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STRATEGIES FOR THE PROMOTION OF BROADBAND SERVICES AND INFRASTRUCTURE: A CASE STUDY ON ALBANIA

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ITU

Strategies for the promotion of broadband services and infrastructure: a case study on Albania

September 2012

BROADBAND COMMISSION
FOR DIGITAL DEVELOPMENT

ITU

This report has been prepared for the International Telecommunication Union (ITU) by Sofie Maddens-Toscano.

We would especially like to thank for their comments: Ministry for Innovation and ICT and Electronic and Postal Communication Authority (AKEP) in Albania.

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It is part of a new series of ITU reports on broadband that are available online and free of charge at the Broadband Commission website: http://www.broadbandcommission.org/ and at the ITU Universe of Broadband portal: www.itu.int/broadband.

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Preface

The past twenty years have been an extraordinary time for the development of information and communication technologies (ICTs) – with the 'mobile miracle', we have brought the benefits of ICTs within reach of virtually all the world's people. Through its technical standardization and spectrum management work, ITU has been at the forefront of technological change and is today committed to continue to drive positive change in the ICT sector and beyond. It is now time to make the next step, and to ensure that everyone – wherever they live, and whatever their circumstances – has access to the benefits of broadband. This is not just about delivering connectivity for connectivity's sake, or even about giving people access to the undoubted benefits of social communications. It is about leveraging the power of broadband technologies, and especially mobile technologies, to make the world a better place.

In 2010, ITU, in conjunction with UNESCO, launched the Broadband Commission for Digital Development to boost the importance of broadband on the international policy agenda. The Commission believes that expanding broadband access in every country is key to accelerating progress towards these goals by the target date of 2015. The Commission is co-chaired by President Paul Kagame of Rwanda and Carlos Slim Helú, President of the Carlos Slim Foundation. Some 60 Broadband Commissioners representing governments, industry, academia and international agencies contribute the benefit of their insights and experience to the Commission's work. At the Broadband Leadership Summit held in October 2011 in Geneva, the Broadband Commission recognized broadband as a critical modern infrastructure contributing to economic growth and established four new targets for making broadband policy universal and for boosting affordability and broadband uptake. Innovative new models that promote competition, innovation and market growth are now needed to make the broadband opportunity reachable for all world citizens.

At ITU, the United Nations specialized agency for ICTs and telecommunications, we are committed to playing a leading role in the development of the digital economy through extending the benefits of advances in broadband and embracing the opportunities it unleashes. ITU's three Sectors – Radiocommunication, Standardization and Development – are working together to meet these challenges and our collective success will be a key factor in ensuring the provision of equitable broadband access throughout the world. This series of ITU Broadband Reports represent one tangible contribution towards this commitment.

Dr Hamadoun I.Touré
Secretary-General, ITU

Foreword

Broadband has become a key priority of the 21st Century, and I believe its transformative power as an enabler for economic and social growth makes it an essential tool for empowering people, creating an environment that nurtures the technological and service innovation, and triggering positive change in business processes as well as in society as a whole. Increased adoption and use of broadband in the next decade and beyond will be driven by the extent to which broadband-supported services and applications are not only made available to, but are also relevant and affordable for consumers. And while the benefits of broadband-enabled future are manifest, the broadband revolution has raised up new issues and challenges.

In light of these developments, ITU has launched a new series of ITU Broadband Reports in 2012. The first reports in the series focus on cutting edge policy, regulatory and economic aspects of broadband. Other related areas and themes will be covered by subsequent reports including market analysis, broadband infrastructure and implementation, and broadband-enabled applications. In addition, a series of case studies will complement the resources already made available by ITU to all its many different types of readers, but especially to ICT regulators and policy-makers.

This new series of reports is important for a number of reasons. First of all, the reports will focus on topical issues of special interest for developed and developing countries alike. Secondly, the various reports build on ITU's recognized expertise in the area augmented by regular feedback from its Membership. Last but not least, this series is important because it provides a meaningful contribution to the work of the Broadband Commission for Digital Development. The findings of the ITU Broadband Reports will trace paths towards the timely achievement of the ambitious but achievable goals set recently by the Commission as well as provide concrete guidelines. As broadband is a field that is growing very fast, we need to constantly build knowledge for our economies and societies to thrive and evolve into the future.

For these reasons, I am proud to inaugurate this first series of the ITU Broadband Reports and look forward to furthering ITU's work on the dynamic and exciting broadband ecosystem.

Brahima Sanou

Director, ITU Telecommunication Development Bureau

1. Introduction

This country case study addresses the development of a National Broadband Plan in Albania and in particular the development of the institutional framework together with the development of Electronic Communications policy and legislation and how this has influenced the development of the National Broadband Policy of 2012. The case study analyses the development of the Sector and how government champions and policy direction has provided the basis for the development of broadband in the country, including with the definition of ICT as a key pillar for the development of its economy and the integration of ICTs into various sectors of the economy.

The case study also reviews the role of the Electronic Communications regulator and other ICT stakeholders involved in the broadband ecosystem from setting the goals of the Plan, to defining and implementing the necessary policy and legislative measures, to fostering widespread application of modern technologies in all sectors of the economy and society.

Section 2 examines the demographic, political and economic context of Albania, and in particular how government actions have contributed to the development of the ICT sector. *Section 3* describes the evolution of the ICT market, giving a short overview of the telecommunication market and industry (including penetration, subscriptions - both for fixed and mobile/wireless, internet, as well as broadband technology, trends over last 10 years household/business penetration of PCs/laptops/tablets, and the prices of ICT equipment and services). *Section 4* describes the key elements of the Broadband Strategy/Policy, and details how actions to create a clear institutional, policy and legal and regulatory framework have contributed to the creation of a vibrant ICT sector. Finally, *Section 5* provides an overall assessment of the successful execution of the Electronic Communications strategy, and also provides some concluding comments describing lessons learned and highlights the remaining challenges emerging from the experience of Albania.

2. Demographic, Political and Economic context

Albania lies on the eastern Adriatic coastline, bordered by Montenegro to the north, Serbia/Kosovo to the north-east, TFYR Macedonia to the east and Greece to the south and south-east. Albania's agricultural and economic centres are situated along the coastal alluvial plain, in the west of the country. Two thirds of the interior is mountainous. The main population centres lie on the coastal plain stretching from Shkodra in the north to Vlora in the south, with the major urban agglomerations comprising the capital city of Tirana and the main sea port city of Durrës on the Adriatic Sea. The mainly rural mountainous and often scarcely accessible interior constitutes about 70 per cent of the country's total surface area.[1]

The plains enjoy a Mediterranean climate in contrast to continental climate of the Balkan interior.[2] Its surface is 28,748 sq km. Natural resources include petroleum, natural gas, coal, bauxite, chromite, copper, iron ore, nickel, salt, timber, and hydropower.

Figure 1: Map of Albania

Source: http://globeattractions.com/albania/

The July 2012 estimate of the population is 3,002,859, which in terms of age and gender can be broken down as follows: 0-14 years: 21.4% (male 337,364/female 303,669); 15-64 years: 68.1% (male

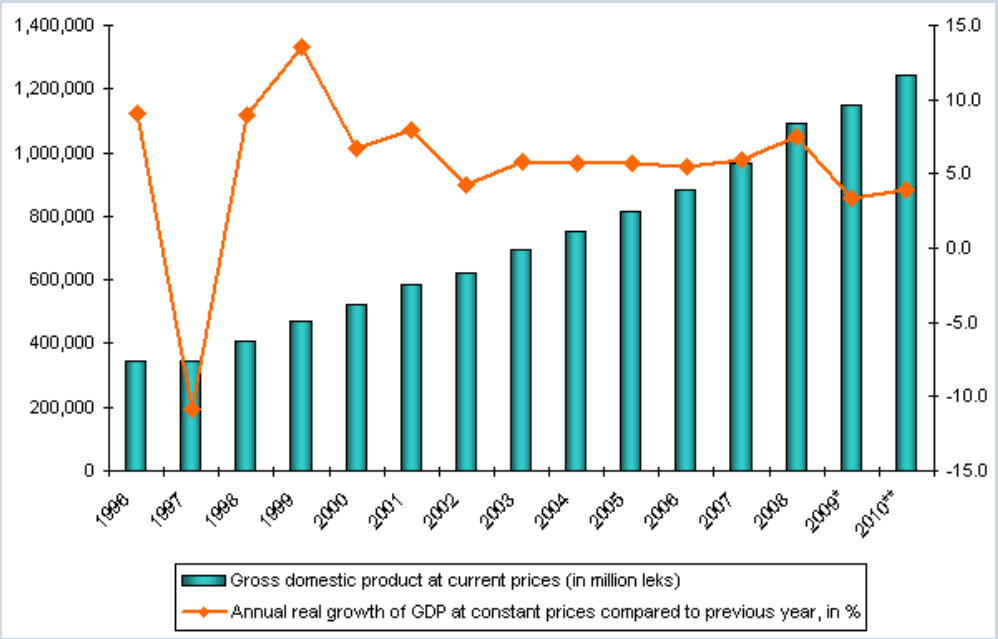
[1] DESSA Programme, Socio-demographic statistics in Albania: selected topics and future developments, 2010. Available at: http://www.bfs.admin.ch/bfs/portal/en/index/institutionen/statistikaemter_in/03.parsys.91287.downloadList.97907.DownloadFile.tmp/finalreportdessaeng.pdf

[2] Country Profile Albania, Foreign and Commonwealth Office. Available at: http://www.fco.gov.uk/en/travel-and-living-abroad/travel-advice-by-country/country-profile/europe/albania/?profile=geography

996,666/female 1,043,472); and, 65 years and over: 10.5% (male 148,151/female 165,345) (2011 est.).[3] The level of literacy amounts to 98.7%. The capital is Tirana, with 433,000 of population. Other cities are spread throughout the country culminating in an urban population of 52% of total population (2010), and a rural population of 48%. Albania is divided into 12 administrative counties, 36 districts, and 374 municipalities. 72 municipalities have city status. Overall there are 2980 villages/communities. Each district has its council, which is composed of a number of municipalities. The municipalities are the first level of local governance, responsible for local needs and law enforcement.

