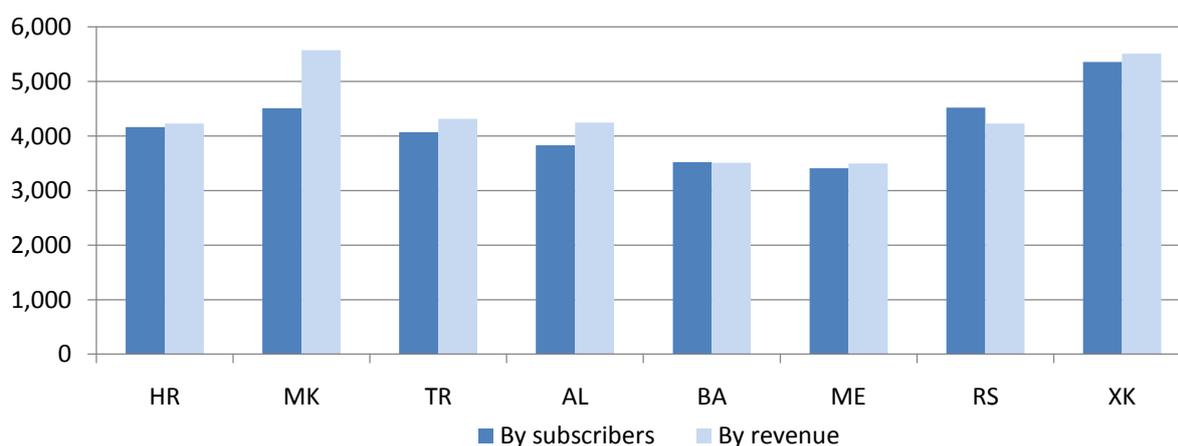


Figure 19 – Mobile market concentration levels, HHI

In most of the monitored countries mobile operators have been issued 2G spectrum licences in both the 900 MHz and the 1800 MHz bands. All countries, except Kosovo, have issued 3G/UMTS spectrum licences in the 2100 MHz band. In Albania, a single 3G licence was issued to Vodafone in December 2010.

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

Table 2 – Overview of spectrum licences issued for mobile services

The distribution of spectrum assignments in some countries demonstrates asymmetries between established operators and new entrants. Late entrants in Croatia, Serbia and Turkey were assigned less spectrum in the 900 MHz band, but more in the 1800 MHz in comparison with the established operators. In practice, these asymmetries mean that new entrant mobile operators with spectrum assignments in the higher 1800 MHz band are often facing higher network deployment cost.

Three of the monitored countries, Croatia, FYROM and Bosnia & Herzegovina, have so far allowed 3G services in the 900 MHz and 1800 MHz bands.

3. Retail tariffs

Mobile network operators provide a range of tariff options that are rather complicated and difficult to compare. In order to make tariff comparisons among the monitored countries and also with the EU

average values, the mobile tariffs observed in 2009 and 2010 have been reported as the 2006 version of OECD tariff “baskets”, which is the same methodology as used in the EC implementation reports.¹⁰ However, as the monitoring reports issued before 2009 used the 2002 baskets, the direct comparisons with mobile tariffs in the monitored countries in 2005–2008 cannot be made.

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

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

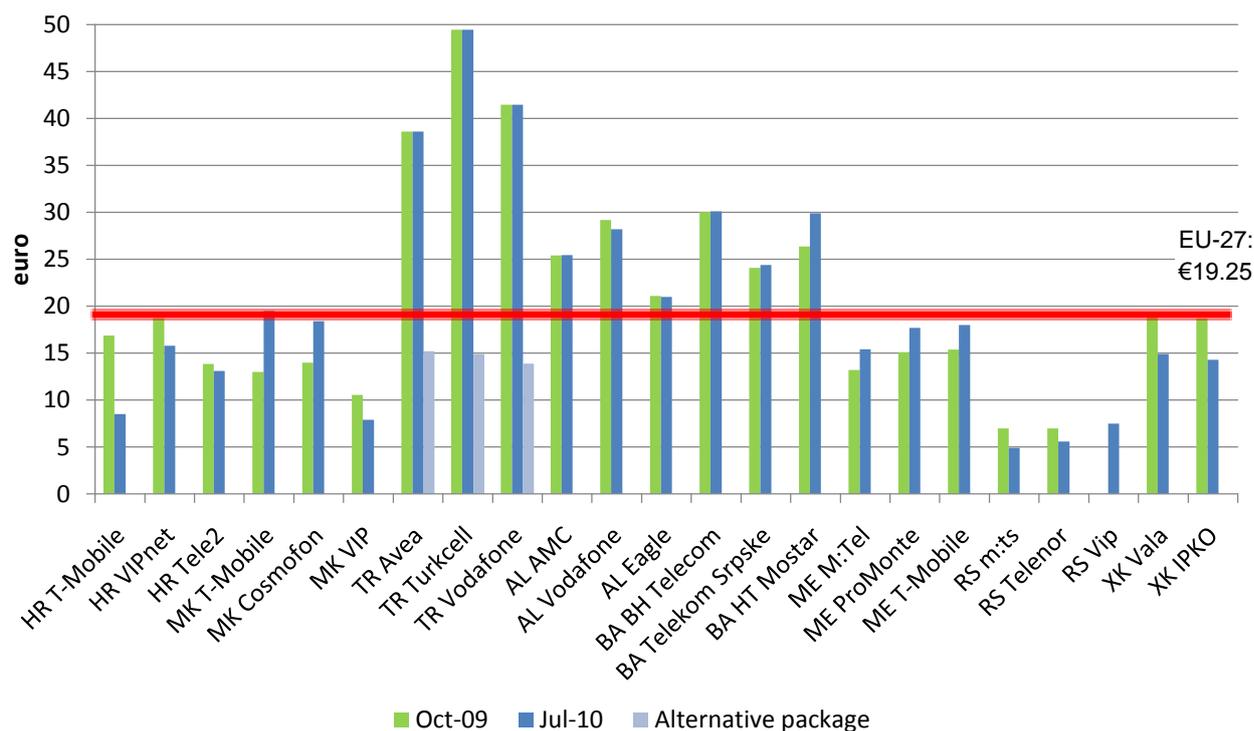


Figure 20 – Medium usage basket in euro per month, including VAT

Note: In 2010 Turkey reported two values: one is calculated in accordance with the earlier reports (packages with the highest number of subscribers). The tariffs applied for those packages are subject to change in relevance with the refilling amount. The other amount refers to alternative packages whose tariffs are valid if there is a refill within 30 days.

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

4. Interconnection tariffs

The figure below illustrates the developments in mobile termination rates in the monitored countries between 2007 and 2010 showing the lowest rate 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 EU-27: mobile termination rates are set at the level symmetrical with the fixed termination rates of the inc€30.19 operator, while more than two times higher rates are applied to the termination of mobile to mobile calls.

¹⁰ <http://www.oecd.org/dataoecd/56/23/41049579.pdf>

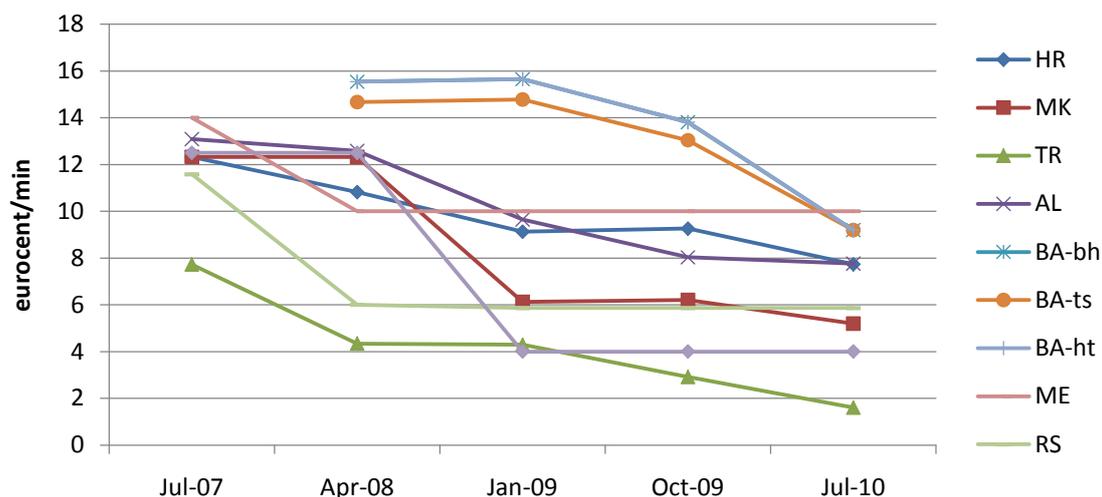


Figure 21 – Fixed to mobile termination rates, peak time

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

As of July 2010, mobile termination rates of all operators in Turkey and Serbia, as well as the two biggest operators in FYROM are set at the level below the EU average of 6.71 eurocents per minute. In Croatia and Albania the rates of the biggest operators are only slightly above the EU average. At the same time, in Montenegro and Bosnia & Herzegovina fixed to mobile termination rates are significantly above the EU average level.

D. Internet and broadband

1. Penetration

In January 2010, there were 8.9 million fixed broadband lines in the eight monitored countries. The average broadband penetration rate reached 9.4% which represents a sevenfold increase from 1.3% penetration reported in 2006. This is still significantly below the EU-27 average rate that in January 2010 was 24.8%. The highest broadband penetration level of 16.1% was observed in Croatia.

In almost all countries, with the exception of Kosovo, mobile operators have been licensed to offer 3G/UMTS services in the 2.1 GHz band and there are now mobile broadband offers available commercially. In Albania, a single 3G licence was issued to Vodafone in December 2010. The penetration of mobile broadband as measured by dedicated data service cards was 5.4% in July 2010. Montenegro stands out with 23%. Among the remaining five countries with commercially available mobile broadband services the highest mobile broadband penetration at 6.1% was observed in Croatia – same as the EU-27 average reported for the same period.

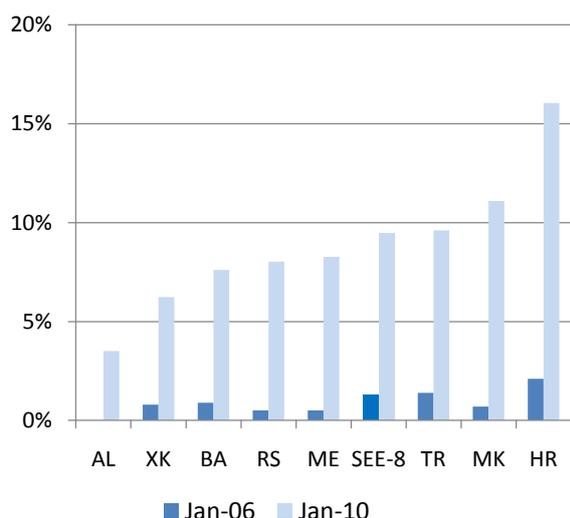


Figure 22 – Fixed broadband penetration

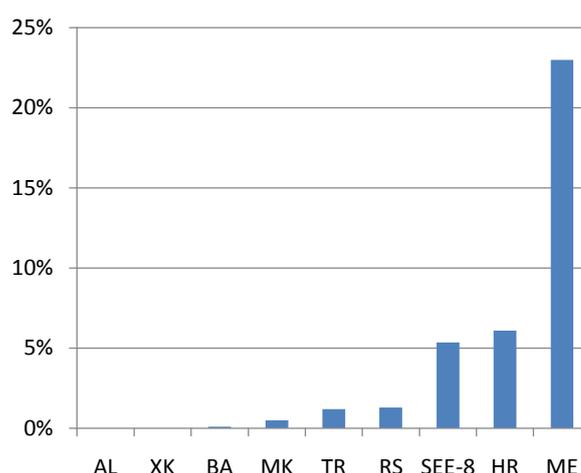


Figure 23 – Mobile broadband penetration: dedicated data cards/modems/keys, July 2010

2. Competition

Fixed broadband markets are dominated by incumbent operators in the countries where xDSL is the main access technology: Croatia, Turkey and Montenegro. In the countries where competitors are using alternative infrastructures – primarily, cable and fixed wireless access networks – the competitive situation is more equitable. In FYROM, Albania, Bosnia & Herzegovina, the market shares of the incumbent operators are close to 50%. In Kosovo and in Serbia, the market shares of the incumbent operators are below 50%. At the same time, in Serbia a significant number of alternative operators rely on the wholesale xDSL offer from the incumbent. Overall market shares of the incumbent operators remained relatively stable during 2008–2010.

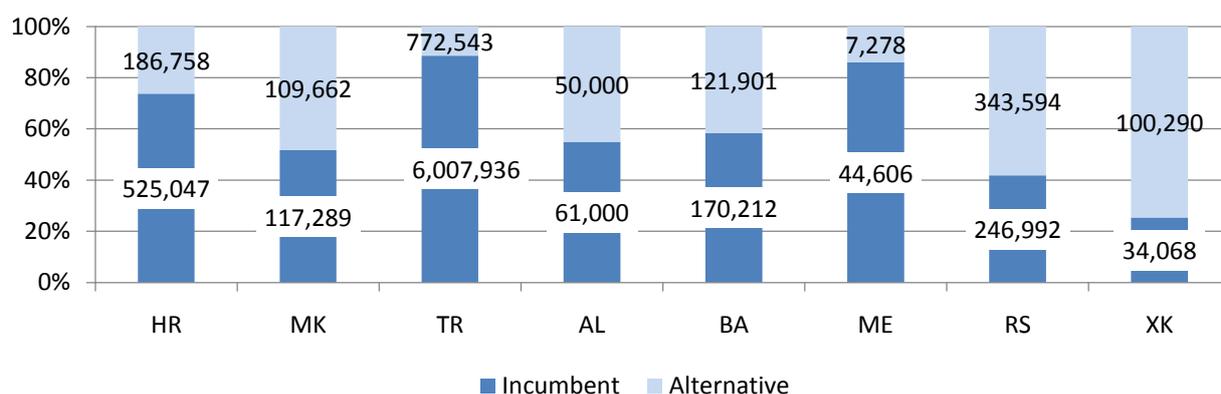


Figure 24 – Fixed retail broadband connections by incumbent and alternative operators, January 2010

In terms of fixed broadband technologies, xDSL dominates most of the markets. At the same time, particularly strong cable presence is observed in FYROM, Bosnia & Herzegovina, Serbia and Kosovo. FWA networks are significant in Bosnia & Herzegovina, Montenegro and Serbia. FWA networks in Bosnia & Herzegovina, which are deployed in unlicensed 2.4 GHz and 5 GHz spectrum bands, grew by 52% between 2008 and 2010.

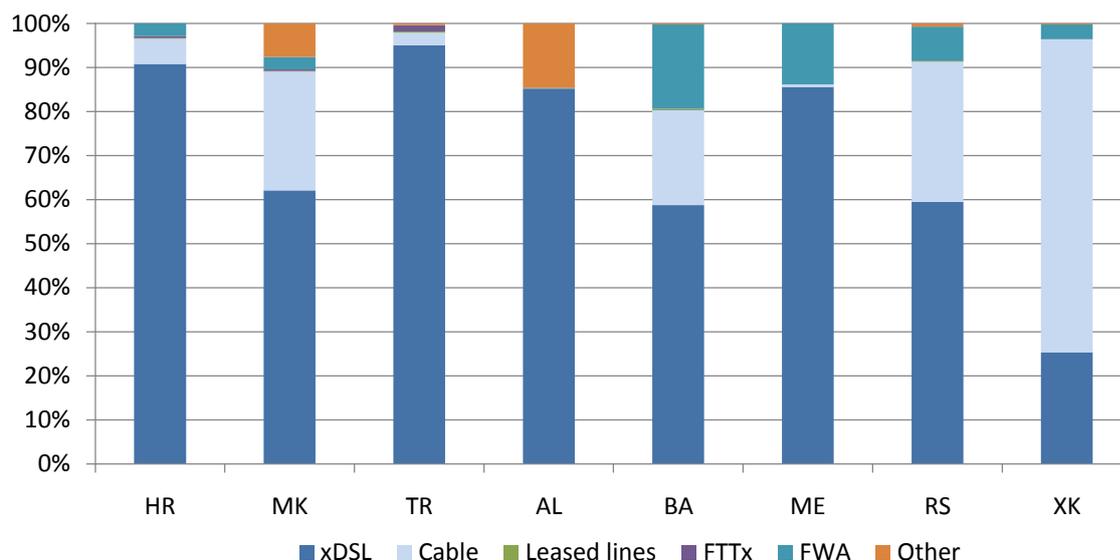


Figure 25 – Fixed retail broadband connections by technology

Alternative xDSL-based broadband offers are available in all countries, except for Montenegro and Kosovo. In Albania, alternative operators control 37% of the retail xDSL broadband connections supplied over their own infrastructures. Also in Bosnia & Herzegovina alternative operators provide broadband services based on own infrastructure, although their market share in the retail xDSL market is negligible 1.2%.