Albania, a formerly closed, centrally planned state, is making the transition to a modern open-market economy. Albania joined NATO in April 2009 and is a potential candidate for EU access. Rapid economic development and EU integration are high on the Government's agenda. Progress in European Union approximation has slowed down however, mainly due to delays in the passage of important laws and reforms. This has also been the case in the ICT sector. The country has made significant progress from being Europe's poorest country during 1990's to being reclassified as middle-income country (MIC). It is still, however, one of the poorest countries in Europe, hampered by a large informal economy and a poor energy and transportation infrastructure. Per capita GDP at purchasing power parity is still only 25 per cent of the EU-27 average.[4]

Figure 2: GDP growth in Albania



Source: INSTAT, available at: http://www.instat.gov.al/

[3] The World Factbook. Available at: https://www.cia.gov/library/publications/the-world-factbook/geos/al.html
[4] UNDP, Foreign Direct Investment Report. Albania 2011. Available at:http://intra.undp.org.al/ext/elib/download/?id=1120&name=web%20fdi%20report%20english%2Epdf

Government realizes that the potential role of Foreign Direct Investment (FDI) in transferring capital and technology is invaluable, and has taken measures to improve the situation, including by recently adopted a fiscal reform package aimed at reducing the large gray economy and attracting foreign investment.[5]

Business registration and business licensing procedures have been facilitated with the National Licensing Centre extending its services network to cities beyond Tirana. The e-signature system to allow online applications for registration became operational in March 2011, and the Albanian Investment Development Agency, which serves as a one-stop shop for foreign investors, became operational in June 2011. The Law on foreign direct investment was amended to grant special protection, under certain conditions, to foreign investors in the event of land ownership disputes. [6]

Albania's economy saw a macroeconomic growth averaging around 6% between 2004 and 2008 with low and stable inflation. Growth declined to about 3% in 2009-11. The private sector contributes 80% of GDP and around 82% of employment. Although the economy is mostly in private hands, the state retains control over key enterprises in the oil, energy and insurance sectors. Once market conditions improve, a major challenge is to complete long-anticipated privatisations in these areas.[7]

The largest contributor to growth was the strong export performance, in particular in the energy sector. In addition, Albania has attracted substantive inflows of FDI, which grew by around 17 per cent on an annual basis in 2010 to around USD 1 billion.[8] The turnover of foreign investment enterprises (FIEs, i.e. enterprises with 10 per cent or more ownership by a foreign investor) represented 29 per cent of the country's total in 2010. The turnover of FIEs is generated by three main economic activities, trade (24 per cent), manufacturing (21 per cent), and transport and telecommunications (18 per cent).[9]

Remittances, a significant catalyst for economic growth declined from 12-15% of GDP before the 2008 financial crisis to 8% of GDP in 2010, mostly from Albanians residing in Greece and Italy. Since 1991, the EU has provided the bulk of foreign aid to Albania. Although the economy has managed to cope relatively successfully with the global crisis, the main short-term challenge is to survive possible contagion effects from economic weaknesses in the Eurozone, especially in neighboring Greece.[10]

[5] Adapted from Country Profile Albania, Foreign and Commonwealth Office. Available at: http://www.fco.gov.uk/en/traveland-living-abroad/travel-advice-by-country/country-profile/europe/albania/?profile=geography and The World Factbook. Available at: https://www.cia.gov/library/publications/the-world-factbook/geos/al.html

[6] SEC(2011) 1205 final, European Commission Staff Working paper, Enlargement Strategy and Main Challenges 2011-2012, Albania 2011 Progress Report, October 2011, pg. 22.

[7] EBRD Country Page Albania. Available at: http://www.ebrd.com/pages/country/albania.shtml

[8] EBRD Country Assessment 2012. Available at: http://www.ebrd.com/downloads/research/transition/assessments/albania.pdf

[9] UNDP, Foreign Direct Investment Report. Albania 2011. Available at: http://intra.undp.org.al/ext/elib/download/?id=1120&name=web%20fdi%20report%20english%2Epdf

[10] EBRD Country Page Albania. Available at: http://www.ebrd.com/pages/country/albania.shtml

Table 1: Key Indicators, 2011

Key Indicators

Population	mn.	3.2	HDI	0.739	GDP p.c.	$	8817
Pop. growth[1]	% p.a.	0.4	HDI rank of 187	70	Gini Index		34.5
Life expectancy	years	77	UN Education Index	0.721	Poverty[3]	%	4.3
Urban population	%	48.0	Gender inequality[2]	0.271	Aid per capita	$	113.4

Sources: The World Bank, World Development Indicators 2011 | UNDP, Human Development Report 2011. Footnotes: (1) Average annual growth rate. (2) Gender Inequality Index (GII). (3) Percentage of population living on less than $2 a day.

Source: Bertelsmann Stiftung, BTI 2012 — Albania Country Report. Gütersloh: Bertelsmann Stiftung, 2012.

The United Nations Human Development Report 2010[11] places Albania amid countries with a high level of human development, and a high level of quality of education and literacy, ranking above other countries in the region. Albania is also ranked 18th among 141 countries according to UNCTAD's Inward FDI Performance Index for 2010, up sharply from the 68th place it occupied in 2005.

Telecommunications had been among the most dynamic service activities in Albania, having developed through privatization and subsequent investments of foreign investors and to some extent through domestic investments. The first mobile operator in Albania was launched in May 1996 by Albanian Mobile Communications (AMC), which was privatized in 2000, when 85 per cent of AMC's shares were sold to the Cosmote (Greece)-Telenor (Norway) Consortium. Investments were also led by Vodafone Albania, an affiliate of Vodafone (United Kingdom) which became the second cellular operator and was licensed in Albania in June, 2001. Eagle Mobile entered the market in October 2008 and the fourth mobile operator, a joint venture between Albanian companies and Kosovo Post & Telecommunication received its license in 2009. The fixed telephone operator Albtelekom was privatized through sale of shares to Calik Enerji Telekomünikasyon (Turkey) and its partner Turk Telekom.[12]

[11] http://hdr.undp.org/en/reports/global/hdr2010/chapters/
[12] UNDP, Foreign Direct Investment Report. Albania 2011. Available at: http://intra.undp.org.al/ext/elib/download/?id=1120&name=web%20fdi%20report%20english%2Epdf

Figure 3: Operators Revenues, year: 2010

Source: AKEP Data, 2012

** Additional information: 57,087 Million Lek = 519,114,303.90 USD*

Albania still remains one of the poorest countries in the region, with GDP purchasing power parity (PPP) estimated to be only 25% of the average for existing European Union member states.[13] There are also significant economic disparities between urban and rural areas with poverty being widespread in rural and mountainous areas, where according to the World Bank Poverty Assessment Program, around 12 % of the population lives below the poverty line.[14]

The Albanian government has implemented a number of fiscal and legislative reforms to improve the business climate for foreign investors. Albania has applied a policy framework favourable to FDI, and has more recently introduced policies to support private-sector development in general.[15] This is in line with government's strategy to attract investors, but also privatize strategic sectors such as banking, energy and communications. Capital inflows thus obtained have been crucial in financing the country's high current account and budget deficit.

Government has pursued a clear objective of achieving social and economic development, as well as NATO and European integration. In 2006 Albania signed a Stabilisation and Association Agreement with the EU, which entered into force in April 2009.[16] As part of the EU pre-accession process, Albania has

[13] Bertelsmann Stiftung, BTI 2012 — Albania Country Report. Gütersloh: Bertelsmann Stiftung, 2012.
[14] Bertelsmann Stiftung, BTI 2012 — Albania Country Report. Gütersloh: Bertelsmann Stiftung, 2012.
[15] UNDP, Foreign Direct Investment Report. Albania 2011. Available at: http://intra.undp.org.al/ext/elib/download/?id=1120&name=web%20fdi%20report%20english%2Epdf
[16] European Commission, Albania 2011 Progress Report. Available at: http://ec.europa.eu/enlargement/pdf/key_documents/2011/package/al_rapport_2011_en.pdf

received financial aid to build public institutions and improve cross-border co-operation under the EU's Instrument for Pre-Accession Assistance funding mechanism.[17]

Recognizing that democratization and rule of law (including transparency) are key to such progress, the Albanian government approved the National Strategy for Development and Integration (NSDI) in 2007 to establish government's medium to long-term goals (2007–2013) for all sectors, based on a national vision. In addition to the 22- sectoral strategies covering all ministries, NSDI comprises 15 crosscutting strategies such as gender equality, social inclusion, migration and youth. The strategy also translates the Millennium Development Goals (MDGs) into national priorities and links with the Stabilization and Association Agreement (SAA), which was signed by Albania on June 12 2006.[18]

The medium term economic ambition of Albania, as expressed in the National Strategy for Development and Integration 2007-2013 and through its treaty and political relations with the EU, is to achieve integration into the EU single market. This ambition is also recognized in the Electronic Communications field. This implies an acceptance of the *acquis communautaire*[19] as well as a convergence of the economic level of Albania with the average of the EU through the availability of the necessary infrastructure (including ICT), services and programs aimed at creating the necessary fiscal and commercial environment to promote foreign investment, enhance productivity, and increase trade, which ultimately will also create the conditions for future availability of EU subventions.