Alternative operators in other countries rely on different forms of wholesale xDSL access supplied by the incumbents. In Croatia, competitors are mainly using full LLU, in Turkey and Serbia wholesale bitstream access. The Serbian incumbent operator was the first in the monitored countries to introduce a commercial wholesale xDSL offer already in 2006. Now it has been gradually strengthening its position in the retail xDSL market: from 60% market share in 2008 to 67% in 2010. In FYROM, the services offered by competitors are mainly based on resale, although there are also emerging offers based on full LLU access.

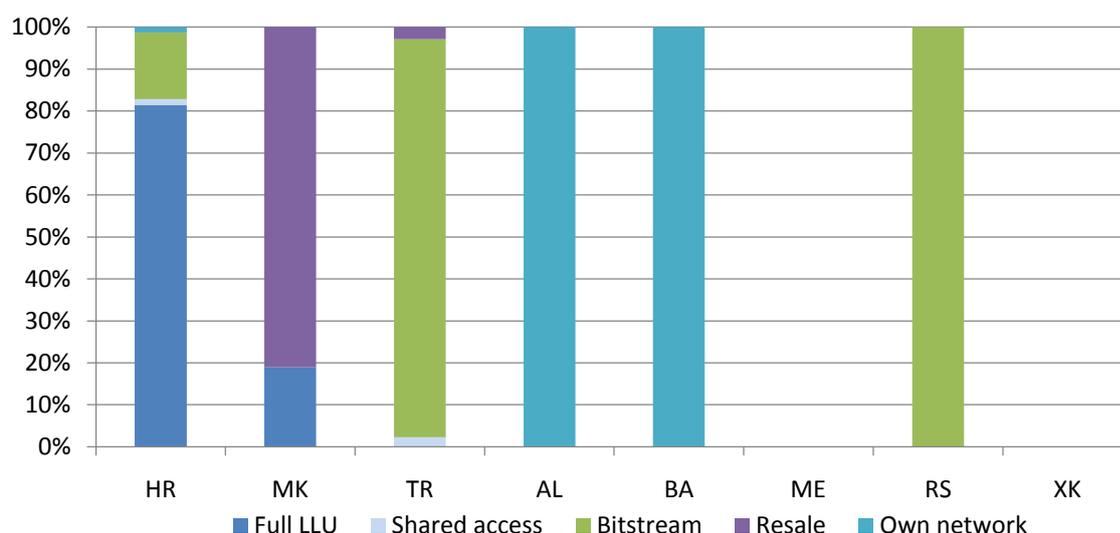


Figure 26 – Alternative operators' xDSL lines by type of access

3. Retail tariffs

This project monitored broadband offerings of the incumbent and the major alternative operator in each of the countries with the following download speeds: 512 kbps, 1 Mbps and 2 Mbps. In several countries, broadband offers were in a very early phase at the beginning of the project and prices decreased rapidly. This report therefore shows only the current price levels.

An assessment of the commercial offerings shows a situation similar to the one observed in the EU member states: the lower speed offerings are phased out by higher speeds. In light of the above, there is limited availability of offers at relatively low speed rates from both incumbents and alternative operators. Furthermore, for the analysed download speeds, the prices of alternative operators tend to be higher or in line with the corresponding offers of the incumbents.

The figures below show the comparison of broadband monthly subscription charges for 1 Mbps, and 2 Mbps offerings of the incumbents in the monitored countries with the EU-27 median offerings according to a 2008 European Commission study.

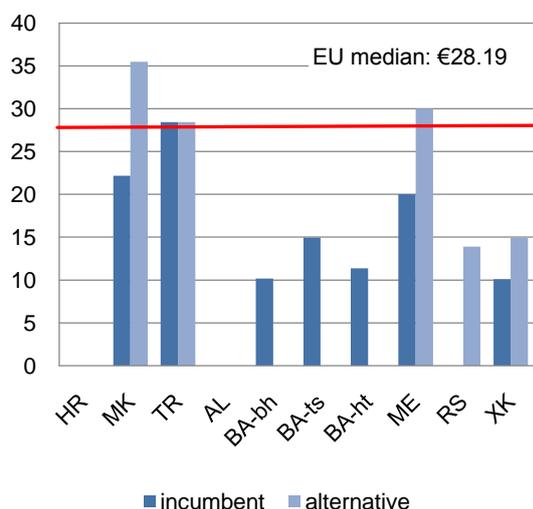


Figure 27 – Broadband 1 Mbps monthly charges in euro, including VAT, July 2010

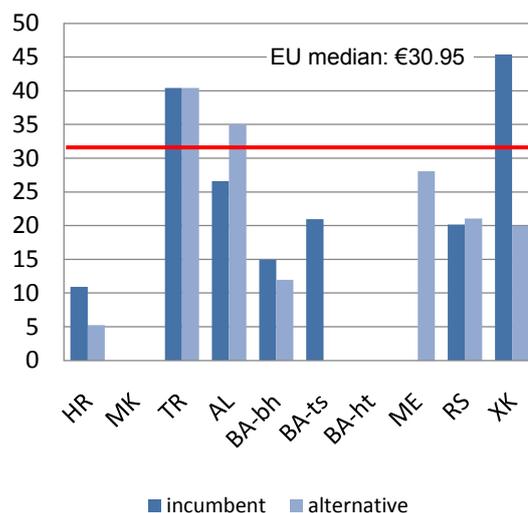


Figure 28 – Broadband 2 Mbps monthly charges in euro, including VAT, July 2010

The monthly charges for 1 Mbps tend to vary across the monitored countries, from approximately €10 to €15 in Bosnia & Herzegovina and Kosovo up to over €20 in FYROM and Montenegro for incumbent operators. Alternative operators are more expensive than the incumbents in FYROM, Montenegro and Kosovo.

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

4. LLU and wholesale broadband access

Only four countries have introduced LLU and have RUOs in place: Croatia since October 2005, FYROM since May 2006, Turkey since November 2006, and Bosnia & Herzegovina since January 2010. Following recent market analyses, the regulatory obligation to provide LLU access was imposed on the incumbent operators in Albania and Montenegro, but not yet implemented in practice. In June 2010 the Serbian NRA issued a ruling on interconnection, LLU and infrastructure access conditions in a dispute between Telenor and Telekom Srbija, covering LLU charges. LLU access, however, is not yet operational pending the final agreement between the two operators.

Given the late and inconsistent introduction of LLU across the region, the number of loops unbundled so far is small, being almost exclusively in Croatia. The Croatian NRA reported almost 130,000 unbundled loops as of Q1 2010, representing 7.6% of fixed lines. In Croatia there are six LLU agreements in place. Although Turkey has had a RUO since November 2006 and there are nine LLU agreements, only about 10,000 loops have been unbundled as of August 2010 on a network of around 18 million lines. In FYROM, there is only one agreement on LLU between Makedonski Telekom and the major alternative operator

One, with around 4,300 unbundled loops as of Q1 2010. In Bosnia & Herzegovina, four LLU agreements have been negotiated but the implementation is still at a very early stage.

The figures below compare the one-off connection charges and monthly rental prices for full and shared LLU access in the monitored countries and the EU-27 averages according to the 15th implementation report.

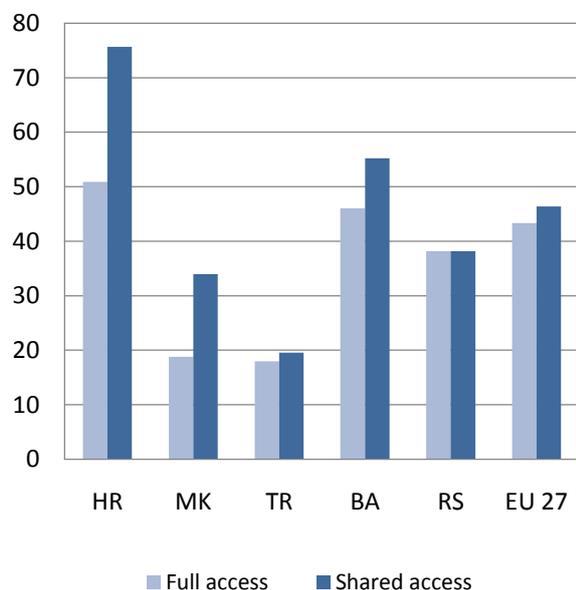


Figure 29 – Connection prices for fully unbundled loop and shared access in euro, July 2010

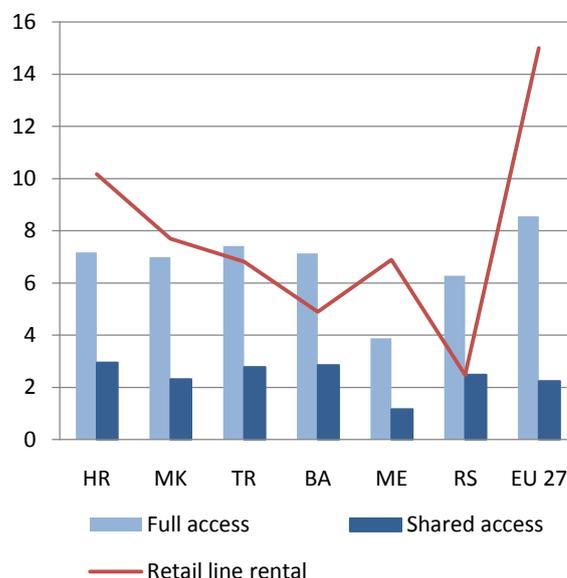


Figure 30 – Monthly rental prices for fully unbundled loop and shared access in euro, July 2010

Monthly rental charges, for both full and shared LLU access have been set at the levels close to the EU average. At the same time, except for Croatia and Montenegro and to a lesser extent FYROM, LLU monthly prices tend to be higher than line rental charges, which inevitably bound to affect competition and take up of LLU.

In addition to LLU, in Croatia, FYROM and Turkey different options for bitstream access are available on the basis of regulated reference offers. In Serbia, Telekom Srbija offers wholesale ADSL with IP handover on a commercial basis.

E. Leased lines

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. In most of the monitored countries, leased line prices have remained substantially unchanged over the last four years, although some decreases have been observed in FYROM and Serbia. At the same time, the range of charges for the same functional offering is very wide across the region.

For example, the annual prices for 2 km 64 kbps leased lines vary from €516 in Turkey to €2,128 in Albania. For 2 km 2 Mbps leased lines, Turkey and Albania have the lowest annual charges among the monitored countries, respectively at €2,619 and €2,980. The highest annual prices for these offerings are in FYROM of €12,122. The EU average in 2009 was €5,952 per year.

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

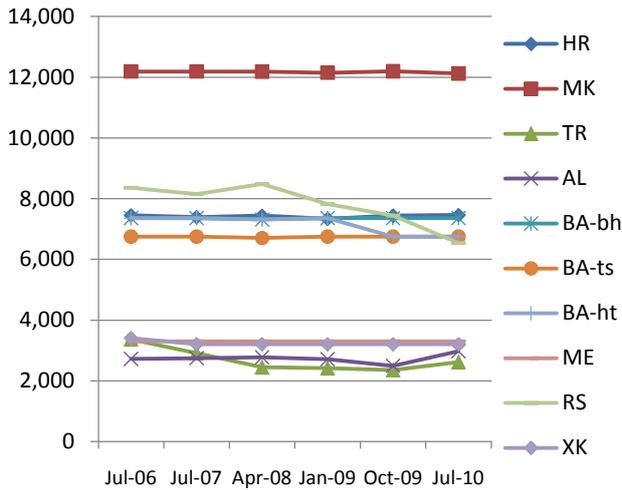


Figure 31 – Annual retail prices for 2 km 2 Mbps leased lines, in euro without VAT, July 2010

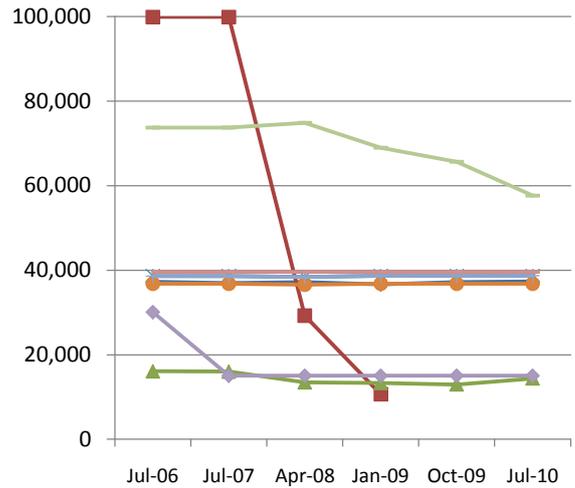


Figure 32 – Annual retail prices for 2 km 34 Mbps leased lines, in euro without VAT, July 2010

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

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.

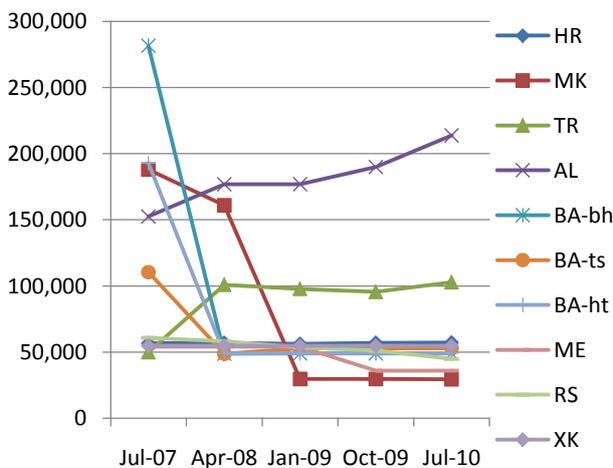


Figure 33 – Annual prices for half circuits 2 Mbps to near country, in euro without VAT, July 2010

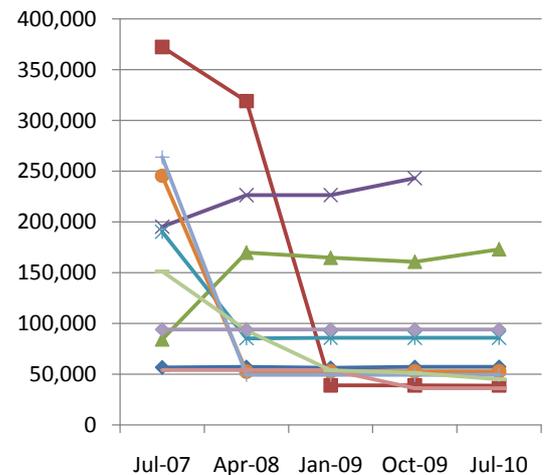


Figure 34 – Annual prices for half circuits 2 Mbps to the UK, in euro without VAT, July 2010

The scope of this project did not include an assessment of wholesale leased line services. However, it appears that in some countries incumbents tend to apply higher prices to wholesale leased lines services supplied to competitors than to retail services provided to their own end users. In particular, this concern has been frequently raised by alternative operators in Serbia.

F. Control of major telecom operators by foreign investors

Foreign investors in telecommunications sector in the monitored countries are mainly represented by other European telecommunications operators that either acquired controlling stakes in incumbent operators during privatisation processes that took place in Croatia, FYROM and Montenegro during 1999–2005 or invested in greenfield mobile operators and fixed alternative operators.

		Fixed incumbent operators	Fixed alternative operators/ISPs	Mobile operators
European telecoms investors				
Deutsche Telekom (DT)	HR	T- Hrvatski Telekom – 51%	Iskon – 51% (100% HT)	T-Mobile Hrvatska – 51% (100% HT)
	MK	Makedonski Telekom – 33.60% (56.67% Magyar Telekom)	-	T-Mobile – 33.60% (100% Makedonski Telekom)
	ME	Telekom Montenegro – 45.53% (76.53% Magyar Telekom)	-	T-Mobile Montenegro – 45.53% (100% Telekom Montenegro)
OTE (30% DT)	AL	-	-	Albanian Mobile Communications – 95%
Telekom Austria	HR	-	VIPnet – 100%	VIPnet – 100%
	MK	-	-	VIP – 100%
	RS	-	-	VIP mobile – 100%
Vodafone	TR	-	-	Vodafone – 100%
	AL	-	-	Vodafone – 100%
Telenor	ME	-	-	Promonte – 100%
	RS	-	Telenor – 100%	Telenor – 100%
Telekom Slovenije	MK	-	One – 100%	One – 100%
	AL	-	Primo – 75%	-
	BA	-	Aneks – 70%	-
	XK	-	Ipko – 93.11%	Ipko – 93.11%
Telekom Srbija (20% OTE)	RS	Telekom Srbija -100%	-	mt:s – 100%
	BA	Telekom Srpske – 65%	-	m:tel – 65% (100% Telekom Srpske)
	ME	-	m:tel –83% (51% Telekom Srbija; 49% Telekom Srpske)	m:tel –83% (51% Telekom Srbija; 49% Telekom Srpske)
Tele2	HR	-	-	Tele2 – 100%
Non-European telecoms investors				
Oger Telecom (UAE)	TR	Türk Telekomünikasyon – 55%	-	Avea – 44.55% (81% Türk Telekom)
Private equity firms				
Çalık Holding (TR)	AL	Albtelecom – 80%	-	Eagle Mobile – 80%
Mid Europa Partners	RS	-	SBB Broadband	-

Table 3 – Control of fixed and mobile operators by foreign investors (>50% stake)

The German incumbent telecommunications operator, Deutsche Telekom is one of the major investors in the region. In Croatia, it directly controls 51% of T-Hrvatski Telekom that also owns one of the major internet providers, Iskon Internet. Through its 60% owned Hungarian subsidiary, Magyar Telekom,

Deutsche Telekom also controls 33.60% of Makedonski Telekom, the incumbent operator in FYROM and 45.53% of Crnogorski Telekom, the incumbent operator in Montenegro. Indirectly, through T-Hrvatski Telekom, Deutsche Telekom also holds a minority stake in the fixed operator HT-Mostar and the mobile operator HT-Euronet in Bosnia & Herzegovina.

The Greek incumbent operator, OTE, holds 20% of Telekom Srbija, the Serbian incumbent operator, and 97% of AMC, a major Albanian mobile network operator. After Deutsche Telekom had acquired controlling stake in OTE in 2008, all subsidiaries of OTE are also 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.

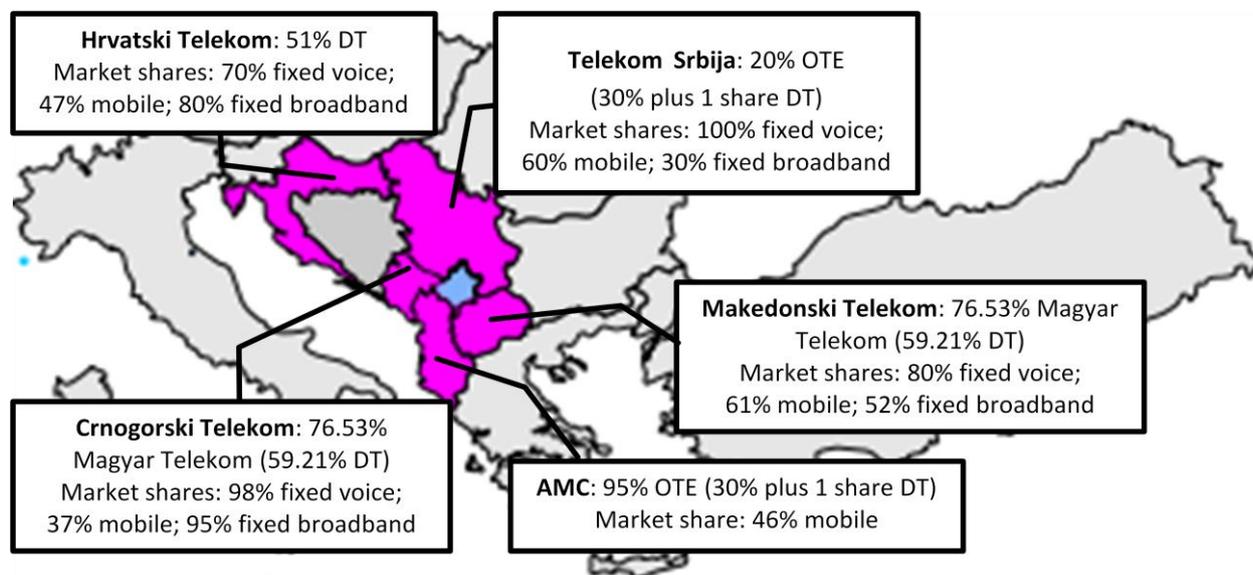


Figure 35 – Deutsche Telekom and OTE group presence in Enlargement countries, 2010

In April 2009, Cosmofon was acquired by Telekom Slovenije, the Slovenian incumbent operator. In addition to Cosmofon, Telekom Slovenije acquired 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'. In November 2010 Telekom Slovenije reached an agreement with minority shareholders to increase its stake to 100%. Telekom Slovenije also controls 93.11% of the major alternative provider of fixed and mobile services in Kosovo, IPKO and has invested in internet service providers in Albania, and Bosnia & Herzegovina.

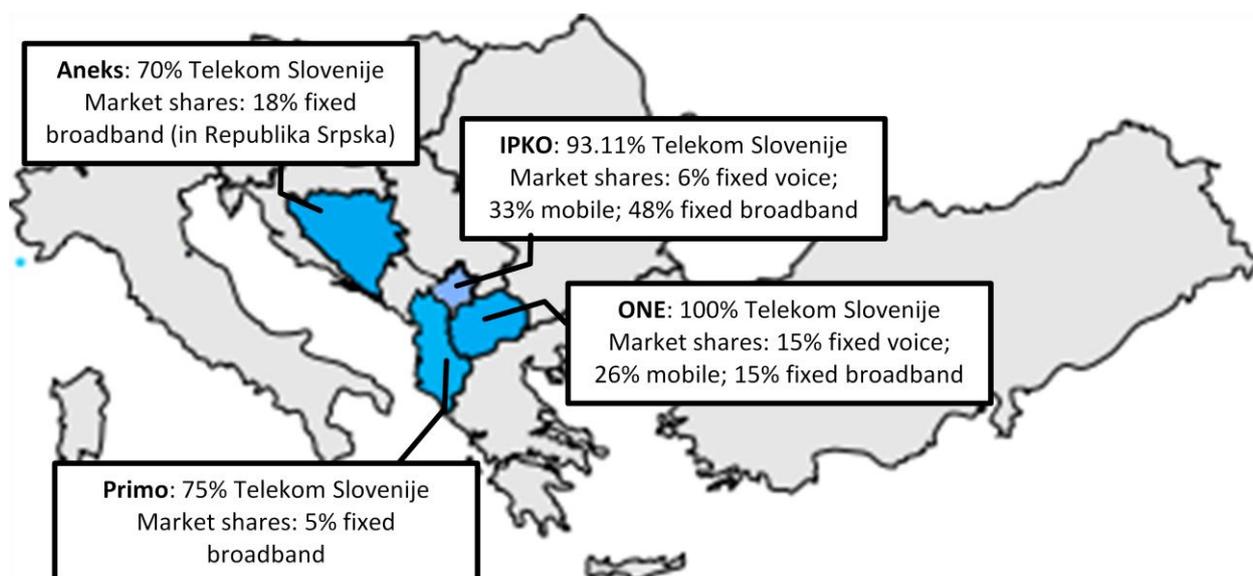


Figure 36 – Telekom Slovenije group presence in Enlargement countries, 2010

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

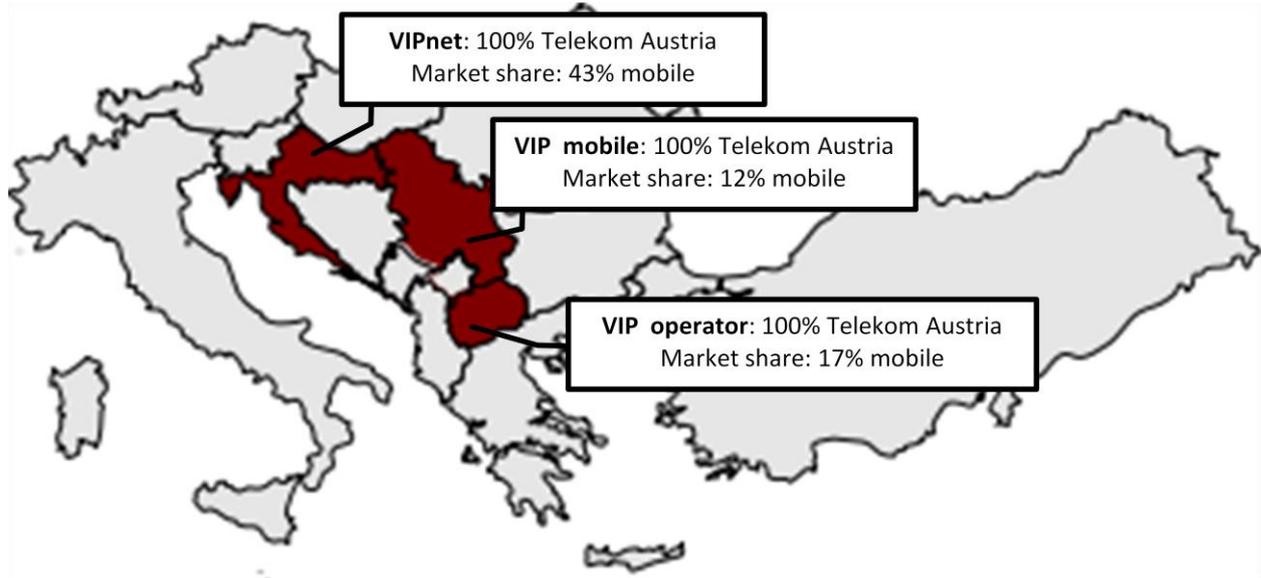


Figure 37 – Telekom Austria group presence in Enlargement countries, 2010

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, owns two mobile operators, in Montenegro and in Serbia. In Serbia, it also acquired a fixed telephony licence in 2010.

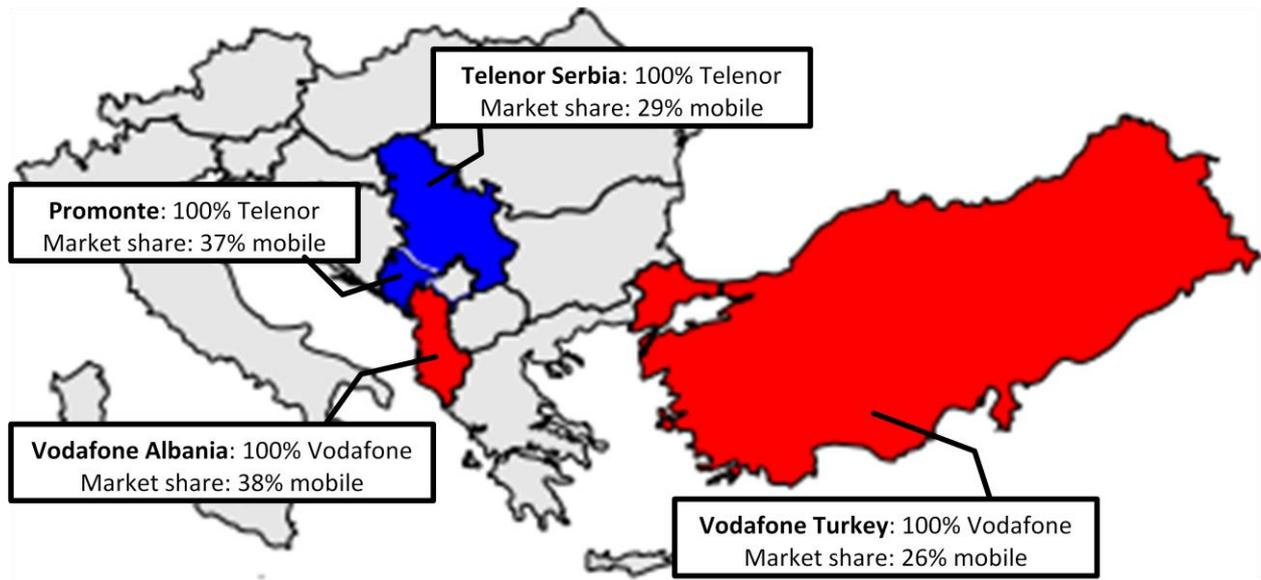


Figure 38 – Telenor and Vodafone presence in Enlargement countries, 2010

Telekom Srbija controls one of the three incumbent operators in Bosnia & Herzegovina – Telekom Srpske in Republika Srpska and a major alternative fixed and mobile operator m:tel in Montenegro. In October 2010, the Serbian government announced a tender procedure for a further 51% stake in Telekom Srbija. Although Telekom Austria, Deutsche Telekom, Turkcell, America Movil, Weather Investments and France Telecom all showed interest in the tender, at the end of March 2011 the only bid was submitted by Telekom Austria. The Serbian government, however, found the financial part of Telekom Austria's offer to be not in compliance with the tender conditions and asked Telekom Austria to submit a higher bid within the next 15 days.

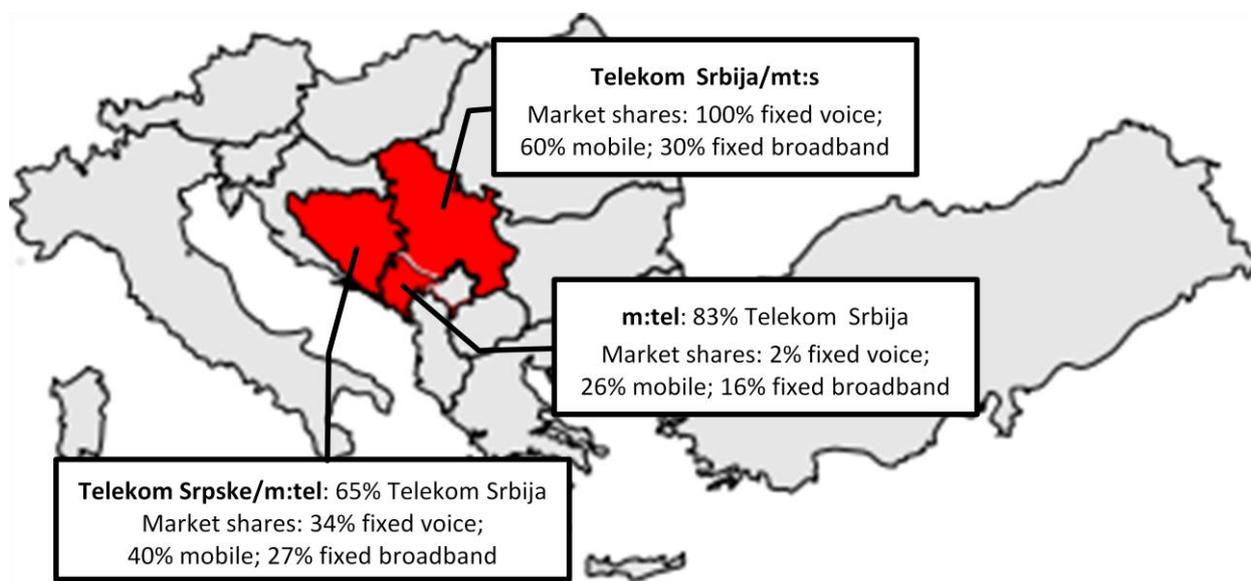


Figure 39 – Telekom Srbija presence in Enlargement countries, 2010

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

III. COUNTRY PROGRESS

The following chapters compare the progress made by the monitored countries over the years 2005 to 2010, the period covered by this project and its predecessor.¹¹

Where the tables refer to a certain year, this generally indicates when a measure became effective, not when it was adopted.¹²

The main differences between the monitored countries can be summarised as follows:

- Croatia has in many aspects been the most advanced amongst the monitored countries. It has fully implemented the EU *acquis* in its legislation and in regulatory practice.
- Regulators in FYROM and Turkey have implemented many competitive safeguards like carrier selection, number portability and unbundling. However, Turkey has not introduced general authorisation before 2009 and the Turkish legislation is still not fully in line with the *acquis*.
- In the other five countries, major parts of the EU regulatory framework have not been implemented yet. Albania, Montenegro and Serbia recently undertook some efforts to align their legislation with the *acquis* and Kosovo is working on a new law. Most competitive safeguards still need to be introduced in all five countries. Regulators lack resources, in particular in Kosovo and Bosnia & Herzegovina.