Significant progress has been made towards the development of e-government. Albania is a country with 100% Online Public Procurement, the National Civil Register is digitized, the One Stop Shop principle has been implemented for business registration since 2007 and the National Centre of Licensing was established in 2009, also functioning on the one stop shop principle.[20]

Members of the foreign business community also expect for the future that the Albanian Government further improves the business climate by simplifying administrative procedures, improving licensing and implementing the rule of law. They wish further improvements in tax administration and infrastructure. In particular, they identify as a hindrance to their businesses the relatively high level of the informality, the uneven enforcement of the tax laws to all businesses and difficulties to get proper invoices especially from micro and small enterprises.[21]

This has also been the case in the telecommunications sector where licensing, taxation and rights of way issues have hindered roll-out by operators.

[17] Budde, Executive Summary - Albania - Telecoms, IP Networks, Digital Media and Forecasts. Available at: http://www.budde.com.au/Research/Albania-Telecoms-IP-Networks-Digital-Media-and-Forecasts.html

[18] DESSA Programme, Socio-demographic statistics in Albania: selected topics and future developments, 2010. Available at: http://www.bfs.admin.ch/bfs/portal/en/index/institutionen/statistikaemter_in/03.parsys.91287.downloadList.97907.DownloadFile.tmp/finalreportdessaeng.pdf

[19] The *acquis communautaire* can be found in the EUR-Lex directory list of Community legislation, available at: http://eur-lex.europa.eu/en/legis/latest/index.htm this list of acquis is classified by 20 headings and is updated once a month.

[20] Regional Cooperation Council, INTERVIEW with Genc Pollo, Minister for Innovation, Information and Communication Technology (ICT), Albania, Newsletter 15/2011 - Our South East Europe. Available at: http://www.rcc.int/interviews/0/42/interview-with-genc-pollo-minister-for-innovation-information-and-communication-technology-ict-albania

[21] UNDP, Foreign Direct Investment Report. Albania 2011. Available at: http://intra.undp.org.al/ext/elib/download/?id=1120&name=web%20fdi%20report%20english%2Epdf

Box 1: Key factors underlying the development of ICT in Albania

- Telecommunications had been among the most dynamic service activities in Albania, having developed through privatization and subsequent investments of foreign investors and to some extent through domestic investments.
- The Albanian government has implemented a number of fiscal and legislative reforms to improve the business climate for foreign investors. Albania has applied a policy framework favourable to FDI, and has more recently introduced policies to support private-sector development in general.
- Government recognizes the importance of ICT and has taken actions to facilitate the development of the sector and integrate ICT in governance through a wide variety of ICT actions in cross-cutting sectors.
- ICT infrastructure is a key factor for sustained growth in Albania.
- In May 2010 the Council of Ministers approved a decision to cut Value Added Tax (VAT) in health and information technology sector from 20% to 10%.
- Members of the foreign business community also expect for the future that the Albanian Government further improves the business climate by simplifying administrative procedures, improving licensing and implementing the rule of law.

Source: Adapted from UNDP, Foreign Direct Investment Report. Albania 2011, available at: http://intra.undp.org.al/ext/elib/download/?id=1120&name=web%20fdi%20report%20english%2Epdf

3. Evolution of the ICT market

3.1. General Background

Box 2: April 2012 Action Plan of the Open Government Partnership Initiative

Albanians are among the most passionate internet users in Europe, having achieved the second highest growth in this area in the world from 2006 to 2010. Albanians have one of the highest mobile phone usage rates in Europe. The mobile phone penetration in the end of 2011 breached the 185% level. Albania is also the first country in the world having achieved 100% electronic public procurement services.

Source: April 2012 Action Plan of the Open Government Partnership Initiative, available at: http://www.opengovpartnership.org/sites/www.opengovpartnership.org/files/country_action_plans/Albanian%20OGP%20Action%20Plan_2.pdf

In recent years government measures have been introduced to bring Albania up to speed in the digital age. The Government of Albania has recognized the need for ICT for greater economic and social development and has not only focused on measures to enhance a greater supply of ICT services but has also made a concerted effort in the last decade to stimulate demand for ICT services, through government and through the development of access to ICT services.

Box 3: General Overview of ICT Market in Albania

- The State-owned telecommunications companies are privatized: in August 2000 – AMC, State-owned mobile operator was privatized, and in October 2007 – Albtelecom, State-owned incumbent operator was privatized;
- New Law on Electronic Communications approved in 2008 – the update of the Law is already prepared and pending to be adopted;
- Four mobile operators in 900 and 1800 bands;
- First 3G Individual Authorization issued in November 2010 to Vodafone Albania, and the second 3G Individual Authorization issued in September 2011 to AMC;
- Fixed telephony - Albtelecom is the incumbent operator. In addition, there are approximately 80 alternative operators (regional or local);
- Internet Access – there are 116 Internet Service Providers;
- International Internet Bandwidth - 30Gbps

Source: Adapted from Mataj, Endri, Adviser to the Prime Minister, Digital Albania, US-Albania Investment Forum, Tirana, September 2011, available at: http://www.developingmarkets.com/sites/default/files/session-3-endri-mataj.pdf and Buddecom report Albania 2012

Already in 2003, Government, in its National ICT Policy Strategy, recognized the need to widely introduce ICT in the country to achieve higher living standards and economic growth. It then stated that government would promote the use of ICT, by taking over a role as champion and visionary to drive forward the process for creating the information society.

This strategy has been at the core of ICT development and is also a building block of the Cross-Cutting Strategy on the Information Society 2008-2013. The Albanian National Strategy for Development and Integration 2007-2013 endorsed by the government in March 2008 also sets out the national policies in the view of integration in the EU and NATO, as well as the achievement of the Millennium Development Goals. In particular, the Strategy identifies priorities and policies in the field of telecommunications infrastructure and telecommunication regulation and services.

Both fixed and mobile network development to some extent have been restricted by a variety of factors. Such factors have included challenging geographical characteristics such as the mountainous terrain in much of the country, and the sparse population and low level of affluence of much of the population, particularly in rural areas. These factors have influenced the cost and financial risk of developing networks and services, including Broadband services, and especially fiber solutions, throughout Albania. Government is conscious of such restrictions and is actively working to create the framework to encourage investment.

Within the context of its strategy to promote and develop ICT, the telecommunications sector in Albania has been liberalized since 2007, and the number of operators that operate in this field has increased significantly. Liberalization of fixed telephony networks and services in Albania started with rural local services in 1998, moving to domestic long distance services in July 2003 and international services in January 2005. Data services and networks were liberalized in 1998. The provision of urban local networks and services as well as international services remained de facto closed to competition until the Law on Electronic Communications was adopted in 2008. [22]

Measures also included the privatization of the incumbent on 19 June 2007, when Turkey-based Calik Enerji and the Government of Albania agreed on the sale of a 76 per cent stake to a joint venture of Calik Enerji and Türk Telekom. The deal also included Eagle Mobile. Currently, the state retains 24 per cent of shares in Albtelecom and Eagle Mobile.

Government legislation also liberalized the telecoms industry, bringing it into line with the EU regulatory framework for communications, which encourages competition. Results have been clear in terms of availability of ICTs and in terms of electronic communications market growth as shown in figures 4 and 5 below.

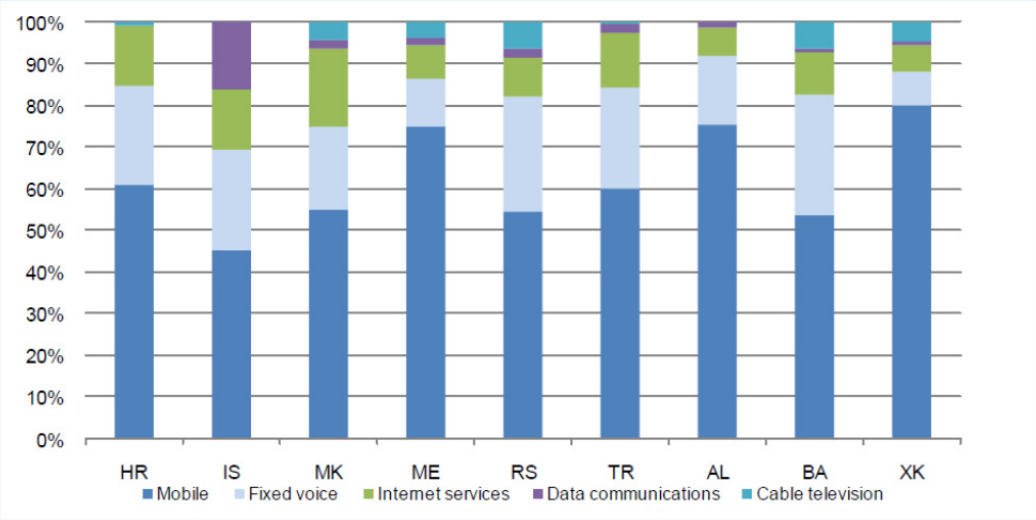
[22] Cullen International, Enlargement countries monitoring report, Annex 2, July 2012, pg.40.