The following table shows when the countries have aligned their legislation with the EU 2003 regulatory framework and fully liberalised market entry by adopting a general authorisation regime for all categories of electronic communications networks and services. The table also shows how many of the major competitive safeguards¹³ analysed in the project have been introduced between 2005 and 2010.

	Law based on EU 2003 framework	General authorisation	Market analyses ¹⁴	Competitive safeguards ¹⁵
Croatia	2008	2008	2009	☆☆☆☆
FYROM	2005	2005	2010	☆☆☆☆☆
Turkey	2008	2009	2006 2010	☆☆☆☆☆
Albania	2008	2008	2007, 2010	☆☆
Bosnia & Herzegovina	X	undecided	X	☆
Montenegro	2008	2008	2010	☆
Serbia	2010	2012	X	
Kosovo (UNSCR 1244)	X	undecided	X	

Table 4 – Overview of general alignment with EU legislation and practice

¹¹ For a more detailed description of the current status, see the country profiles in the December 2010 report, p. 98 to 138.

¹² This report provides only a summary of the most important facts. For more detailed information on the respective topics, see the following tables in the monitoring reports: legislative framework: December 2010 report, p. 76ff; institutional framework: country profiles and NRA chapters, e.g. December 2010 report, annex, p. 50ff; market access conditions: December 2010 report, annex, p. 80ff; spectrum liberalisation: December 2010 report, annex, p. 93ff; competitive safeguards: December 2010 report, p. 42ff; market data: August 2005 report p. 107f, 168 and December 2010 report p. 24, 26 and annex p. 19.

¹³ See also the more detailed tables for each country on the following pages and the chapter on competitive safeguards in the December 2010 report, pages 42 to 49.

¹⁴ Years, when the first and second rounds of market analyses following the EU 2003 regulatory framework were completed.

¹⁵ One star for each of the following (pairs of) competitive safeguards: fixed and mobile RIOs, RUO, carrier selection and carrier preselection, fixed and mobile number portability, fixed and mobile LRIC models.

A. Croatia

1. Legislative framework

Croatia was amongst the earliest countries in the region aligning its legislation with the *acquis*. The electronic communications law is based on the EU 2003 regulatory framework. Amendments for introducing the EU 2009 regulatory framework are being prepared.

Electronic communications law	Electronic commerce law	Electronic signature law	Cybercrime legislation	E-government legislation
2008	2003	2002	✓	2005

2. Institutional framework

The national regulatory authority was established in 2003 as the Croatian Telecommunications Agency (HAT). In 2008 HAT was merged with the Postal Services Council into the current Croatian Post and Electronic Communications Agency (HAKOM). The administrative capacities of HAKOM have been significantly enhanced over the last years. The long duration of appeal proceedings at courts remains to be a problem.

NRA	NRA appeals	Government	Other	State ownership
The Croatian Post and Electronic Communications Agency (HAKOM) is legally independent of operators and the government.	Appeals against regulatory decisions are decided by the Administrative Court. Average duration of appeal proceedings is five years.	The Ministry of the Sea, Transport and Infrastructure (MMPI) is responsible for policy making in the electronic communications sector.	Central State Administration Office for e-Croatia (since 2003) Croatian Competition Agency (since 1997) Agency for Electronic Media (since 2007)	The state sold 51% of its stakes in the fixed incumbent T-Hrvatski Telekom to Deutsche Telekom in 1999 and 2001. By the end of 2010, state's shareholding was eliminated.

3. Market access conditions

Croatia was the first among the monitored countries to introduce full liberalisation of fixed voice telephony. General authorisation for all electronic communications networks and services was introduced in 2008.

Liberalisation of fixed voice telephony			Liberalisation of data networks	General authorisation	Remaining restrictions
local	national	international			
2003			1999	2008	none

4. Spectrum liberalisation

Croatia has a well functioning spectrum management framework with three mobile network operators offering GSM and UMTS and several regional fixed wireless access providers. Since 2009 the mobile licences are technology neutral. Analogue switch-off was completed in October 2010, earlier than in most EU member states.

900 MHz	1800 MHz	2.1 GHz	3.5 GHz	3G in 900/1800?
3 licences 1995, 1998, 2007	2 licences 2004, 2007	3 licences 2004	30 regional licenses	allowed in 2009

5. Competitive safeguards

Croatia introduced most of the competitive safeguards during 2005 – 2006, earlier than other monitored countries did. National roaming is offered to the new entrant mobile operator on commercial basis. HAKOM plans to impose wholesale line rental in 2011. A remaining task is to develop LRIC cost models for fixed and mobile services.

	CS	CPS	NP fixed	NP mobile	RIO fixed	RIO mobile	RUO	WBA	WLR	MVNO	nat. roaming	LRIC fixed	LRIC mobile	tariff rebal.
2005	x	x	x	x	✓	✓	x	x	x	x	✓	x	x	✓
	2005	2005	2006	2006	2005	2005	2005	2007	-	-	-	-	-	-
2010	✓	✓	✓	✓	✓	✓	✓	✓	x	x	✓	x	x	✓

6. Market structure

The incumbent T-Hrvatski Telekom is the main provider of fixed services, but alternative operators gained about 30% market share. Croatia has three mobile network operators. Broadband penetration is relatively high, with 16% of population using fixed and 6% using mobile broadband.

	Fixed lines penetration	Mobile penetration	Broadband penetration	Electronic communications as % of GDP
2005	38%	64%	0.6%	4.9%
2010	39%	136%	16%	3.7%

7. Outlook

Croatia fulfilled the EU accession requirements for information society and media at the end of 2008. Competition in the fixed markets is significantly stronger than in the other monitored countries. A remaining task for HAKOM is the finalisation of cost accounting models.

B. The former Yugoslav Republic of Macedonia (FYROM)

1. Legislative framework

FYROM was first among the monitored countries to adopt an electronic communications law based on the EU 2003 regulatory framework. Information society legislation is well aligned with the *acquis*. However, there are no concrete plans yet for implementing the EU 2009 regulatory framework.

Electronic communications law	Electronic commerce law	Electronic signature law	Cybercrime legislation	E-government legislation
2005	2007	2001	✓	2001, 2009

2. Institutional framework

The Agency for Electronic Communications was established in 2005 as an independent authority. However, its initial activities were seriously hampered by the lack of administrative capacity. The situation only improved in 2009 following the recruitment of new qualified staff. At government level, there is still little administrative capacity for drafting legislation and policy setting.

NRA	NRA appeals	Government	Other	State ownership
The Agency for Electronic Communications (AEC) is legally independent of operators and the government.	Appeals against regulatory decisions are decided by the Administrative Court. No data is available on the duration of appeals.	The Ministry of Transport and Communications is responsible for policy making in the electronic communications sector.	Ministry of Information Society and Administration (since 2005) Commission for Protection of Competition (since 2005) Broadcasting Council (since 1997)	In 2000 the state sold 51% of its shares in the fixed incumbent Makedonski Telekom. Currently, government controls 34.81% plus one golden share.

3. Market access conditions

Fixed voice telephony was liberalised by introducing a general authorisation framework in 2005. The existing concession contracts of the fixed incumbent and the mobile operators were replaced by general authorisation in 2008.

Liberalisation of fixed voice telephony			Liberalisation of data networks	General authorisation	Remaining restrictions
local	national	international			
2005			1998/2000	2005	none

4. Spectrum liberalisation

FYROM has three mobile network operators. UMTS licences were awarded late, in 2008, and only to two of the three operators. AEC awarded several regional and national licences for fixed wireless access in 2007. In 2009 the frequency plan was amended to allow UMTS in the 900 and 1800 MHz bands.

900 MHz	1800 MHz	2.1 GHz	3.5 GHz	3G in 900/1800?
3 licences 2001, 2001, 2007	2 licences 2008, 2009	2 licences Feb. & Dec. 2008	6 regional licences (1 licensee)	allowed in 2009

5. Competitive safeguards

No other country in the region has implemented more competitive safeguards than FYROM. As shown in the table, most safeguards were introduced in 2007 and 2008, although the practical implementation mainly took place in 2009.

	CS	CPS	NP fixed	NP mobile	RIO fixed	RIO mobile	RUO	WBA	WLR	MVNO	nat. roaming	LRIC fixed	LRIC mobile	tariff rebal.
2005	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	2007	2007	2008	2008	2006	2008	2006	2007	2009	2010	2007	2008	2010	–
2010	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X

6. Market structure

Makedonski Telekom is the incumbent provider of fixed services. Eight major alternative fixed operators have gained a market share of about 19%. There are three mobile network operators, but only two offering UMTS. Fixed broadband penetration is moderate and mobile broadband still in an early phase.

	Fixed lines penetration	Mobile penetration	Broadband penetration	Electronic communications as % of GDP
2005	29%	49%	0.1%	7.8%
2010	21%	95%	11%	7.0%

7. Outlook

AEC has been successful in completing its first round of market analyses and implementing a broad range of competitive safeguards.

Increased efforts are necessary to align the legislative framework fully with the *acquis* and implement new requirements from EU legislation and Commission recommendations.

C. Turkey

1. Legislative framework

Turkey's legislation is complex and some important issues are only addressed by secondary legislation. The process of aligning the legislation with the *acquis* is slow and not without setbacks, such as the adoption in 2007 of the controversial Law 5651 that obliges internet service providers to block access to

websites with illegal content. At the same time, no legislation transposing the Electronic Commerce Directive has been adopted. The Electronic Communications Law of 2008 is based on the EU 2003 regulatory framework.

Electronic communications law	Electronic commerce law	Electronic signature law	Cybercrime legislation	E-government legislation
2008	✗	2004	✓	secondary legislation

2. Institutional framework

Legislation adopted in 2008 introduced a clearer distinction between the competencies of the regulator and the ministry and stipulated ICTA's independence. However, the ministry is still responsible for the implementation of universal service and may open tender procedures to issue spectrum authorisations.

NRA	NRA appeals	Government	Other	State ownership
The Information and Communication Technologies Authority (ICTA, until 2008: Telecommunications Authority) is legally independent of operators and the government.	Appeals against regulatory decisions are decided by courts (Council of State or Administrative Court). No data is available on the duration of appeals.	The Ministry of Transport and Communications is responsible for policy making in the electronic communications sector.	State Planning Organization (since 1960) is responsible for all long-term strategies Competition Authority (since 1997) Radio and Television Supreme Council (since 1994)	In 2005 the state sold 55% of its shares in the fixed incumbent Türk Telekom. Currently, the state holds 30% and a golden share of Türk Telekom and controls the satellite and cable TV operator Türksat.

3. Market access conditions

Full liberalisation of fixed voice telephony has been a slow process. Although the new law came into force in 2008, the general authorisation framework and liberalisation of local services only came into force in May 2009. Older authorisation and concession agreements have not yet been aligned with the new legal framework.

Liberalisation of fixed voice telephony			Liberalisation of data networks	General authorisation	Remaining restrictions
local	national	international			
2009	2004	2004	1994/2004	2009	none

4. Spectrum liberalisation

Turkey has three mobile network operators, each offering GSM and UMTS services. The UMTS licences were awarded late, in 2008. Turkey has not awarded licences for fixed wireless access. Analogue switch-off is planned for 2014.

900 MHz	1800 MHz	2.1 GHz	3.5 GHz	3G in 900/1800?
3 licences 1998 (2), 2000	1 licence 2000	3 licences 2009	no licence	✗

5. Competitive safeguards

Turkey has made significant progress with introducing competitive safeguards in the years 2006 to 2009, as shown in the table below. Tariff rebalancing is also well advanced. Because liberalisation of local calls was late (2009), carrier (pre-)selection for local calls also could only be implemented in 2009.

	CS	CPS	NP fixed	NP mobile	RIO fixed	RIO mobile	RUO	WBA	WLR	MVNO	nat. roaming	LRIC fixed	LRIC mobile	tariff rebal.
2005	✗	✗	✗	✗	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗
	2006	2006	2009	2008	-	-	2006	2007	-	-	-	2009	2009	-
2010	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓

6. Market structure

Competition in the fixed networks started late, as Türk Telekom had exclusive rights until 2009. There are three mobile network operators. Fixed broadband penetration is moderate at 10%. Mobile broadband penetration is low (1.2%), due to the late launch of UMTS.

	Fixed lines penetration	Mobile penetration	Broadband penetration	Electronic communications as % of GDP
2005	29%	49%	0.7%	3.6%
2010	23%	86%	10%	2.0%

7. Outlook

Regulation of electronic communications markets and information society issues is developing slowly. Full liberalisation of voice services and UMTS licences did not become effective before 2009.

Increased efforts are needed for aligning the legislation fully with the *acquis* and ensuring effective implementation of regulatory obligations.

D. Albania

1. Legislative framework

Albania has implemented the *acquis* relatively late, between 2008 and 2010. The electronic communications law is based on the EU 2003 regulatory framework. Amendments for introducing the EU 2009 regulatory framework are being prepared.

Electronic communications law	Electronic commerce law	Electronic signature law	Cybercrime legislation	E-government legislation
2008	2009	2008	✓	2010

2. Institutional framework

The national regulatory authority was established in 2000 as an independent legal entity. However, independence has in practice been hampered as parliament repeatedly replaced the entire board upon government initiative.

NRA	NRA appeals	Government	Other	State ownership
The Authority of Electronic and Postal Communications (AKEP, until 2008: TRE) is legally independent of operators and the government.	Appeals against regulatory decisions are decided by the normal civil courts, but the appeal procedure is slow and of little efficiency.	Since 2009 the Ministry for Innovation and ICT is responsible for all information society topics.	National Agency on Information Society (since 2007) Competition Authority (since 2004) National Council on Radio Television (since 1999)	In 2007 the state reduced its stakes in the fixed incumbent Albtelecom from 100% to 24%.

3. Market access conditions

General authorisation for all electronic communications networks and services was introduced in 2008. Albania still has some legal restrictions preventing cable networks from offering voice services or broadband access.

Liberalisation of fixed voice telephony			Liberalisation of data networks	General authorisation	Remaining restrictions
local	national	international			
1998 (rural) 2007 (urban)	2003	2005	1998	2008	cable operators

4. Spectrum liberalisation

Liberalisation of access to spectrum is slow and hampered by political interventions. AKEP prepared issuing four UMTS licences in 2010, but the minister decided to award only one licence. Albania has not awarded licences for fixed wireless access and has not yet decided on analogue switch-off.

900 MHz	1800 MHz	2.1 GHz	3.5 GHz	3G in 900/1800?
4 licences 1999, 2001, 2004, 2009	4 licences 1999, 2001, 2004, 2009	1 licence 2010	No licence	X

5. Competitive safeguards

Albania is lagging behind with implementation of competitive safeguards, but made progress with decisions on RIOs and implementation of LRIC cost accounting models in 2009. AKEP is planning to introduce further safeguards, in particular number portability, in 2011.

	CS	CPS	NP fixed	NP mobile	RIO fixed	RIO mobile	RUO	WBA	WLR	MVNO	nat. roaming	LRIC fixed	LRIC mobile	tariff rebal.
2005	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	-	-	-	-	2009	2009	-	-	-	-	-	2009	2009	-
2010	X	X	X	X	✓	✓	X	X	X	X	X	✓	✓	X

6. Market structure

Fixed lines penetration and broadband penetration are amongst the lowest in the region. Albtelecom remains the dominant player. The mobile sector is still dominated by AMC and Vodafone, as the third and fourth operator only became operational in 2008 and 2010, respectively.

	Fixed lines penetration	Mobile penetration	Broadband penetration	Electronic communications as % of GDP
2005	9%	39%	no DSL available	6.2%
2010	11%	113%	4%	5.9%

7. Outlook

Regulation of electronic communications markets and information society issues has developed slowly, but gained speed in the years 2008 to 2010. New government policies and AKEP's work plans set ambitious goals to complete implementation of the EU *acquis* in due course.

However, practical implementation has often been hampered by a lack of institutional stability or by political interventions. The NRA needs additional resources to introduce further competitive safeguards and to enforce its decisions.

E. Bosnia & Herzegovina

1. Legislative framework

Bosnia & Herzegovina is lagging behind its neighbouring countries. The electronic communications law is still based on the EU 1998 regulatory framework and the country has not made progress with drafting a new electronic communications law nor cybercrime legislation. With regard to electronic commerce and electronic signature there are laws both at state level and in the Republika Srpska, which are not aligned with each other.

Electronic communications law	Electronic commerce law	Electronic signature law	Cybercrime legislation	E-government legislation
2003	2007	2006	X	X

2. Institutional framework

The Communications Regulatory Agency (RAK) was established in 2001 as a converged regulator for telecommunications and media. Implementation of the EU regulatory framework is hindered by a lack of resources both at the regulator and in the ministry. The Council of Ministers is failing to appoint the Director General of RAK since 2007 and RAK Council members since 2009.

NRA	NRA appeals	Government	Other	State ownership
The Communications Regulatory Agency (RAK, since 2001) is legally independent of operators and the government.	Appeals against regulatory decisions are decided by the State Court, but the appeal procedure can take several years.	The Council of Ministers is responsible for adopting policies. The Ministry of Communications and Transport drafts policies and legislation.	Council of Competition (since 2004) RAK is also the media regulator Plans to establish an Agency for Development of the Information Society have not been successful	There are three incumbent operators. Telekom Srpske has been fully privatised, but the other two (BH Telecom and HT) are still controlled by the Federation of Bosnia & Herzegovina.

3. Market access conditions

Liberalisation of the telecommunications markets was completed at the beginning of 2006. Bosnia & Herzegovina is amongst the last countries of the region, which has not introduced a general authorisation framework.

Liberalisation of fixed voice telephony			Liberalisation of data networks	General authorisation	Remaining restrictions
local	national	international			
2002	2002	2006	2002	✗	none

4. Spectrum liberalisation

The mobile subsidiaries of the three incumbent operators have the same spectrum usage rights in all three bands. UMTS licences were awarded late, in 2009. Bosnia & Herzegovina has already made the 900 and 1800 MHz bands technology neutral and plans to finish analogue switch-off in 2011. No licences for fixed wireless access have been awarded, but several operators offer wireless broadband services in the unlicensed 2.4 GHz and 5 GHz bands.

900 MHz	1800 MHz	2.1 GHz	3.5 GHz	3G in 900/1800?
3 licences 2004	3 licences 2004	3 licences 2009	no licence	allowed in 2010

5. Competitive safeguards

Bosnia & Herzegovina is lagging behind with implementation of competitive safeguards. RIOs of the three fixed incumbents are available since 2006 and carrier selection since 2007. Each of the three mobile network operators maintains national roaming with the other two to ensure national coverage. Introduction of number portability in mobile and in fixed networks is planned in 2011.

	CS	CPS	NP fixed	NP mobile	RIO fixed	RIO mobile	RUO	WBA	WLR	MVNO	nat. roaming	LRIC fixed	LRIC mobile	tariff rebal.
2005	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗
	2007	–	–	–	2006	–	2010	–	–	–	–	–	–	–
2010	✓	✗	✗	✗	✓	✗	✓	✗	✗	✗	✓	✗	✗	✗

6. Market structure

The specific aspect of Bosnia & Herzegovina is the existence of three regional incumbent operators. The incumbents face little competition with regard to fixed voice telephony services, but strong competition from alternative cable and wireless networks offering broadband access. Each of the incumbent operators also has a mobile subsidiary offering mobile services nation-wide. Mobile broadband is still in a very early phase.

	Fixed lines penetration	Mobile penetration	Broadband penetration	Electronic communications as % of GDP
2005	25%	34%	0.1%	7.6%
2010	25%	85%	8%	5.3%

7. Outlook

Bosnia & Herzegovina is impaired by its unclear constitutional situation and the struggle for competencies between the state and the entities. This has hindered alignment of legislation with the EU 2003 and 2009 regulatory frameworks and weakens RAK.

Bosnia & Herzegovina needs to overcome this problem, to appoint Director General and council members of RAK, to adopt new legislation and to increase RAK's resources for market analyses, implementation of regulatory obligations and enforcement.

F. Montenegro

1. Legislative framework

Montenegro has largely aligned its information society legislation with the *acquis*. The EU 2003 regulatory framework has been transposed by the new electronic communications law, which was adopted in 2008. Montenegro was the first country of the region to transpose the Audiovisual Media Services Directive in 2010.

Electronic communications law	Electronic commerce law	Electronic signature law	Cybercrime legislation	E-government legislation
2008	2004	2003	✓	2008

2. Institutional framework

The Agency for Electronic Communications and Postal Services (EKIP) is the national regulatory authority. It was established in 2001, but its competencies and name were changed first in 2005, when it took over regulation of the postal sector, and then in 2008, when it became the sole authority responsible for spectrum assignments. The last amendment undermined EKIP's independence by making the ministry the appellate body for regulatory decisions.

NRA	NRA appeals	Government	Other	State ownership
Agency for Electronic Communications and Postal Services (EKIP) is legally independent of operators.	Appeals against regulatory decisions may be filed to the ministry. Decisions of the ministry can be appealed to the Supreme Administrative Court.	At the end of 2010, competencies were moved from the Ministry of Maritime Affairs, Transportation and Telecommunications to the Ministry for Information Society and Telecommunications	Directorate for Protection of Competition (since 2007) Broadcasting Agency (since 2003)	The state does not hold any shares of operators. In 2005, government sold its 76.53% of fixed incumbent Crnogorski Telekom.

3. Market access conditions

Montenegro formally liberalised its telecommunications markets at the beginning of 2004, but the high licensing fees created a barrier to entry until 2007. General authorisation for all electronic communications networks and services was introduced in 2008.

Liberalisation of fixed voice telephony			Liberalisation of data networks	General authorisation	Remaining restrictions
local	national	international			
2004			2004	2008	none

4. Spectrum liberalisation

Montenegro has three mobile operators, each having the same spectrum usage rights in all three bands. Montenegro has also awarded several licences for fixed wireless access. Analogue switch-off is planned for 2012.

900 MHz	1800 MHz	2.1 GHz	3.5 GHz	3G in 900/1800?
3 licences 2002 (2), 2007	3 licences 2002 (2), 2007	3 licences 2007	5 licences 2007 (4), 2009	X

5. Competitive safeguards

Montenegro is lagging behind with implementation of competitive safeguards, but has made some progress with tariff rebalancing. Carrier selection was introduced in December 2007.

	CS	CPS	NP fixed	NP mobile	RIO fixed	RIO mobile	RUO	WBA	WLR	MVNO	nat. roaming	LRIC fixed	LRIC mobile	tariff rebal.
2005	X	X	X	X	✓	X	X	X	X	X	X	X	X	X
2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	✓	X	X	X	✓	X	X	X	X	X	X	X	X	✓

6. Market structure

The fixed telephony market is strongly dominated by Crnogorski Telekom, which has 98% market share. Competition has emerged in mobile networks with three operators having similar market shares. Mobile penetration is very high even compared with EU member states and 23% of population use mobile broadband.

	Fixed lines penetration	Mobile penetration	Broadband penetration	Electronic communications as % of GDP
2005	31%	78%	no DSL available	11.7%
2010	28%	209%	8%	9.3%

7. Outlook

Competition in fixed markets remains low, as most of the competitive safeguards have not yet been fully introduced. EKIP made some progress in 2010 and completed its first round of market analyses, but it remains to be seen when the obligations become effective.

Administrative capacities both in EKIP and the (recently restructured) ministry need to be strengthened. EKIP's independence depends on whether appeals against regulatory decisions can be directly addressed to a court.

G. Serbia

1. Legislative framework

Serbia is amongst the last countries of the region to transpose the EU 2003 regulatory framework. The new electronic communications law was adopted in 2010, but will not bring full liberalisation of voice telephony before 2012. There are no concrete plans yet for transposing the EU 2009 regulatory framework.

Electronic communications law	Electronic commerce law	Electronic signature law	Cybercrime legislation	E-government legislation
2010	2009	2004	✓	2009

2. Institutional framework

The national regulatory authority, RATEL, was established as an independent legal entity in 2003, but became operational only in 2005. Its independence has been undermined by the ministry's supervision powers and by the systematic delays in approval of its board members. In 2008 the ministry tried to take over all of RATEL's powers for 120 days.

NRA	NRA appeals	Government	Other	State ownership
The Republic Electronic Communications Agency (RATEL, until 2010: Republic Telecommunications Agency) is legally independent of operators.	Appeals against regulatory decisions are decided by the Administrative Court and can be further appealed to the Supreme Court.	The Ministry of Telecommunications and Information Society is responsible for all information society topics (in March 2011 reorganised into the Ministry of Culture, Media and Information Society)	Commission for Protection of Competition (since 2005) Republic Broadcasting Agency (since 2003)	Government still controls 80% and a golden share of the incumbent Telekom Srbija, but plans to sell 51% in 2011.

3. Market access conditions

Serbia is the last country of the region to liberalise its fixed voice telephony markets. Although markets have been formally liberalised since June 2005, only two licences were issued to alternative operators: a fixed wireless access licence in 2009 and a fixed network licence in 2010. The new general authorisation framework will only come fully into force at the beginning of 2012.

Liberalisation of fixed voice telephony			Liberalisation of data networks	General authorisation	Remaining restrictions
local	national	international			
Formal liberalisation: 2005 De facto liberalisation: January 2012			2003/2005	2012	Fixed voice services (until end of 2011)

4. Spectrum liberalisation

Serbia has three mobile network operators, each offering GSM and UMTS services. Two national licences for fixed wireless access in the 410 MHz band were issued in 2009. The 3.5 GHz band is only used at specific locations, mainly within Belgrade and Novi Sad. Analogue switch-off is planned for April 2012.

900 MHz	1800 MHz	2.1 GHz	3.5 GHz	3G in 900/1800?
3 licences 2006	3 licences 2006	3 licences 2006	several local permits	✗

5. Competitive safeguards

Serbia is lagging behind with implementation of competitive safeguards. Wholesale broadband access and national roaming are available based on commercial offers. The first RIO of the fixed incumbent operator was published in 2008. Implementation of number portability in mobile networks is envisaged in 2011.

	CS	CPS	NP fixed	NP mobile	RIO fixed	RIO mobile	RUO	WBA	WLR	MVNO	nat. roaming	LRIC fixed	LRIC mobile	tariff rebal.
2005	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗
	-	-	-	-	2008	-	-	2006	-	-	-	-	-	-
2010	✗	✗	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✗

6. Market structure

Fixed lines penetration is the highest amongst the monitored countries, but Telekom Srbija was the only licensed provider of fixed voice services until 2010. There is some competition in broadband access services, mainly from cable operators. Serbia has three mobile networks and a relatively high mobile penetration. Mobile broadband is in its early stages.

	Fixed lines penetration	Mobile penetration	Broadband penetration	Electronic communications as % of GDP
2005	34%	57%	<0.1%	4.5%
2010	42%	132%	8%	5.0%

7. Outlook

Serbia is at an early stage of liberalisation. Legislation has been adopted slowly and most of the competitive safeguards have not yet been implemented. Administrative capacities need to be strengthened. Network rollout is subject to complex bureaucratic procedures.

Development of competition in fixed markets will be further delayed as full liberalisation will not come into force before 2012.

H. Kosovo (under UN Security Council Resolution 1244)

1. Legislative framework

Kosovo's information society legislation is largely based on a one-time legislative effort in the year 2002, which has not been followed by significant legislative activity over several years. Kosovo resumed its activity in 2010 by adopting new cybercrime legislation and drafting a law that will transpose the EU 2003 and 2009 regulatory frameworks.

Electronic communications law	Electronic commerce law	Electronic signature law	Cybercrime legislation	E-government legislation
2002	2002	2002	2010	2002

2. Institutional framework

The Telecommunications Regulatory Authority was established in 2003 as an independent legal entity. However, its operations have been subject to political and administrative interference. Administrative capacities both at the regulator and the ministry are limited.

NRA	NRA appeals	Government	Other	State ownership
The Telecommunications Regulatory Authority (TRA) is legally independent of operators and the government.	Appeals against regulatory decisions are decided by the Administrative Court. Appeal procedures take longer than one year.	The Ministry of Transport and Communications is responsible for all information society issues.	Competition Commission (since 2008) Independent Media Commission (since 2005)	The incumbent operator PTK is still 100% state owned. In November 2010 parliament adopted a strategy for privatising a 75% stake.

3. Market access conditions

Although telecommunications markets were formally liberalised in 2003, the practical implementation was delayed and PTK maintained exclusive rights for international gateways until the end of 2007. Kosovo is drafting a new law that would introduce a general authorisation framework for all electronic communications networks and services in 2011.

Liberalisation of fixed voice telephony			Liberalisation of data networks	General authorisation	Remaining restrictions
local	national	international			
2003	2003	2008	2003/2008	X	none

4. Spectrum liberalisation

Kosovo has only two authorised mobile network operators and is the only country in the region not having awarded any UMTS licence. Kosovo has neither awarded licences for fixed wireless access, nor made the 900 and 1800 MHz bands technology neutral. Neither has it decided on a strategy for analogue switch-off and use of the digital dividend.

900 MHz	1800 MHz	2.1 GHz	3.5 GHz	3G in 900/1800?
2 licences 2004, 2007	1 licence 2007	no licence	no licence	X

5. Competitive safeguards

Kosovo is lagging behind with implementation of competitive safeguards. The first RIO of the fixed incumbent operator was approved in 2007. A regulatory framework for MVNOs was introduced in 2008 and two MVNOs became operational.

	CS	CPS	NP fixed	NP mobile	RIO fixed	RIO mobile	RUO	WBA	WLR	MVNO	nat. roaming	LRIC fixed	LRIC mobile	tariff rebal.
2005	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	-	-	-	-	2007	-	-	-	-	2008	-	-	-	-
2010	X	X	X	X	✓	X	X	X	X	✓	X	X	X	X

6. Market structure

Kosovo has the lowest fixed lines penetration in the region and fixed voice telephony is still dominated by the incumbent PTK. Internet and broadband access markets are much more competitive, with more than 75% of market share held by alternative cable operators. There are two mobile network operators and two MVNOs, but none of them can offer UMTS.

	Fixed lines penetration	Mobile penetration	Broadband penetration	Electronic communications as % of GDP
2005	5%	16%	0.1%	6.8%
2010	4%	73%	6%	6.1%

7. Outlook

Kosovo has been slow in adopting legislation and implementing regulatory obligations. A new law for transposing the EU 2003 and 2009 regulatory frameworks is being drafted.

Administrative capacities both in TRA and the ministry need to be strengthened in order to fully align legislation with the acquis, introduce competitive safeguards and enforce regulatory decisions.

IV. REGULATORY RISK ASSESSMENT

This chapter presents a regulatory risk assessment of the eight countries from a potential investor's perspective. In particular, it analyses the impact of national regulatory frameworks and policies on investment in various segments of electronic communications market.

In many instances, if not appropriately mitigated, regulatory risk has the potential to seriously harm the financial viability of an investment in electronic communications. The degree of risk varies from country to country and not all regulatory risks and their specific financial impact on an investment valuation can be easily quantified. In addition, there are many risks that cannot be exclusively classified as regulatory as they could be a combination of legal and financial risks, amongst others. For instance, if the regulatory environment is not complemented by a robust legal or judicial framework, the regulatory efficacy is compromised.

The framework of analysis for this chapter focuses on those risks that are considered to be primarily regulatory. It reviews the interrelations between network investment and regulatory environment in each country. This assessment identifies the main regulatory concerns which, if removed, might contribute to lower the perception of "regulatory risk" from an investor perspective.

Every potential investor in the electronic communications market may have a somewhat different view as to how regulatory risks should be prioritized, but the following is intended as a summary of the principal regulatory concerns that would be foremost in any investor's due diligence list. The risks that are primarily regulatory have been structured around five broad assessment areas listed below:

- Institutional and legal framework;
- Entry conditions for services requiring wired network infrastructure;
- Entry conditions for services requiring spectrum resources;
- Fees and taxation; and
- Information society.

In each area a set of key factors are further analysed which, from the investor's perspective, could help to assess regulatory risk and market entry conditions.