Figure 4: ICT Indicators Albania, years: 2002-2010

Title	2002	2005	2008	2010
PC/100 inhabitants	0.5	1.2	2.3	4.6
Telephone/100 inhabitants	7.1	7.8	11.3	10.9
Mobile/100 inhabitants	25.2	34.2	88.8	136
Internet penetration	0.5	2.1	28.4	45
Broadband connections	---	0.1	1.24	3.75
Mobile Internet penetration	---	0.7	15.7	31.5
e-gov. readiness index	N/A	37.32	46.70	49.70

Source: Ing. E. Hasa, Information Society in Albania, e-Democracy, September 2010. Available at: http://www.edemocracy.mk/doc/presentations/Endri_Hasa.pdf

Figure 5: Electronic Communications Market Overview, 2012



Legend: Croatia (HR), Iceland (IS), FYR Macedonia (MK), Montenegro (ME), Serbia (RS), Turkey (TR), Albania (AL), Bosnia and Herzegovina (BA), Kosovo (XK).

Source: Cullen International, Enlargement countries monitoring report, Annex 2, July 2012, pg.13.

Government continues to promote the introduction of ICTs in various sectors. As such, during 2010 and 2011, the budget expenditure on education, where a particular focus has been given to the introduction of ICTs, was estimated at between 3.4 and 3.8% of GDP. ICT was added to the curricula for 17 vocational education and training schools. Public spending on research and development accounts for 0.05% of GDP in the 2011 budget. Progress was also achieved by the National Employment Service in improving the information system on job vacancies. The country's main policies over the past few years have resulted in a liberalized economic framework and improved conditions for doing business and for attracting foreign direct investment- FDI. Thanks to progress in economic transformation and a supportive external environment, economic growth was robust between 2000 and 2009.

Box 4: Key projects realized in terms of ICT accessibility and availability since 2005

- The e-Cabinet system was implemented in 2009, and the new 2012 platform e-Acts incorporated into the system, more than 1500 users from all ministries;
- In 2012 the Governmental Network Govnet is extended to local governmental institutions. By the end of 2012, many essential public services, such as private property register and health services will be electronic;
- All 510 Post Offices offer free Broadband Internet access throughout Albania, and plans are being made to extend this coverage in the country;
- The Master Plan for E-Schools approved in 2005. All 2000 Public schools are equipped with PC laboratories (27,014 PC+Laptops) and broadband Internet connections. ICT curricula are adopted;
- The National Civil register was digitalized and biometric documents were issued in 2008. Online issuance of civil registry documents is available from the 354 registry units connected with the central database;
- All public procurement has been realized through electronic means since 2009;
- Business registration is offered based on "one stop shop" principle since 2007;
- National Center of Licensing is offering services based on "one stop shop" principle since June 2009;
- E-government services are offered at least in first and second level.

Source: Sofie Maddens, presentation on Draft National Broadband Strategy, Tirana, March 2012.

3.2. Fixed Telecommunications

The fixed telephony is liberalized. There are a number of alternative operators provide fixed telephony besides the incumbent Albtelecom.

At the end of 2011, the number of fixed phone subscribers increased to 339 000, bringing the penetration rate of fixed telephony in Albania to 12% compared to 10% in 2010.[23]

Fiber-optic cables have been installed, primarily those installed by Albtelecom, although the expansion of private fiber-optic networks was stalled by expense and difficulty in obtaining rights-of-way. Fibre backbone infrastructure amounted to 4,690km compared to 2,160Km at the end of 2010: Albtelecom operates about 2,840km of network and alternative networks provide about 1,820km.[24]

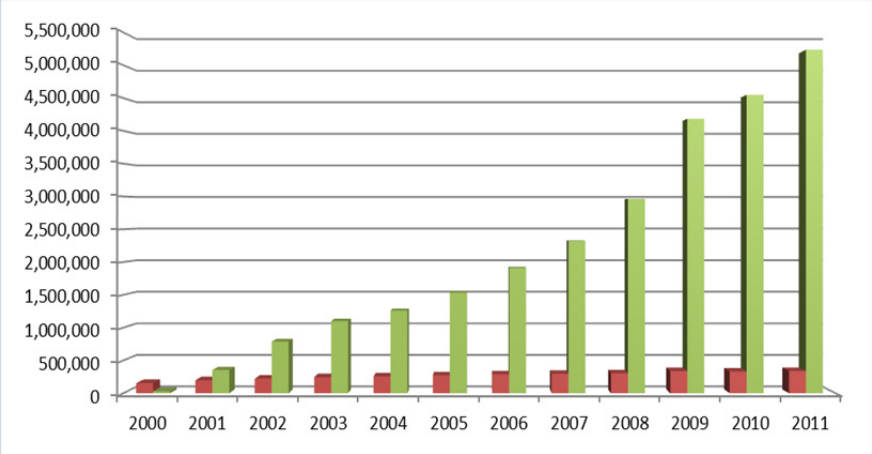
The Albtelecom fixed network is primarily copper although Albtelecom is improving its network. In 2008, it upgraded its ADSL network so as to be able to offer IP based services and support the delivery of broadband access, implementing soft-switches, Multiservice Access Nodes (MSAN) and increasing transmission network bandwidth. Albtelecom has also built a 1,530 km fibre backbone, and the company offers services in all urban and most rural areas through interconnection with other rural operators.[25] It also uses Fixed Wireless Access to expand coverage to rural areas. In 2011, Albtelecom launched its first double play bundle which includes 2 Mbps Broadband and 1500 minutes of calls in Albania and abroad.[26] Albtelecom also provides the school internet connectivity throughout the country under its contract with the Ministry of Education.[27]

ABCom, ASC, Nisatel, Primo and AMC Fiks (which started in December 2011 the provision of fixed telephony service with fixed numbers using the GSM network) are the five biggest alternative operators owning about 67% of the number of subscribers of fixed telephony of alternative operators. ABCom and ASC have had the biggest annual increase with 36% and 37% respectively, and AMC, which in only one month of activity in the provision of fixed telephony service with fixed numbers using the GSM network has managed to get 2% market share. ABCom continues to be the biggest fixed alternative operator with about 27 thousand subscribers. ABCom and ASC are also the two biggest operators present in the market with “triple play” offers, providing broadband Internet, telephony and TV.

[23] AKEP Interviews and 2011 data

[24] Buddecom Report Albania 2012. Available at: http://www.budde.com.au/Research/Albania-Telecoms-IP-Networks-Digital-Media-and-Forecasts.html
[25] http://www.ttinvestorrelations.com/turk-telekom-group/group-companies/ALBTelecom.aspx
[26] Albania Broadband Overview, available at: http://point-topic.com/content/operatorSource/profiles2/albania-broadband-overview.htm
[27] Interviews with stakeholders 2012

Figure 6: Number of fixed telephony and mobile subscribers 2000-2011



Source: AKEP Data

3.3. Mobile Networks

Three Albanian mobile operators with their own network infrastructure - AMC, Vodafone and Eagle Mobile - are licensed to operate 2G mobile services in the 900 MHz and 1800 MHz bands. The mobile market has experienced rapid growth due to competition, as Vodafone and later Eagle Mobile joined AMC.

In April 2009, Albania granted the fourth GSM license to a group called 'Mobile 4 Al' led by Post and Telecommunications of Kosovo (PTK), becoming the first country in the region with four mobile operators. Mobile 4 Al became operational only in late November 2010 under the brand name Plus communications.

In November 2010 Vodafone Albania won the first 15-year 3G license for the price of €31.4 million, a bid much higher than the initial asking price of €12.5 million. Vodafone launched operations of its 3G service in January 2011 and has expanded it since. This was followed by the grant of a second 3G license to Albania Mobile Communications in October 2011. This step is an important development in enhancing Albania's telecommunications sector.

Vodafone launched 3G in Tirana and Durres in January 2011. The operator will use HSDPA technology offering up to 14.4 Mbps in all base stations along with HSUPA 2 Mbps in the entire footprint. Vodafone plans to cover around 85.6 per cent of the territory within 18 months of being issued its 3G license (36 per cent within 6 months, 65.5 per cent within 12 months). By the end of June 2011, it had already signed up an estimated 50,000 customers to data services. As of end-2010, Vodafone held 38 per cent mobile market share in Albania. Its GSM network covers 91 per cent of the territory and up to 99.6 per cent of the population in urban and rural areas.

Aiming to break Vodafone's 3G monopoly, in September 2011 AMC was awarded the second 3G license. Its EUR 15.1 million bid beat its rival Eagle Mobile's EUR 12.9 million offer for the license. Founded in 1996, AMC was privatised in 2000 through the sale of 85 per cent shares to Cosmote, a mobile subsidiary of the Greek incumbent OTE. In February 2009, the government agreed to sell the rest of its stake (12.6 per cent) in AMC to Cosmote, who now controls, directly and indirectly, 97 per cent of AMC. At the end of

2010, AMC's mobile market share stood at 46 per cent. Its network covers 89.03 per cent of the territory and 99.8 per cent of the population.