A. Assessment areas

1. Institutional and legal framework

The assessment of this area includes factors relating to the level of predictability of the regulatory and legal environment, as well as to the NRA transparency and independence. For each country, the following factors have been assessed:

- if the country's legislation is based on the principles of the EU 2003 acquis and whether there are plans to implement 2009 acquis;
- if there is a clear division of tasks between the NRA and the government bodies and if certain regulatory decisions require approval by the government;
- the existence of effective appeal procedures by an independent appeal body;
- if competitive practices and enforcement processes are clearly specified in the law, and if cooperation exists with the competition authority;
- the level of control, by the state, or special rights over the incumbent operator;
- if the NRA has an independent budget in practice and sufficient human resources;
- if there are clear and transparent procedures for the appointment/dismissal of the NRA management and if such rules are implemented in practice; and
- whether the NRA always conducts public consultations before taking decisions and if its decisions are published.

2. Market entry conditions for services using wired infrastructure

The assessment addresses the entry conditions in the main fixed networks and fixed broadband services markets, in particular with respect to the authorisation regime and infrastructure deployment, as well as the availability of key competitive safeguards enabling market entry. In particular, the following factors are analysed:

- whether a general authorisation regime is implemented; and
- if not, whether licences are technology neutral;
- if tariff rebalancing has been completed;
- if there is a reasonable timeframe to obtain rights of way, and if passive infrastructure sharing is mandated;
- if fixed number portability has been implemented;
- the effectiveness and transparency of interconnection regime;
- if wholesale offers are offered by the incumbent (CS/CPS; LLU, WBA, WLR); and
- if triple play offers are allowed and available.

3. Market entry conditions for services using frequency spectrum

The assessment in this area relates to entry conditions in the mobile networks and services market and also services utilising fixed wireless technologies. It analyses the following factors:

- licensing requirements and whether spectrum licences are technology neutral;
- refarming of 900-1800 MHz spectrum;
- whether spectrum trading is allowed;
- for mobile services, if mobile access and call origination are mandated, and whether there are any MVNOs or mobile service providers currently operating in the country;
- for mobile services, if national roaming is mandated and implemented in practice;
- interconnection regime for mobile networks and fixed wireless networks (pricing, transparency); and
- if mobile number portability is currently available.

4. Fees and taxation

This area investigates the situation in each country with respect to the imposition of special telecommunications taxes or high administrative fees in the telecommunications sector. In particular:

- if special telecommunications taxes are imposed or foreseen in the near future;
- whether operators are required to pay contributions to the Universal Service fund;
- the level of administrative fees; and
- if reliable and transparent mechanisms are in place for the funding of the NRA.

5. Information society

This section analyses the “readiness” of the countries to boost demand and supply of information society services. In particular, the following aspects are assessed:

- the level of protection against cybercrime;
- authorisation requirements to offer information society services;
- legal framework for the use of electronic contracts and electronic signatures;
- restrictions to the freedom of expression and information;

- the existence of providers of qualified certificates in the country;
- if domain registration has been liberalised (not centralised); and
- legal framework for the protection of personal data has been implemented.

B. Methodology

Each country is analysed by answering to the questions included in the scorecard. Questions are formulated in a way that allows a clear “yes” or “no” answers only. Each answer is assigned points: the higher the total score made in each section, the higher the risk perceived for that specific area in the assessed country.

The results of the assessment are presented into four possible grades of risk perception, based on the total scores achieved in each section: low risk, medium-low risk; medium-high risk and high risk.

The results of our assessment are presented for each country by the use of colours:

Regulatory Risk Index key:

<20%	no or very low risk perception
21-35%	moderate regulatory risk perception
36%-60%	medium to relatively high risk perception
>60%	high risk perception

All questions included in the scorecard as well as the scores assigned for each country are reported in Annex I of this report.

This assessment has been complemented with interviews with industry actors, established market players as well as new entrant fixed and mobile operators. The list of interviewed entities is provided in Annex II of this report.

C. Assessment results

The regulatory risk perception for the electronic communications sector varies considerably across the monitored countries. The summary assessment results are presented below.

	HR	MK	TR	AL	BA	ME	RS	XK
Institutional and legal framework								
Market entry - wired								
Market entry - wireless								
Fees and taxation								
Information society								

Table 5 – Summary of regulatory risk assessment

Two of the EU candidate countries – namely Croatia and FYROM – show what could typically be defined as an investment-friendly environment. Predictability, transparency in the application of the regulatory framework, sufficient resources and independence of the regulatory authority, availability of the key competitive safeguards are among the factors which contribute to this profiling.

Overall, the regulatory environment seems to be conducive to private investment, although a few actions might be still required to further minimise risk perception, for instance with respect to administrative fees and taxation.

Two other candidate countries – Turkey and Montenegro – show a higher level of risk perception compared with Croatia and FYROM. In Turkey entry barriers reduced in the fixed market, while in the mobile market there are still concerns related to spectrum licensing for mobile broadband. The high level of taxation and high administrative fees in the telecommunications sector also present an element of risk in Turkey. In Montenegro, both fixed and mobile sectors are characterised by a higher risk perception than Turkey, mainly due to slow implementation of competitive safeguards.

The four potential candidates to EU accession, namely Albania, Bosnia & Herzegovina, Serbia and Kosovo show higher levels of risk perception.

Serbia and Kosovo are the only countries showing a high risk perception both in the mobile and fixed sectors. A high risk perception is also observed in the mobile market of Bosnia & Herzegovina and Montenegro. In terms of fees and taxation, Albania and Serbia – along with Turkey – are perceived as the most risky countries in the region.

The institutional and legal environment requires considerable improvement in all countries, with exception of Croatia and to some extent, FYROM.

All countries show areas which require improvement. If effectively addressed, those areas of concern might mitigate regulatory risk perception and improve the investment climate from a potential new entrant’s perspective.

The specific areas of improvement for each country are summarised in the next section.

D. Country risk assessment

1. Croatia

Summary assessment – overall ranking: **low risk**

The regulatory environment of Croatia presents a low risk profile with stable institutional framework, legislation aligned with the EU 2003 acquis and progressive plans to implement the 2009 acquis. The electronic communications market presents an attractive market entry potential, especially the fixed telephony and broadband market, where most of the key competitive safeguards are in place.

In terms of infrastructure development and competitive conditions, the electronic communications market in Croatia demonstrates a level of development comparable to many of the EU countries. Fixed telephony penetration is at levels comparable with the EU average, while mobile penetration is even above.

In spite of the high growth during the last few years, fixed broadband penetration is still below the EU average. The incumbent’s market share is still considerably high if compared with the SEE and the EU average levels.

	Croatia (%)	SEE-8 average	EU-27 average	Deviation from SEE	Deviation from EU
Fixed penetration	38.5	24.5	40	57%	-4%
Mobile penetration	136	94.7	122	44%	11%
Fixed broadband penetration	16.1	9.4	24.8	71%	-35%
Mobile broadband penetration	6.1	5.4	6.1	13%	0%
Incumbent market share - voice	79.5	90	74.4	-12%	7%
Incumbent market share - BB	81	61	45	33%	80%
Largest MNO market share	47.4	43.3	44	9%	8%
	risk perception	Areas of possible improvement			
Institutional and legal framework		<ul style="list-style-type: none"> Slow appeal procedures 			
Market entry - wired		<ul style="list-style-type: none"> WLR: currently not available 			
Market entry - wireless		<ul style="list-style-type: none"> Spectrum trading not allowed No MVNOs or ESPs 			
Fees and taxation		<ul style="list-style-type: none"> Special mobile telecommunications tax 			
Information society		-			

Table 6 – Regulatory risk assessment of Croatia

2. The Former Yugoslav Republic of Macedonia (FYROM)

Summary assessment – overall ranking: **low risk**

The regulatory environment of FYROM presents a relatively low risk profile. Considerable progress has been achieved in terms of implementing competitive safeguards, both in the fixed and mobile sectors. However, fixed telephony penetration is relatively low, at levels below the SEE average, and considerably below the EU average.

Fixed voice telephony revenues are declining as a result of increasing competition and mobile-to-fixed substitution. Alternative fixed operators have reached almost 20% market share, from 1% in 2008.

Broadband penetration remains below the country's potential, despite the significant growth between 2005 and 2010. In terms of competitive conditions, the incumbent's market share in the broadband market is below the SEE average as a result of strong infrastructure-based competition with significant presence of cable and FWA networks.

Mobile market remains highly concentrated, with the largest operator controlling over 61%. At the same time, among the eight countries monitored, FYROM is the only one where the NRA has imposed MVNO access obligations on the largest mobile operator and the reference offer has been recently published.

	FYROM (%)	SEE-8 average	EU-27 average	Deviation from SEE	Deviation from EU
Fixed penetration	20.1	24.5	40	-18%	-50%
Mobile penetration	95	94.7	122	0.3%	-22%
Fixed broadband penetration	11.1	9.4	24.8	18%	-55%
Mobile broadband penetration	0.5	5.4	6.1	-91%	-92%
Incumbent market share - voice	81	90	74.4	-10%	9%
Incumbent market share - BB	51.7	61	45	-15%	15%
Largest MNO market share	61.2	43.3	44	41%	39%
	risk perception	Areas of possible improvement			
Institutional and legal framework		<ul style="list-style-type: none"> State control over incumbent (golden share) Alignment with EU acquis 2009 not started Not sufficient administrative capacity at the ministry 			
Market entry - wired		<ul style="list-style-type: none"> Tariff rebalancing to be completed 			
Market entry - wireless		<ul style="list-style-type: none"> No MVNOs or ESPs Spectrum trading not allowed 			
Fees and taxation		<ul style="list-style-type: none"> High spectrum fees 			
Information society		<ul style="list-style-type: none"> No competition between domain registrars 			

Table 7 – Regulatory risk assessment of FYROM

3. Turkey

Summary assessment - overall ranking: **medium risk**

In Turkey regulatory risk is assessed as somewhat higher than in Croatia and FYROM and medium in comparison with the remaining countries.

Considerable progress has been achieved over the last few years in terms of alignment with the EU *acquis* and of introduction of competitive safeguards. However, the Turkish regulatory environment still presents an area where improvements are still necessary to mitigate the risk and to reap the full investment potential.

The penetration of fixed, mobile and broadband services is considerably below the EU average. Fixed voice telephony has been liberalised only recently. Nevertheless, the market shows dynamism, with alternative operators reaching 14% market share in revenue.

Mobile market is also very dynamic. On the regulatory side, mobile termination rates were reduced dramatically. The introduction of number portability contributed to increasing churn, with approximately 35% of mobile numbers ported in only two years. The leading mobile operator still controls over 50% of subscribers, but market shares of the two smaller operators have been increasing during the last three years.

	Turkey (%)	SEE-8 average	EU-27 average	Deviation from SEE	Deviation from EU
Fixed penetration	23.1	24.5	40	-6%	-42%
Mobile penetration	86	94.7	122	-9%	-30%
Fixed broadband penetration	9.6	9.4	24.8	2%	-61%

	Turkey (%)	SEE-8 average	EU-27 average	Deviation from SEE	Deviation from EU
Mobile broadband penetration	1.2	5.4	6.1	-78%	-80%
Incumbent market share - voice	86	90	74.4	-4%	16%
Incumbent market share - BB	77.8	61	45	28%	73%
Largest MNO market share	55.1	43.3	44	27%	25%
	risk perception	Areas of possible improvement			
Institutional and legal framework		<ul style="list-style-type: none"> State control over incumbent (golden share) Alignment with EU acquis not completed NRA independence and transparency No cooperation with competition authority 			
Market entry - wired		<ul style="list-style-type: none"> WLR: currently not available 			
Market entry - wireless		<ul style="list-style-type: none"> Mobile licences: not technology neutral No MVNOs or ESPs No 900/1800 MHz spectrum refarming No national roaming Spectrum trading not allowed 			
Fees and taxation		<ul style="list-style-type: none"> Special telecommunications tax Universal service fund contributions High administrative fees 			
Information society		<ul style="list-style-type: none"> Services require prior authorisation Mechanism restricting freedom of expression 			

Table 8 – Regulatory risk assessment of Turkey

4. Albania

Summary assessment – overall ranking: **medium-high risk**

Albania still needs to face a number of regulatory challenges in order to improve its investment conditions.

The Albanian institutional framework for electronic communications is lacking stability and the dismissals of the NRA management that took place in 2008 and 2009 raise concerns over its effective independence.

Both fixed telephony and broadband penetration are considerably below the SEE and EU average levels, which is explained by limited competition, the lack of key competitive safeguards and complex authorisation requirements that still apply to cable networks.

The mobile market is more dynamic, as Albania is the only country in the SEE region with four licensed mobile network operators. Nevertheless, spectrum licensing is subject to political intervention. With only a single 3G mobile licence and no refarming of the 900/1800 MHz spectrum, mobile broadband services have been only recently introduced to the market.

	Albania (%)	SEE-8 average	EU-27 average	Deviation from SEE	Deviation from EU
Fixed penetration	11.4	24.5	40	-54%	-72%
Mobile penetration	113	94.7	122	19%	-7%
Fixed broadband penetration	3.5	9.4	24.8	-63%	-86%
Mobile broadband penetration	0	5.4	6.1	N/A	N/A
Incumbent market share - voice	83	90	74.4	-8%	12%
Incumbent market share - BB	63.5	61	45	4%	41%
Largest MNO market share	46.2	43.3	44	7%	5%
	risk perception	Areas of possible improvement			
Institutional and legal framework		<ul style="list-style-type: none"> Slow appeal procedures Procedure for NRA appointment/dismissal No cooperation with competition authority Not sufficient administrative capacity at the NRA, and no 			

	Albania (%)	SEE-8 average	EU-27 average	Deviation from SEE	Deviation from EU
		independent budget			
		<ul style="list-style-type: none"> Alignment with EU acquis not completed 			
Market entry - wired		<ul style="list-style-type: none"> General authorisation regime not completed (cable operators still require individual licences for voice and broadband services) Long timeframe for RoW permits Passive infrastructure sharing not mandated Tariff rebalancing not completed FNP: not available CS: not available CPS: not available LLU: not available WBA: not available WLR: not available 			
Market entry - wireless		<ul style="list-style-type: none"> Mobile licences: not technology neutral No MVNOs or ESPs No 900/1800 MHz spectrum refarming Spectrum licensing subject to political intervention MNP: not implemented No national roaming in practice Spectrum trading not allowed 			
Fees and taxation		<ul style="list-style-type: none"> Special telecommunications tax is under discussion High administrative fees 			
Information society		<ul style="list-style-type: none"> No competition between domain registrars 			

Table 9 – Regulatory risk assessment of Albania

5. Bosnia & Herzegovina

Summary assessment – overall ranking: **high risk**

The development of electronic communications and information society sector in Bosnia & Herzegovina is hampered by the lack of political consensus at the state level, which delays legislative reform and adoption of key policies, undermines regulatory certainty and predictability and weakens the functional independence of the NRA. The administrative capacity of the NRA and the responsible ministry remains weak, no decision has been taken on the appointment of the NRA management and no state-level agency responsible for information society aspects has been established.

From an investor standpoint, institutional uncertainty is combined with a number of entry barriers. In fixed networks, carrier pre-selection and fixed number portability are not available and local loop unbundling is still in emerging phase. In the provision of fixed voice telephony the three incumbent operators control about 95% of the market, both in terms of revenue and traffic volume.

The competitive situation is somewhat better in the provision of fixed broadband services, mainly due to presence of cable networks and FWA networks operating in the unlicensed WiFi spectrum bands, as no decision has been taken yet on licensing the spectrum for wireless broadband. The penetration of fixed broadband is still below the SEE and the EU average levels.

The mobile market shows a relatively well balanced competition among the three operators. However, mobile penetration levels are below the SEE and EU average. The envisaged framework for MVNOs has not yet been implemented in practice, mobile access and call origination are not regulated and no reference offers have been published by mobile operators. Implementation of mobile number portability is also delayed.

Mobile broadband is still in the emerging phase, mainly due to a late licensing of 3G spectrum. Recently the NRA, however, has allowed the three mobile operators to use the 900/1800 MHz spectrum for the provision of UMTS services.