Licensed in 2004, Eagle Mobile launched commercial services in March 2008 following privatisation in 2007. With 97.8 per cent population coverage and 90 per cent territorial coverage, it holds an approximate 20 per cent mobile market share.[28]

In 2010, mobile penetration in Albania was around 113 per cent, slightly below the EU average of 121 per cent. It grew by 11 per cent since 2009. At the end of 2011, the number of mobile subscribers grew by 15% compared with 2010 and amounted to approximately 5.2 million, which represents a penetration rate (number of users per 100 inhabitants) of 185%, which is much higher than the level of 140% in the year 2010 or the average in EU countries of 124% in 2010.[29]

The total number of mobile subscriptions in the nine enlargement countries increased by approximately 4 million, to 92.4 million at the end of 2011, which corresponds to an average penetration rate of 95%. In Albania, like in Montenegro, and Serbia mobile penetration rates have increased to such a level that today they are above the EU-27 average of 127%.[30]

3.4. Internet

ASN and INSTAT surveys for 2011 provide that 23% of businesses have Internet connection. Based on AKEP data, the number of business subscribers for Internet has increased as follows:

Table 2: Number of businesses with Internet connection

Number of business contracts for Internet connection: years 2009 - 2011			
2009	**2010**	**2011**	**Increase 2009-2011**
8000	10000	13000	1.6 times

Source: AKEP Reports

Access to Broadband or the Internet at home is the most inclusive way of bringing people online. At home, all household members can have access – no matter whether they have jobs, go to school, are male or female, children, adults or elderly.

Table 3: Percentage of households with Internet connection

Percentage of households with Internet connection			
2009	**2010**	**2011**	**Increase 2009-2011**
10%	12.%	22%	2 times

Source: AKEP Reports

[28] Cullen International, Enlargement countries monitoring report, Annex 2, July 2012, pg.2.
[29] AKEP data and interviews
[30] Cullen International, Enlargement countries monitoring report, Annex 2, July 2012, pg.2.

3.5. Broadband

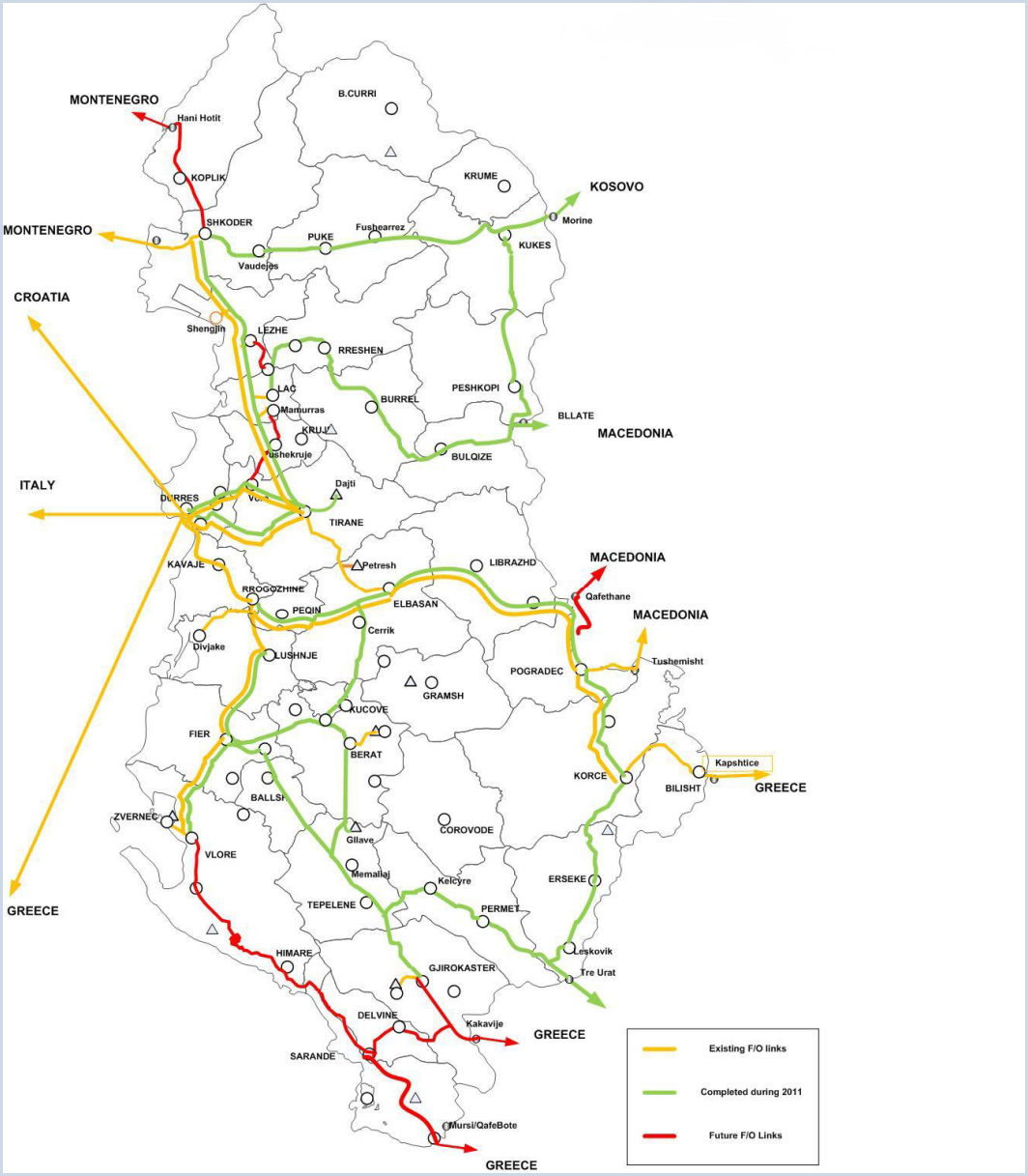
At the end of 2011 the number of households having access to Broadband Internet was about 161,000 or approximately 22% of households, and are estimated to be over 13,000 business subscribers. Based on these data, the number of Broadband connections (fixed and 3G-USB/modem) per 100 inhabitants is about 6.2%, compared with 3.7% in late 2010. This compares to 13% in TFYR Macedonia, and 20% in Greece. Most Broadband infrastructure and availability is in around Tirana and in towns in the west of the country.

During 2010, several significant changes took place in the provision of Broadband Internet access:

- Increase of ADSL Broadband Internet access speed from 256kbps-2mbps to 2mbps-12mbps, where the minimum and most used speed is 2mbps compared with 256 kbps in 2009.
- International Internet Connectivity (direct international connection) increased from about 6 Gbps in the end of 2009, to about 14 Gbps in the end of 2010 and to about 30 Gbps at the end of 2011.
- Provision of triple play packages: Internet, TV and Telephony
- Significant tariff reduction for Broadband access.[31]

[31] AKEP Data

Figure 7: Map of broadband infrastructure Albania



Source: AKEP 2012

According to AKEP, at mid-2010 there were 110,000 Broadband subscribers in Albania, of which 100,000 were residential users.

Broadband penetration reached 6.2% by late 2011, compared to 3.7% at the end of 2010 and 2.5% at the end of 2009 – an 18-fold increase as shown in Table 4 below. Household penetration in early 2012 was

about 22% (including mobile broadband). Broadband take up is already rising in response to increased availability and dramatic tariff reductions implemented during 2008 and 2009.[32]

A lack of high capacity connections with neighboring countries is still an ongoing issue for Albania, with few fibre-optic connections in place, although international bandwidth is improving due to improved connections on submarine cables with Italy in particular. International Internet Connectivity (direct international connection) has increased from about 6 Gbps at the end of 2009, to about 14 Gbps at the end of 2010 and to about 30 Gbps at the end of 2011.[33] In early 2011 Albtelecom and Telecom Italia Sparkle began upgrading the capacity of the Bari-Durres cable from 2.5Gb/s to 20Gb/s, and Italy will be linked to the Balkans Internet eXchange (BIX) in Tirana. BIX is being developed by UNIFI to serve as Albania's first fibre-connected data centre providing connectivity from Albania to the major telecoms hubs in Western Europe, including Milan, Frankfurt, Amsterdam and London. Subsequent phases of BIN will connect to Greece, Kosovo, Macedonia, and Montenegro.[34]

Table 4: Broadband penetration 2007-2011

Broadband penetration 2007-2011 number of connections per 100 inhabitants				
2007	**2009**	**2010**	**2011**	**Increase 2007-2011**
0.33%	2.5%	3.7%	6.2%	> 18 times