	Bosnia & Herzegovina (%)	SEE-8 average	EU-27 average	Deviation from SEE	Deviation from EU
Fixed penetration	24.7	24.5	40	0.73%	-38%
Mobile penetration	85	94.7	122	-10%	-30%
Fixed broadband penetration	7.6	9.4	24.8	-19%	-69%
Mobile broadband penetration	0.1	5.4	6.1	-98%	-99%
Incumbent market share - voice	94.7	90	74.4	5%	27%
Incumbent market share - BB	64.3	61	45	5%	43%
Largest MNO market share	39.2	43.3	44	-9%	-11%
	risk perception	Areas of possible improvement			
Institutional and legal framework		<ul style="list-style-type: none"> • State control of two of the three incumbents • Procedure for NRA appointment/dismissal • NRA independence • Insufficient administrative capacity of the NRA and the ministry • Alignment with EU acquis not completed • NRA decisions hampered by political intervention 			
Market entry - wired		<ul style="list-style-type: none"> • General authorisations regime not implemented • Passive infrastructure sharing not mandated • Tariff rebalancing to be completed • FNP: not available • CPS: not available • LLU: mandated but still not implemented • WBA: not available • WLR: not available 			
Market entry - wireless		<ul style="list-style-type: none"> • Mobile access and origination not mandated • No MVNOs or ESPs • No new mobile licences foreseen • MNP: not implemented • No mobile RIOs • Spectrum trading not allowed 			
Fees and taxation		-			
Information society		<ul style="list-style-type: none"> • No transposition of cybercrime convention • No providers of qualified certificates • Institutional uncertainty at state level 			

Table 10 – Regulatory risk assessment of Bosnia & Herzegovina

6. Montenegro

Summary assessment – overall ranking: **medium risk**

Montenegro still requires a number of measures to mitigate its regulatory risk perception. At institutional level, the procedures for the NRA management appointment and dismissal, the regulatory oversight and appellate function of the responsible ministry over the NRA give rise to concerns over effective independence of the NRA. More transparency and clarity of roles, as well as timely implementation measures would considerably improve the overall perception of the institutional environment.

Fixed line penetration in Montenegro is above the SEE average, but below the EU average. Competition in the fixed voice telephony market is still limited, with incumbent's market shares above 95%. Fixed broadband also remains below the country potential. Narrowband still represents the majority of internet connections. The incumbent controls 95% of broadband market shares, with competitors offering alternative access mainly through FWA technology. The implementation of key competitive safeguards has been slow, including LLU, wholesale price control and number portability.

Mobile penetration is the highest in the region and also above the EU average. Concentration is also very low, with the three mobile operators holding comparable market shares and retail prices below the SEE

and EU average levels. The regulatory environment for mobile services could be further improved in terms of GSM spectrum refarming. No RIO has been published by mobile operators and regulation of MTRs has been introduced very recently.

Furthermore, the Montenegrin regulatory environment is characterised by above average administrative fees.

	Montenegro (%)	SEE-8 average	EU-27 average	Deviation from SEE	Deviation from EU
Fixed penetration	28.4	24.5	40	16%	-29%
Mobile penetration	209	94.7	122	121%	71%
Fixed broadband penetration	8.3	9.4	24.8	-12%	-67%
Mobile broadband penetration	23	5.4	6.1	326%	277%
Incumbent market share - voice	98	90	74.4	9%	32%
Incumbent market share - BB	95	61	45	56%	111%
Largest MNO market share	37.2	43.3	44	-14%	-15%
	risk perception	Areas of possible improvement			
Institutional and legal framework		<ul style="list-style-type: none"> • Procedure for NRA appointment/dismissal • Lack of independent appeal mechanism • NRA independence • Lack of administrative capacity at the ministry • Alignment with EU acquis not completed 			
Market entry - wired		<ul style="list-style-type: none"> • Passive infrastructure sharing not implemented • FNP: not available • CPS: not available • LLU: not available • WBA: not available • WLR: not available 			
Market entry - wireless		<ul style="list-style-type: none"> • Mobile licences: not technology neutral • Mobile access and origination not mandated • No MVNOs or ESPs • No 900/1800 MHz spectrum refarming • MNP: not implemented • No mobile RIOs • Spectrum trading not allowed 			
Fees and taxation		<ul style="list-style-type: none"> • High administrative fees 			
Information society		<ul style="list-style-type: none"> • No providers of qualified certificates 			

Table 11 – Regulatory risk assessment of Montenegro

7. Serbia

Summary assessment – overall ranking: **high risk**

Serbia could be seen as one of the most attractive countries in the region in terms of market and investment opportunities. Nevertheless, its regulatory and institutional environment presents a number of challenges which might discourage market entry, especially for green-field initiatives.

The law on electronic communications adopted in 2010 aims at approximating the Serbian legislation to the EU 2003 and partly the 2009 regulatory framework. However, the administrative capacities of the ministry and the NRA need to be strengthened in order to ensure its timely implementation. Delayed appointment of the NRA managing board further contributes to the institutional uncertainty.

Fixed telephony penetration in Serbia is among the highest in the monitored countries and comparable to the EU level. The market however is far from being fully liberalised and no new market entry is envisaged before 2012. Furthermore, the incentives to open the market to certain extent are offset by ongoing privatisation of the fixed incumbent operator. Only two alternative operators have been licensed so far to offer voice telephony services in competition with the incumbent. Tariff rebalancing is still in a very early phase and most of the competitive safeguards have not yet been introduced.

Broadband penetration is below the SEE and the EU average levels. However, in this market the incumbent operator is facing strong completion, in particular from cable providers. The broadband market has strong potential, and considerable take-up may be foreseen when cable operators are allowed to offer triple play services.

Mobile penetration is one of the highest in the region and also above the EU average. Concentration is quite high, with the largest operator controlling almost 60% of subscribers. The regulatory environment for mobile services could be improved in terms of, wholesale price control and effective prevention of discriminatory practices and implementation of number portability.

Mobile broadband penetration is in emerging phase and no decision has been taken on refarming of the 900/1800 MHz bands and spectrum licensing for wireless broadband.

	Serbia (%)	SEE-8 average	EU-27 average	Deviation from SEE	Deviation from EU
Fixed penetration	42.2	24.5	40	72%	6%
Mobile penetration	132	94.7	122	39%	8%
Fixed broadband penetration	8	9.4	24.8	-15	-68%
Mobile broadband penetration	1.3	5.4	6.1	-76%	-79%
Incumbent market share - voice	100	90	74.4	11%	34%
Incumbent market share - BB	29.3	61	45	-52%	-35%
Largest MNO market share	59.7	43.3	44	38%	36%
	risk perception	Areas of possible improvement			
Institutional and legal framework		<ul style="list-style-type: none"> Substantial state control over incumbent Procedure for NRA appointment/dismissal Slow appeal procedures No cooperation with competition authority Insufficient NRA administrative capacity Alignment with EU acquis not completed 			
Market entry - wired		<ul style="list-style-type: none"> Voice telephony closed to market entry until 2012 Long timeframe for RoW permits Passive infrastructure sharing not enforced on non discriminatory conditions Licences not technology neutral Tariff rebalancing to be completed FNP: not available CS: not available CPS: not available LLU: not available WLR: not available Triple play not allowed 			
Market entry - wireless		<ul style="list-style-type: none"> Mobile licences: not technology neutral Mobile access and origination not mandated No MVNOs or ESPs No 900/1800 MHz spectrum refarming MNP: not implemented No wholesale price control No mobile RIO Spectrum trading not allowed 			
Fees and taxation		<ul style="list-style-type: none"> Special telecommunications tax High administrative and spectrum fees 			
Information society		-			

Table 12 – Regulatory risk assessment of Serbia

8. Kosovo (under UN Security Council Resolution 1244)

 Summary assessment – overall ranking: **high risk**

The electronic communications and information society sector in Kosovo is currently underperforming. The country still has neither international dialling code nor top level domain name.

The institutional and legislative environment of Kosovo requires a regulatory reform to mitigate risk and foster market entry both in fixed and mobile sectors. At the same time, the administrative capacity of both the NRA and the responsible ministry is not sufficient. The NRA is lacking expertise, human resources and has no independent budget.

Considerable improvement is required to improve performance and attract investment in fixed network communications. Fixed penetration is the lowest among the countries monitored, at only 3.8%. Tariff rebalancing is far from completed, and the prices of the only commercially active competitor are considerably higher than the incumbent's. The incumbent still holds 98% of market shares for fixed voice services and its privatisation strategy was adopted at the end of 2010. Fixed broadband penetration in Kosovo is also a very low. Most broadband customers use cable modem access.

Mobile penetration is the lowest among the enlargement countries. Two licensed mobile network operators are offering their services in competition with two MVNOs. The market, however, remains concentrated with the incumbent's mobile subsidiary controlling over 65% of the market. Mobile broadband services are not available as no UMTS licences have been awarded. So far there are no plans to carry out the refarming of 900/1800 MHz bands or assign spectrum for mobile broadband.

	Kosovo (%)	SEE-8 average	EU-27 average	Deviation from SEE	Deviation from EU
Fixed penetration	3.8	24.5	40	-85%	-91%
Mobile penetration	73	94.7	122	-23%	-40%
Fixed broadband penetration	6.2	9.4	24.8	-34%	-75%
Mobile broadband penetration	0	5.1	6.4	N/A	N/A
Incumbent market share - voice	98	90	74.4	9%	32%
Incumbent market share - BB	25.3	61	45	-58%	-44%
Largest MNO market share	65.5	43.3	44	51%	49%
	risk perception	Areas of possible improvement			
Institutional and legal framework		<ul style="list-style-type: none"> State control over incumbent Insufficient administrative capacity of the NRA and the ministry NRA independence Slow appeal procedures No cooperation with competition authority Alignment with EU acquis not completed 			
Market entry - wired		<ul style="list-style-type: none"> General authorisations regime not fully implemented Passive infrastructure sharing not enforced on non discriminatory conditions Tariff rebalancing to be completed FNP: not available CS: not available CPS: not available LLU: not available WLR: not available 			
Market entry - wireless		<ul style="list-style-type: none"> Mobile licences: not technology neutral Mobile access and originated not mandated No 900-1800 MHz spectrum refarming MNP: not implemented No wholesale price control No mobile RIO No national roaming Spectrum trading not allowed 			

Enlargement Countries Monitoring Final Study Report – March 2011

	Kosovo (%)	SEE-8 average	EU-27 average	Deviation from SEE	Deviation from EU
Fees and taxation				-	
Information society					<ul style="list-style-type: none"> • No providers of qualified certificates • No top level domain name

Table 13 – Regulatory risk assessment of Kosovo

V. CONCLUSIONS AND RECOMMENDATIONS

A. Study conclusions

The extent of the changes to legislation and consequently to regulatory systems observed during the period from 2005 to 2010 in the electronic communications and the information society sectors of the eight South East European Enlargement countries has been considerable.

For most of the monitored countries this period has been characterised by the transition from state-controlled monopolies to more privately-led and increasingly competitive market structures. The incumbent operators have been subsequently privatised in Croatia, FYROM, Montenegro, Turkey, Albania and the Republika Srpska of Bosnia & Herzegovina. Further privatisation processes are currently underway in Serbia and in Kosovo.

In parallel with the privatisation of the incumbent operators, fixed telecommunications networks and services have been liberalised in most of the countries – typically, data before voice services and domestic services before international gateways. Entry barriers have been further reduced with the introduction of general authorisation regime as the countries have progressively aligned their legislation with the principles of the EU regulatory framework. Individual licensing regimes, however, remain in place in Bosnia & Herzegovina and in Kosovo, while in Serbia fixed voice telephony networks will remain closed to new entry until 2012.

Fixed voice telephony services, however, continue to be dominated by the incumbent operators. Despite formal liberalisation, competitive market entry remains problematic in most of the countries in the absence of tariff rebalancing, fixed number portability and local loop unbundling. Only Croatia, FYROM and Turkey have so far advanced in implementing the key competitive safeguards.

Fixed broadband markets are also dominated by the incumbents, in particular in the three countries where xDSL is the main access technology: Croatia, Turkey and Montenegro. In other countries, where competitors are using alternative infrastructures – primarily, cable and fixed wireless access networks – the market shares are more equally balanced.

Mobile communications is de facto the only sector where competition has been effectively implemented. During the monitoring period mobile penetration has continued to grow across all countries, reaching and sometimes surpassing the EU average level. Nevertheless, most of the national mobile markets remain highly concentrated with two established players typically controlling over 80% of the market. Complex and lengthy procedures for granting rights of way and construction permits by local authorities remain a major obstacle for mobile new entrants rolling out their networks. Mobile number portability is only available in Croatia, FYROM and Turkey.

Wireless broadband services are still in emerging phase. With the exception of Croatia, Montenegro and Serbia, the deployment of 3G mobile broadband networks has been delayed by late UMTS spectrum awards, sometimes accompanied by political intervention in the licensing process. Only Croatia, FYROM and Bosnia & Herzegovina have allowed mobile broadband in the GSM spectrum bands. Also, only three countries – Croatia, FYROM and Montenegro – have assigned the 3.5 GHz spectrum for wireless broadband.

The general conclusion of the regulatory risk assessment is that the most important steps to be taken by the monitored countries are to ensure stable and predictable institutional environment, to achieve independent sector regulation and to speed up implementation of competitive safeguards. Other factors such as authorisation regime, access to rights of way and spectrum liberalisation for wireless broadband are important steps, but they appear secondary when considering overall regulatory performance.

The following recommendations concerning the key elements of the required regulatory reform can be drawn from the study conclusions, in order of priority:

1. Regulatory independence

First and foremost, a legal framework must include the objective to establish a regulatory authority that is independent from the operators and reasonably independent from political pressure. The degree of regulatory independence is affecting views of regulatory risk by market players and potential investors. Formally, all of the monitored countries have legal frameworks in place that establish independent regulators. However, such institutions have existed in these countries for a relatively short period of time. Experience in the EU member states has demonstrated that legislation only provides for the possibility of independence, but it cannot be immediately created.

Independence is earned over time by the actions of the regulator and the reactions of the government, the incumbent and the appeal bodies. The regulator has to demonstrate that its decisions are fair, transparent, and non-discriminatory after taking into account the market conditions and consulting with the stakeholders. Only as all parties come to understand and trust the new structure does regulation acquire the independence that investors equate with assurance of objective decisions based on facts and evidence. So far, only Croatia and to some extent FYROM have established institutional frameworks that ensure sufficient degree of regulatory independence and adequate administrative capacity of the regulator.

2. Competitive safeguards

Competitive safeguards are specific measures intended to protect new entrants against the anti-competitive practices of the established operator(s) with significant market power and to facilitate the ability of end-users to switch to new service providers. Only Croatia, FYROM and Turkey have implemented key competitive safeguards in both fixed and mobile networks. In all other five countries most of the competitive safeguards – such as tariff rebalancing, number portability, regulated interconnection and wholesale access offers – still need to be implemented. The implementation of competitive safeguards is often linked to the market analyses process, which is dependent upon the capacity and expertise of the authorities.

3. Spectrum liberalisation

Wireless access technologies can constitute efficient and cost-effective solution for providing broadband services in uncovered or underserved areas, in particular in the monitored countries where the penetration of traditional fixed networks and other wired infrastructures is very low. However, in order to reap the full benefits of wireless broadband, most of the monitored countries need to ensure availability of spectrum for wireless broadband and to carry out spectrum assignments subject to transparent and non-discriminatory procedures. The main challenge is to ensure that sufficient spectrum is made available to mobile broadband services to meet rapidly increasingly mobile data traffic volumes and bridge 'digital divide'. Assignment of spectrum for wireless broadband services in the 2.0 GHz, 2.6 GHz and 3.5 GHz bands, refarming of GSM spectrum in the 900 and 1800 MHz bands and opening the digital dividend spectrum in the 800 MHz bands are key elements in this process. In

4. Authorisation regime

Only five of the monitored countries – Croatia, FYROM, Turkey, Montenegro and Albania – have implemented general authorisation regime for electronic communications services that do not require the use of limited spectrum resources. In Bosnia & Herzegovina and in Kosovo, the provision of electronic communications services remains subject to individual licences that sometimes can be seen as an entry barrier by potential new entrants. In Serbia, the provision of fixed voice telephony networks is closed to new entry until 2012, which also restricts the provision of triple play services by the existing cable providers and competitive ISPs.

5. Rights of way

In many of the monitored countries lengthy, non-transparent and sometimes discriminatory procedures for issuing rights of way and construction permits constitute a significant entry barrier for new entrants deploying wireless as well as wired networks. In addition to streamlining the administrative procedures for granting rights of way, other measures should be considered, for example, aimed at facilitating infrastructure sharing with the established market players and other industry sectors.