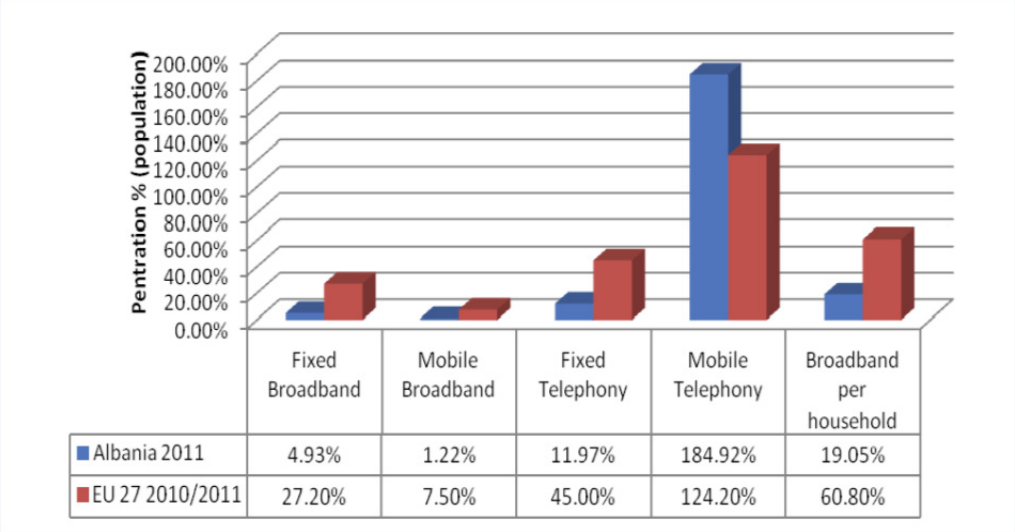
Source: AKEP Reports

[32] Point Topic Broadband User Service, *Albania Broadband Overv*iew. Available at: http://point-topic.com/content/operatorSource/profiles2/albania-broadband-overview.htm

[33] AKEP Interview and data, March 2012

[34] Buddecom Report Albania 2012. Available at: http://www.budde.com.au/Research/Albania-Telecoms-IP-Networks-Digital-Media-and-Forecasts.html

Figure 8: Comparison of penetration levels (population): Albania vs. EU27 average, 2011



	Fixed Broadband	Mobile Broadband	Fixed Telephony	Mobile Telephony	Broadband per household
Albania 2011	4.93%	1.22%	11.97%	184.92%	19.05%
EU 27 2010/2011	27.20%	7.50%	45.00%	124.20%	60.80%

Source: AKEP

Albtelecom has about 59% market share, with ABCOM in second place with 11% market share for Broadband access. The number of Broadband subscribers through ADSL of Albtelecom was about 70 000 at the end of 2010 – of those, 6% were business subscribers and the others are household suscribers. The main technology continues to be ADSL and the main operator is Albtelecom, which has been very active in Internet access services through investments in the local network in order to enable the provision of ADSL Broadband service and reduce tariffs for this service.

During 2011, alternative operators and the two mobile operators Vodafone and AMC have seen a considerable growth in broadband connections, while Albtelecom has suffered a decrease in the number of broadband connections. Among fixed alternative operators, ABCom remains the operator with the biggest number of broadband connections with about 30,000.00 by the end of 2011, which constitutes an increase of 116% from the year 2010. ABCom market share has grown from 11% in 2010 to 21% in 2011 and also is the second biggest operator for fixed and mobile broadband connections with 17% market share. A big increase has also been noted for the second biggest alternative operator ASC with an increase of 79% accounting for 7% market share for fixed broadband access and 6% for fixed and mobile broadband.

Broadband access from mobile networks has started to have positive effects since the entrance of Vodafone Albania and AMC – at present, there are 34,000.00 broadband subscribers with 3G USB/modem cards, which constitute 20% of the total number of broadband subscribers (fixed and mobile). Meanwhile the number of mobile subscribers of these two operators using broadband internet service through mobile devices is about 280,000.00 by the end of 2011.

Albtelecom obtain Internet access with MSAN where the connection from the telephone exchange to the cabinet is made with optical fiber and then with copper line, which may be considered as FTTN (Fiber To The Node). Albtelecom has made considerable investment in NGA by installing a great number of MSAN for the connection of all subscribers into NGA/NGN network.

The most commonly used speed is increased from 1-2 Mbps to 2-4 Mbps. About 48% of subscribers with fixed broadband access have a speed of 2-4 Mbps and about 14% have access with 4 Mbps. The main operators also have offers for greater speed 4-20 Mbps.

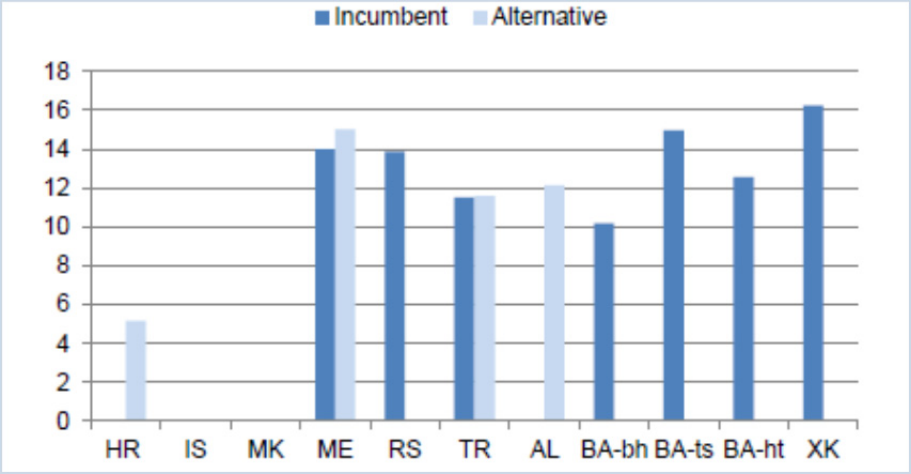
Table 5: Monthly Broadband Subscription Cost (unlimited flat rate data traffic) by incumbent and largest alternative operator regardless of technology in Euro (incl. VAT)

Operator	<1Mbps	1-2Mbps	2-4 Mbps	4-8 Mbps	8-20 Mbps	>20 Mbps
Incumbent	-	-	17.13	25.70	34.27	-
Alternative	10.70	12.13	15.70	17.84	-	35.70

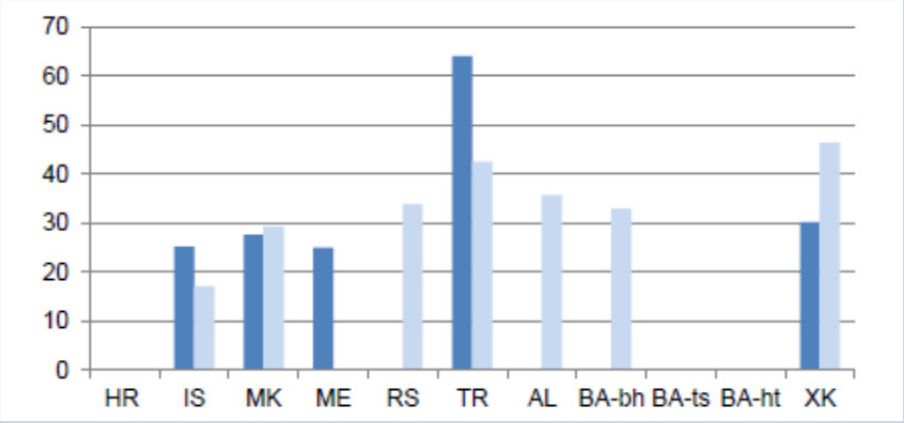
Source: Cullen International, Enlargement countries monitoring report, Annex 2, July 2012, pg.252.

Figure 9: Monthly Retail Broadband Subscription Prices – comparison between 1-2 Mbps and 20 Mbps prices in Euro (incl. VAT) -

1-2 Mbps



>20 Mbps



Legend: Croatia (HR), Iceland (IS), FYR Macedonia (MK), Montenegro (ME), Serbia (RS), Turkey (TR), Albania (AL), Bosnia and Herzegovina (BA – BA-bh – BH Telecom, BA-ts – Telekom Srpske, BA ht – HT-Mostar), Kosovo (XK).

Source: Cullen International, Enlargement countries monitoring report, Annex 2, July 2012, pg.255.

4. Establishment and Implementation of the Broadband Strategy/Policy

4.1. Background

Box 5: A Clear Vision by Government

"The Albanian Government has made ICT development one of its top priorities and introduced the "Digital Albania" initiative which calls for an acceleration of ICT penetration and use in governance processes in Albania. Achieving the objectives of "Digital Albania" will require infrastructure investment, institutional reforms, legislative improvements, capacity building and effective implementation of these policies."

Source: Minister Genc Pollo, Minister for Innovation and ICT

Recognizing the role of ICTs in economic and social development, including for the development and evolution of world-class commerce, education, health, and government administration services, the Government of Albania has identified affordable and reliable connectivity and the availability of a wide range of communications services as a key priority for over a decade. It also recognizes that through e-government applications, the government can transform its own operations and the way of interacting with citizenry and businesses.

Investment in new infrastructure and related services along with the government's procurement decisions is expected to influence and stimulate the private sector supplying goods and services to the government that the government will later use to provide government's services to citizens and businesses – in other words, creating conditions for wider uptake of ICT.

To meet these challenges, government has introduced a series of policy measures as well as legal and regulatory measures. Such measures have been focused both on the enhancement of supply as well as on demand creation for ICT networks and services. Recently, government also recognized that to meet these challenges, it is essential to have access to high-speed Broadband throughout the country.

What is important to note though is that it is not only in terms of ICT policies that the importance of ICT is recognized - the Government Program for 2009-2013 also identified the use of new technologies as a fast track towards development, and announced the national program "Digital Albania" as one of its major projects, reconfirming its commitment to move forward as a knowledge based economy and towards the creation of an Information Society.

Box 6: Albania Government Program

"Today, Digital Albania is not slogan anymore, but a reality. For this reason the Government has decided to use ICT in all the administrative institutions not only for the internal day to day work, but mainly in offering direct online services to the citizens and businesses."

Source: Albania Government Program 2009-2013

4.2. Institutional Framework

4.2.1 Ministry for Innovation and ICT

The Ministry for Innovation and ICT is the policy-maker on electronic communications and postal services, and carries out the following tasks:

- Development and implementation of an integrated strategy to enable the vast use of ICT in order to promote knowledge based economy
- Enable the development of new electronic services for business and citizens and push forward the harmonization of the legal framework pertaining to the field, with that of the European Union.
- Development of a complete legal framework for ICT and Postal Services and ensure its effective implementation.
- Engage in e-governance projects and promote the integration of ICT in all fields of economic development and best service the needs of knowledge and information based society.

The Ministry has been a key driver of ICT development, including Broadband Policy development. In practice, the Ministry for Innovation and Information and Communication Technology is in charge of and drives policymaking and legislation, and drives the efforts of drafting policies for the electronic communications sector which are subject to approval by the Council of Ministers, drafting relevant primary and secondary legislation, and preparing the National Radio Frequency Plan. It is also responsible for the approval of tender procedures for frequency assignment and designation of universal service providers, based on proposals by the regulator.

4.2.2 Electronic and Postal Communication Authority (AKEP)

Electronic and Postal Communication Authority -AKEP was established as an independent regulatory body on electronic communication and postal services which supervises the regulatory framework defined by the Electronic Communications Law, and by the Law on postal service and the development policies defined by the Council of Ministers. AKEP is authorized to set out administrative fees, to impose price control obligations (along with other regulatory obligations) on operators with SMP and set out methodologies for regulation of tariffs without any requirement for the ministerial approval. AKEP is also responsible for market surveillance and implementation of legislation.

AKEP is a public, independent, non-budgetary, legal entity, chaired by a Steering Board which is independent in its decision making, and executes its functions based on an Internal Regulation, which the Board itself has adopted. The Chairman of the Board is also the executive director of the Electronic and Postal Communications Authority. The competencies and duties of AKEP are defined by the Electronic Communications and Postal Laws respectively.

4.2.3 National Agency on Information Society (NAIS)

NAIS is the technical body responsible for state information systems. It was established by the Council of Ministers in 2007. Its overall objective is to coordinate all of the Government of Albania's (GoA) activities in the field of Information and Communication Technologies.

NAIS main duties are divided in 3 pillars:

- Policymaking process which is composed of: drafting the National Strategy on Information society, drafting the legal and sub legal acts on information society. Coordination of the policies and programs related to information society field.
- Coordinating all ICT related projects within the central government. Many actors of the international community have, and are currently supporting Albania in the ICT field. The task of NAIS is to synchronize all GoA activities in this field with the aim to avoid overlapping and maximize benefits. Coordinate the reforms, programs and projects on the information society field, which are applied in all the public institutions. etc;
- Standardization and Technical Assistance is also in the focus of NAIS. NAIS is defining the standards of ICT for the public administration; Develop the internal network of the ICT for the public administration, including GovNet, Government Portal, etc.

NAIS is also the Regulatory and Coordinating Authority of the State databases.

4.3. Policy Measures

4.3.1 2003 Policy

Already in 2003, the Government of Albania recognized the need to assume the role as champion and visionary to drive forward the process for creating the information society, thus setting the example, provide the right legal and judiciary frame, and, as a user of ICT, stimulate investment in ICT.

Government also recognized that it had a role to play and was to give priority to the deployment of ICT solutions in all parts of government policy and corresponding public sector programs and in all sectors of the economy, observing the need for ubiquity and a socially inclusive society. The 2003 Policy further recognized the need to build infrastructure for an Open Information Society, but also that there was a need to ensure the relevance of ICT Strategy within a Regional and European Context.

By joining the other countries of SE Europe in signing the eSEE Agenda+ in October of 2007, Albania also confirmed its commitment towards the development and creation of a knowledge based economy. This common regional agenda was signed in the spirit of European Union information society i2010 Initiative.

Albania has adopted a number of policy documents which recognize the key role of ICT in national development, and aim to promote the development of the sector.

4.3.2 The National Strategy for Development and Integration 2007-2013

The National Strategy for Development and Integration 2007-2013 (NSDI) represents the fundamental strategic document of the country that harmonizes for the first time in a single strategic document the perspective of the sustainable economic and social development, integration into the European Union and NATO structures, as well as the achievement of Millennium Development Goals. The NSDI was finalized in December 2007 and approved by Council of Ministers Decision no. 342 date on 12 March 2008.

ICT is recognized as an important element for development in the National Strategy for Development and Integration, which highlights the need for:

- Liberalization of the market
- Establishment of effective regulation
- Strengthen the capacities of policy maker and regulatory body.

In terms of ICT, the main objective of the strategy is to prepare a policy, strategy and implementation plan in order to utilize and develop further the ICT potential of Albania with the aim to increase knowledge, raise effectiveness and make public administration transparent.

4.3.3 The 2010 Policy for Electronic Communications in the Republic of Albania

The policy lays out the medium term strategy of the Government to develop electronic communications networks and services in Albania. The strategy covers the development of telecommunications, data transmission and broadcast media. The policy follows from the "National Strategy for Development and Integration 2007-2013" and, in conformity with Albania's treaty and political relations with the EU, seeks to achieve integration through the implementation of the *acquis communautaire.*

The Vision of the Policy is to achieve that within seven years, electronic communications will be provided by a variety of operators in an effective competitive environment using a variety of technologies that are free to carry all types of content whether private or broadcast. The Policy also aims to achieve that Broadband access, at increasingly high speeds, will be available to the great majority of households that wish to have it.

4.3.4 Digital Albania Initiative

This is a program of the Albanian Government in line with the EU's i2010 initiative that was adopted in 2009 and aims for all inclusive e-governance, and speeding up ICT penetration in the country, through infrastructural investments, institutional reforms, improvements in the legislation, and capacity building.

Digital Albania aims and objectives include:

- All inclusive e-governance
- Efficiency and effectiveness of the administration
- Implementation of services with a high impact
- Interoperability of systems
- Strengthening of the public participation in the decision-making process.

4.3.5 Cross-Sector Strategy for Information Society 2008-2013

The Strategy on the Information Society was approved by the Council of Ministers by Decision No. 59 date 21.1.2009. Its vision is to achieve:

"The progress of Albania towards a knowledge based society through a sustainable development that would lead to a society where all citizens benefit from the telecommunications and information technologies with the aim of increasing the level of knowledge, effectiveness and transparency in the public administration."

The main objectives of the Strategy are:

- Development and Improvement of Information Society's Infrastructure;
- Improvement and Completion of Legislation relevant to IS;
- Encouragement and Support for the development of the IS;
- Encouragement and support for the development of the ICT private sector;
- Increase the level of knowledge and information in relation to the Information Society and coordinate joint action among State and citizens.

4.3.6 Draft National Broadband Policy 2012

Box 7: Broadband Mission Statement

- The National Strategy for Broadband Access to Services of the Information Society in the Republic of Albania ("Broadband Strategy") defines the objectives and procedures for the future development of Broadband in Albania (until the year 2020) as well as concrete measures for its support.
- The policy puts forward a collaborative approach between the public and private sectors as well as between national, regional and local governments to promote and later universalize Broadband services and relies on competition to expand the Broadband market.
- Most important, the policy seeks to create the tools which will create an enabling environment for private investments including legal and regulatory reform and effective market and financial mechanisms to develop Broadband networks.
- The aim is that many of the suggested measures would have diminish the need for public intervention through the government budget by creating the environment where Broadband roll-out could be achieved through operator expansion and build-out (through licensing) or funded through contributions from the communications industry (through universal access and service financing), with other initiatives becoming self-sustaining from service fees (as with e-government programs) or cost savings (as with infrastructure sharing).

Source: Draft National Broadband Plan Albania, 2012

The objectives identified in the Broadband Strategy include:

- Improvement and further development of Broadband infrastructure across the country;
- Growth of Internet penetration;
- Providing high speed and secure Internet nationally, regionally and locally, including to households and through anchor institutions such as schools, postal offices and community centers;
- Increasing competition and reducing prices;
- Increasing Quality of Service;
- Increasing the number of electronic services available to the Citizen of Albania and ultimately achieving the digitization of all public services;

- Increasing awareness of the benefits of the use of ICT services through Broadband within all layers of society, and including for persons with special needs;
- Achieving the required Broadband infrastructure and speed throughout the county to serve the growth of public services such as electronic government (e-government), education (e-learning), innovation (e-Innovation) and capacity (e-building Capacity).

A key element identified in the draft Strategy is the identification of the need to ensure a holistic approach to ICT development. This, the draft Strategy provides, shall be met through the promotion of government communication and collaboration on ICT projects at Cabinet level as well as through a clear definition of the responsibility of local authorities and municipalities in ICT planning and the coordination and communication of their respective projects and decisions to national government. The government department responsible for the definition and implantation of the Plan is the Ministry of Innovation and ICT.

Actions in terms of stakeholder coordination include:

- Create a Broadband Forum for Collaboration and Dialogue on the Deployment and Use of Broadband with the participation of government, industry and regional and local authorities
- Establish clear responsibilities and mandate of government entities and agencies
- Identify coordination mechanisms for content-related input from line ministries
- Ensure coordination and communication with regional and local entities such as municipalities

The draft Strategy also identifies a number of long-term targets, including the achievement of nationwide basic Broadband access either directly to all households or to businesses or through anchor institutions by no later than the end of 2017, with specific targets such as the doubling of number of households and companies having access to BB connection, the coverage of 100 % of schools with a target of having at least one BB internet connection in every class, the provision of Broadband to 100% of universities, the provision of Broadband connections to 100 % of post offices offering at least one BB internet connection to citizens in all villages with a specific population as well as to 100% of hospitals or medical centers.