B. Digital Agenda challenges

The European Union is now considering the topics covered by this project and this final report in the wider context of the Digital Agenda for Europe¹⁶, which constitutes the strategy for the entire ICT sector until 2020. The overall aim of the Digital Agenda is to deliver sustainable economic and social benefits from a digital single market based on fast and ultra fast internet and interoperable applications.¹⁷ As the monitored countries are seen as potential members of the European Union, either in the short or medium

¹⁶ See http://ec.europa.eu/information_society/digital-agenda/index_en.htm and in particular the Communication COM(2010) 245.

¹⁷ See the introduction of Communication COM(2010) 245.

term, the ambitious goals of the Digital Agenda present significant challenges that need to be tackled in order to bring the enlargement countries up to speed with the EU member states.

First and foremost, the enlargement countries need to align their policies for the ICT sector with the priorities of the Digital Agenda. The assessment carried out during this monitoring project has revealed significant gaps in policy making in the monitored countries. The main challenge would be to create a policy environment which encourages high-risk investments in fast and ultra-fast networks while the countries are still recovering from the economic crisis.

In particular, the lack of relevant policy documents is apparent in Bosnia & Herzegovina, Montenegro and Kosovo that have no broadband strategies. Furthermore, the policy making and legislative processes in some countries remain slow and inefficient. In particular, this has been demonstrated in Bosnia & Herzegovina where the telecommunications sector policy for 2008-2012 was approved in December 2008, with a one-year delay and some of its targets became outdated already by the time of its adoption. Serbia adopted new strategies for electronic communications and information society sectors in late 2010 but is lacking a concrete action plan to achieve the specific targets. Croatia is currently updating its broadband strategy that will replace the previous document that expired in 2010. In FYROM and Turkey, some of the key policy documents are about five years old.

Further alignment with the Digital Agenda for Europe would require sufficient resources at government level, although many action areas of the Digital Agenda do not directly lead to new legislation or regulatory decisions, but are based on soft-law, policy making and enhancing cross-border cooperation. The establishment of independent regulators also envisages a new role for the government, which should focus on policy-making and preparing legislation. In most countries, governments still show a tendency of intervening in individual regulatory decisions that should be the sole competence of the independent regulator. On the other hand, the ministries responsible for policy making are often lacking administrative capacities to assume their new roles and depend on support by external consultants. Only Croatia and Turkey have sufficient administrative resources at government level, although in Turkey the distribution of competencies over several government bodies seems to slow some developments. Several countries have re-organised their governments and established a single ministry that is competent for all information society matters. This is a positive development, but it remains to be seen if the new organisation is followed by recruitment of qualified staff.

The Digital Agenda defines broadband targets to be reached by 2013 and 2020:

- By 2013, 100% of EU citizens should have access to basic broadband. Many of the EU member states are already close to reaching this target. Reaching a similar target in the monitored countries will require significant investments, as the average broadband penetration rate reaching 9.4% of the population in 2010 remains significantly below the EU-27, broadband offers are often only available in limited areas and competition is still at a very early stage.
- By 2020, 100% of EU citizens should have access to fast broadband with at least 30 Mbps, and 50% or households should have subscribed to ultra-fast broadband above 100 Mbps. With regard to this target, the need for investment in the EU member states and the monitored countries is not so different. Even in many of the advanced EU economies, broadband with 100 Mbps is only available as a few pilot projects or in a few cities. The main difference between EU member states and monitored countries with regard to fast and ultra-fast broadband are the different competitive conditions as outlined above, in particular the absence of competitive safeguards and difficulties to acquire spectrum usage rights as well as rights of way and construction permits. A further step would be adjusting competitive safeguards to the NGA environment along with promotion of co-investment and risk sharing mechanisms.

Another challenge presented by the Digital Agenda is related to the integration of the monitored countries into a single European digital market. In this context, the specific priority areas outlined by the Digital Agenda would require joint efforts, both by the EU and the enlargement countries as they progress on their road towards the EU membership. In particular, this applies to the development of a single market for online content, the enforcement of intellectual property rights, the implementation of the regulatory framework facilitating online and cross-border transactions and the development of a “*durable solution*” for international voice and data roaming.

VI. ANNEX I – REGULATORY RISK ASSESSMENT SCORECARD

Regulatory Risk Index key:	
<20%	low
21-35%	medium
36%-60%	high
>60%	very high

Please insert "y" for yes, or "n" for no	HR	MK	TR	AL	BA	ME	RS	XK
1. Institutional and legal framework								
always conducts public consultations before decisions?	y	y	y	y	y	y	y	y
are decisions published?	y	y	n	y	y	y	y	y
No or little state control over incumbent operator (<50% and/or no special rights)	y	n	n	y	n	y	n	n
clear / transparent procedure for appointment and dismissal of director and board currently implemented?	y	y	y	n	n	n	n	y
is there specific and well functioning NRA dispute resolution process and timeframe	y	y	y	n	y	y	y	y
clear and well functioning appeal procedures by independent appeal body?	n	y	y	n	n	n	n	n
clear competitive practices and enforcement processes?	y	y	n	y	y	y	n	n
cooperation with competition authority?	y	y	n	n	n	n	n	n
Independent budget in practice?	y	y	y	n	n	y	y	n
sufficient human resources (regulatory experts) - NRA and Ministry	y	n	y	n	n	n	n	n
full alignment with EU legislation (the country has a law according to the 2003 acquis and has schedule to implement 2009 acquis)	y	n	n	n	n	n	n	n
clear division of tasks with Ministry (government)/no NRA decisions require government approval?	y	y	n	y	n	n	y	y
	8.3	25.0	50.0	58.3	66.7	50.0	58.3	58.3

	HR	MK	TR	AL	BA	ME	RS	XK
2. market entry - wired networks								
General authorisation regime fully implemented?	y	y	y	n	n	y	n	n
Reasonable timeframe for RoW permits?	y	y	y	n	y	y	n	y
Is passive infrastructure sharing mandated ?	y	n	y	n	n	n	n	n
Are licences technology neutral?	y	y	y	y	y	y	n	y
tariff rebalancing completed?	n	n	n	n	n	n	n	n
FNP implemented?	y	y	y	n	n	n	n	n
CS available?	y	y	y	n	y	y	n	n
CPS available?	y	y	y	n	n	n	n	n
RIO published?	y	y	y	y	y	y	y	y
Fixed interconnection: price control?	y	y	y	y	y	y	y	y
RUO published	y	y	y	n	y	n	n	n
LLU: price control?	y	y	y	n	n	n	y	n
LLU implemented in practice? (significant amount of unbundled lines)	y	y	y	n	n	n	n	n
regulated WBA available?	y	y	y	n	n	n	n	n
WBA used in practice?	y	y	y	n	n	n	y	n
Availability of WLR?	n	y	n	n	n	n	n	n
Is access to international gateways included in the standard interconnection regime?	y	y	y	y	y	y	y	y
Triple play allowed?	y	y	y	y	y	y	n	y
	11.1	11.1	11.1	72.2	55.6	55.6	72.2	66.7
3. market entry - wireless networks								
Are mobile licenses technology-neutral?	y	y	n	n	n	n	n	n
Mobile access and call origination mandated?	n	y	y	y	n	n	n	n
MVNO or ESP operational?	n	n	n	n	n	n	n	y
900-1800 MHz spectrum refarming ?	y	y	n	n	y	n	n	n
Spectrum always licensed via competitive methods?	y	y	y	n	n	n	n	n
MNP implemented?	y	y	y	n	n	n	n	n
Mobile interconnection: price control?	y	y	y	y	n	y	n	n
Mobile RIO available?	y	y	y	y	n	n	n	n
National roaming implemented in practice?	y	y	n	n	y	n	y	n
Is spectrum trading allowed?	n	n	n	n	n	n	n	n
	30.0	20.0	50.0	70.0	80.0	90.0	90.0	90.0

VII. ANNEX II – LIST OF INDUSTRY CONTACTS (CONFIDENTIAL)

A. Albania

Type of organisation	Name of organisation	Contact persons
Incumbent fixed	Albtelecom Myslym Shyri 42, Tirana, Albania Tel +355 4232169 Fax: +355 4233323 Email: info@albtelecom.al , www.albtelecom.al	Mr Ilir Zela Director Regulation and Competition Directorate Tel : +355 42 38 7231 Email: ilir.zela@albtelecom.al
Mobile operator	Albanian Mobile Communications (AMC) Gjergj Legisi Str., Laprakë Tirana, Albania Tel: +355 4 275000 Email: contact_us@amc.al www.amc.al	
Mobile operator	Vodafone Blv. Bajram Curri, European Trade Center, Tirana, Albania Tel: +355 4 283100 Email: info.al@vodafone.com www.vodafone.al	
Alternative fixed operator and ISP	Primo Rr. Donika Kastrioti, #4 Tirana, Albania Tel: +355 44 00123 www.primo.al	

B. Bosnia & Herzegovina

Type of organisation	Name of organisation	Contact persons
Incumbent fixed	Telekom Srpske Vuka Karadzica 6, Banja Luka, Republic of Srpska www.telekomsrpske.com	Mr Predrag Čulibrk, CEO Tel.: +387 51 240 100 Email: ts.office@mtel.ba
Incumbent fixed	HT Mostar Kneza Branimira bb Mostar, B&H www.ht.ba	Mr. Stipe Prlić, CEO Tel. +387 36 884 202 Fax. +387 36 880 001
Incumbent fixed	BH Telecom Obala Kulina bana 8 Sarajevo, B&H www.bhtelecom.ba	Mr. Nedžad Residbegovic, CEO Tel. +387 33 232 651 Fax: + 387 33 221 111
Alternative fixed operator	Aneks Majke Jugovića 25 Banja Luka, Republic of Srpska Email: info@blic.net	

C. Croatia

Type of organisation	Name of organisation	Contact persons
Incumbent fixed and mobile operator	HT – Hrvatske telekomunikacije d.d. (with T-Mobile) Address: Savska 32, 10000 Zagreb, Croatia www.t-ht.hr	Mr Ivica Mudrinić, CEO Tel. + 385 1 4911 000

Type of organisation	Name of organisation	Contact persons
Mobile operator	VIPnet GSM d.o.o. Address: Vrtni put 1, 10000 Zagreb, Croatia www.vipnet.hr	Mr Mladen Pejkovic, CEO Tel: + 385 1 4691 091 Fax: + 385 1 4691 099
Mobile operator	Tele2 d.o.o. Ulica grada Vukovara 269D, 10000 Zagreb, Croatia www.tele2.hr	Mr Julian Ogrin, CEO Tel. +385 1 6328 300 Fax. +385 1 6328 301
Alternative fixed operator	OT-Optima telekom d.o.o. Bani 75a, Buzin, 10010 Zagreb, Croatia www.optima.hr	Mr Matija Martić, CEO Tel. +385-1-5492-699 Fax. +385-1-5492-019
Alternative fixed operator	Portus d.o.o. Planinska 2, 10000 Zagreb, Croatia www.h-1.hr	Mr Kristian Ćurković, CEO Tel. +385 1 555 0010 Fax. +385 1 555 0059
Cable TV operator	B.net Hrvatska d.o.o. Avenija Dubrovnik 16, 10000 Zagreb, Croatia www.bnet.hr	Mr Boris Stipetić, Regulatory Manager Tel. +385 1 6566 160

D. Montenegro

Type of organisation	Name of organisation	Contact persons
Incumbent fixed and mobile operator	Crnogorski Telekom (with T-Mobile) Moskovska 29 Podgorica, Montenegro www.telekom-cg.com	Mr Daniel Szasz, CEO Tel. + 382 81 433 433 Email: daniel.szasz@telekom-cg.com
Mobile operator	ProMonte Bulevar Džordža Vašingtona 83 Podgorica, Montenegro www.telenor.me	
Mobile operator	M-Tel Kralja Nikole 27a, Podgorica, Montenegro www.mtel-cg.com	Mr Ljubomir Rajšić, CEO
ISP	Mont Sky Save Kovacevica 123, Podgorica, Montenegro www.montsky.net/	Mr Slavko Sekulovic, CEO Tel: + 382 81 23 50 00

E. Serbia

Type of organisation	Name of organisation	Contact persons
Incumbent fixed and mobile operator	Telecom Serbia Takovska 2 Belgrade, Serbia www.telekom.rs	Mr Branko Radujko General Manager Tel: +381 11 3032 030
Mobile operator and alternative fixed operator	Telenor Omladinskih brigada 90 Belgrade, Serbia www.telenor.rs	Mr Kjell-Morten Johnsen, CEO +381 62 100 0001
Mobile operator	VIP Mobile Omladinskih brigada 21 Belgrade, Serbia www.vipmobile.rs	Mr Tanasis Kacirumpas, Chairman Mr Darko Parun, CTO Tel: +381 11 2287 591 d.parun@vipmobile.rs

Type of organisation	Name of organisation	Contact persons
Alternative fixed operator	Orion telekom (Media Works)	Mr David Schoch, Chairman Greenhouse Telecommunications Holdings Tel: +381 11 222 8333 Email: david.schoch@greenhouse-telecommunications.com
ISP	Eunet Dubrovačka 35, www.eunet.rs	Mrs Mirjana Rosić General Manager Tel: +381 11 3305678 Email: mira@eunet.rs
ISP	Veratnet 19, Alekse Nenadovica street, Belgrade, Serbia www.verat.net	Mr Milomir Jevtić Executive Director Phone: +381 11 24 33 333 Fax: +381 11 34 42 504 Mobile: +381 63 270 545 mjevtic@office.verat.net
Cable operator	SBB (Serbia Broadband) Kralja Petra 45	Mr Dragan Solak, General Manager Mr Vladan Aleksic, Director Vladan.aleksic@sbb.co.yu
Cable operator	Pogled Medianis Vojvode Misica 58/2 Nis	Mr Sasa Stojkovic Director Tel: +381 18 510920 ssale@medianis.net
Cable operator	Radijus Vektor Milentija Popovica 6, Belgrade www.vektor.net	vector@vektor.net
Cable operator	Absolut OK	Mr Bogoljub Pjescic bogi@apsolut.net

F. Kosovo

Type of organisation	Name of organisation	Contact persons
Incumbent fixed and mobile operator	PTK (with Vala) Dardania n.n Prishtina, Kosovo Email: info@telekomi.net	Mr Shyqyri Haxha, CEO
Mobile, ISP, and second fixed operator	IPKOnet Lagjja Ulpiana, Rruga "Zija Shemsiu", Nr. 34, Prishtina, Kosovo Tel: +386 43 700 700 Email: info@ipko.com	Mr. Branko Babic, CEO
ISP	Kujtesa Str. Pashko Vasa, 18 Pristina, Kosovo Email: office@kujtesa.com www.kujtesa.com	Mr. Florent Perjuci, CTO Tel: +377 44 111 247 Email: fperjuci@kujtesa.com

G. The former Yugoslav Republic of Macedonia

Type of organisation	Name of organisation	Contact persons
Incumbent fixed and mobile operator	Makedonski Telekom Orce Nikolov bb Skopje, Macedonia www.mt.com.mk	Director for regulation policy Mr Dejan Siljanovski + 389 200 594 e-mail: Dejan.Siljanovski@mt.com.mk
Mobile operator, alternative fixed operator and ISP	One bul. Kuzman Josifovski Pitu 15 Skopje, Macedonia www.one.mk	Senior Regulatory Advisor, Legal and Regulatory Department Mr Dragan Cepujnoski, Tel.: +389 2 2441050, dragan.cepujnoski@one.mk
Mobile operator	VIP Operator Vasil Adzilarski bb Skopje, Macedonia www.vipoperator.mk	Mr Vladimir Nikolic, Head of Regulatory Affairs Mob: +389 77 77 00 50 Email: v.nikolic@vipoperator.mk

H. Turkey

Type of organisation	Name of organisation	Contact persons
Incumbent fixed	Turk Telekom www.turktelekom.com.tr	Mr Tolga Cem Seyfeli Director of Regulation and Competition Department
Mobile operator	Turkcell www.turkcell.com.tr	Mr Tolga Çeçen Head of regulatory affairs
Mobile operator	AVEA www.avea.com.tr	Mr Ceylan Demir Regulatory manager