In addition to providing for access to basic Broadband networks for all households and businesses by 2015/2017, the Strategy also provides for the provision of high speed Broadband access with transmission rates of at least 100 Mbps to 50 % of households and access to high speed Broadband access with transmission rates of at least 30 Mbps should be available to all Albanians by 2020.

Measures to achieve such objectives include a mix of legal and regulatory measures to foster investment and growth by enhancing a greater supply of infrastructure and services, including:

- Allowing national, regional and local government entities to partner with the private sector to build Broadband networks, including through PPPs, subject to open access obligations;
- Granting of other 3G authorizations;
- Completion of the regulatory framework in terms of infrastructure development and Broadband services, including regulation relating to competition, access and infrastructure;
- Promoting synergies in the build-out of infrastructure between different entities including the electricity, road and railway companies particularly in un-served and underserved areas through regulatory tools, financial and economic stimuli, and through other incentives;
- Promoting the use of the “digital dividend” to make spectrum available for Broadband as well as re-farming (implementation of Full Neutrality in assigning frequencies);

- Making the installation of new passive infrastructure and in-building wiring a requirement for planning authorizations;
- Encouraging local authorities and regulators to make use of their powers to require the disclosure of the existence and condition of local access infrastructures from operators, including on the location, capacity and availability of ducts and other local loop facilities, to provide alternative operators with the possibility to deploy their fiber networks at the same time as incumbents, sharing the costs of civil engineering works.

The Strategy also provides for measures to promote a greater demand for services, including through the creation of anchor institutions to promote e-inclusion of all sectors of the population and society in all regions of the country, and to provide targeted actions to help increase demand for Broadband from other users, such as households and businesses. Accessibility, affordability, and attractiveness will be the three pillars for the government to use in efforts to increase demand among users. Such efforts are to be implemented in a phased manner while gauging market developments, and public support will have to fill only the remaining gaps (such as training for people with disabilities or the elderly or access for schools in remote areas), including:

- Continuing to set up Broadband access centers, telecenters, kiosks, and other public access points, including through the post offices;
- Continuing to provide support for connecting educational and research institutions to Broadband networks;
- Training all citizens to access and use Broadband through digital literacy programs;
- Supporting local, relevant Internet content in Albanian language;
- Putting government and public information online and creating e-government and other e-applications (such as those for health, education, and agriculture);
- Educating citizens about the benefits of Broadband;
- Promoting Broadband use to businesses and communities through specific targeted awareness campaigns and programs, as well as voucher and subsidy programs to consumers.

Finally, the Strategy also provides for the creation of innovative tools to provide financial support and stimuli for investment in and the use of Broadband, including:

- Allowing local authorities to access national Broadband funds to build out or use fibre core networks that have been or are being constructed to link up public entities (schools, libraries, clinics) in order to bring high-speed connections to unserved communities;
- Accompanying the use of funds from public-private partnerships (PPPs) and other financial instruments with matching funds from government or risk-sharing instruments;
- Use financing instruments, which could be of debt, guarantee or equity type or a combination thereof, to match to the needs of investment projects in terms of flexibility, maturity and risk.

4.4. Legal and Regulatory Framework

Albania implemented the EU *acquis* in the Electronic Communications Field in 2008 with the adoption of the Electronic Communications Law, which is based on the EU 2003 regulatory framework. Amendments for introducing the EU 2009 regulatory framework were prepared in 2010 and 2011, and the texts are expected to be adopted within 2012. In addition, a series of other laws which are essential to the development of the Information Society have been adopted.

They include:

- Data protection law: Law no 9887 - 2008
- E-signature law: Law no 9880 -2008
- Cybercrime Law - 2008
- Law on electronic commerce No. 10128- -2009
- Law on e-document: Law no 10278-.2010.

The 2008 Electronic Communications Law introduced the General Authorization Regime for all Electronic Communications networks and services. The Law on broadcasting, however, prevents cable network operators from providing other electronic communications services such as voice telephony or broadband access. However, cable operators can circumvent that restriction in practice by establishing a separate legal entity. The New Media Law addresses this issue as cable networks will now be provided based on a general authorization regime. The Law is in Parliament pending adoption.

Spectrum allocation has been delayed in a number of cases. In 2010, for example, AKEP prepared the process to issue four UMTS licenses. Following a decision by the Minister, however, only one license was granted in 2010, and another in 2011. An attempt to issue a third license failed in February 2012 as both bids offered by the two remaining mobile operators were below the reserve price. Although the second UMTS/3G license was awarded in September 2011, at present no timetable for release of further (3G) licenses to encompass the full possibilities of the spectrum has been communicated. Albania has also not awarded licenses for fixed wireless access. The digital transition has been delayed, with a new strategy for analogue switch-off which was adopted in May 2012 providing for completing switchover by June 2015. Any digital dividend spectrum will therefore only become available after that date.

The Agency for Electronic and Postal Communications (AKEP) has taken several decisions to foster competition and reduce prices in the telecom market, including:

- Market analysis regulation which was approved on July 2009, where AKEP defined relevant markets subject to regulation. The list comprises 16 markets of EC recommendation 2003 (all except for broadcasting and international roaming services).
- Tariff regulation with glide path for wholesale call termination on individual mobile networks based on BU-LRAIC model.
- Tariff regulation with glide path for wholesale SMS termination on individual mobile networks based on BU-LRAIC model.
- Leased Lines Regulation.
- Mobile Number Portability.
- Local Loop Unbundling.

There has also been progress on the introduction of some competitive safeguards, such as mobile number portability and decisions on new reference interconnection offers and long-run average incremental cost accounting. Carrier selection and pre-selection were implemented in autumn 2011 for international calls and in 2012 for national calls.

In April 2011, AKEP published the final analysis for the wholesale markets of access into Fixed and Broadband networks, containing the Market Analyses no. 14 and 15 of the Regulation on Market Analysis, being the Wholesale market of Access to Physical Networks Infrastructure (including split access partial and non-partial) from a fixed location and the Wholesale Market of Broadband Access. Based on this market analysis AKEP designated Albtelecom with SMP in the above relevant markets, imposing the

obligation for transparency, non-discrimination (publication of RUO), tariff control and cost orientation for opening the LLU for full unbundled and shared access. The maximal level of access tariffs into Albtelecom local network for LLU shall be in accordance with BULRAIC model values.

AKEP also imposed obligations for Albtelecom including on local loop unbundling and imposing the publication of the Reference Unbundling Offer. Other obligations were also imposed on Albtelecom after AKEP designated Albtelecom with SMP in the retail market of minimum leased lines (including specific kinds of leased lines up to 2Mb/sec) the wholesale market of terminating segments of leased lines, and the wholesale market of trunk leased lines. AKEP imposed the obligation for transparency, non-discrimination, tariff control and cost orientation for wholesale and retail leased lines. AKEP decided on the maximal level of tariffs for national wholesale leased lines at BULRAIC costs level, and imposed significant reductions in tariffs of international wholesale leased lines with 62-64%. AKEP imposed obligations for access for leased lines with high capacities such as 34 and 155 Mbps (before the maximum was 2 Mbps), as well as deadlines for the provision of leased lines, this in compliance with the EC recommendations.

The Agency for Electronic and Postal Communications (AKEP) also issued a decision to review tariffs in the mobile telephony sector by 2015.

The new national strategy for analogue switch-off adopted in May 2012 envisages a region-by-region approach, starting from April 2013 and ending in January 2015, with the ultimate deadline of June 2015. At the same time, Albania is reported to operate already now well developed DVB-T and DVB-H networks with national coverage.3 The networks, however, operate outside of the licensing framework for broadcast services adopted by parliament in May 2007.[35]

Important reforms, such as adoption of amendments to the 2008 Law on Electronic Communications and secondary legislation, have been delayed and must be implemented to ensure progress in the sector. While mobile penetration is high, the markets for fixed telephony and broadband are underdeveloped by European and regional standards (with penetration levels at around 11% and 6.2% respectively).

[35] Cullen International, Enlargement countries monitoring report, Annex 2, July 2012, pg.45.

5. Lessons learned

The Government of Albania considers the deployment of Broadband networks a crucial element for its future economic and social development. Numerous "white spot" areas without Broadband still exist throughout Albania, however, particularly in more remote rural areas.

Within this context, the Government of Albania intends to promote the development of Broadband in Albania and identify concrete actions to enhance availability, affordability and accessibility of Broadband communications services. Specific measures will be defined to promote roll-out and awareness of the benefits of ICTs to daily life, work, education, commerce, government, and health, and enhance investment throughout the country.

Whilst considering the requirement for broad accessibility to all groups of population, the business sector and the public administration, including promotion of the access to services of the Information Society (IS services) for rural and remote areas, government aims to take into consideration existing policies such as the 2010 Policy for Electronic Communications in the Republic of Albania , the Cross-Cutting Strategy on the Information Society, as well as Targets[36] set forward by the Broadband Commission for Digital Development in 2011. Government will also seek to further implement the EU regulatory framework for e-communications, including the Radio Spectrum Policy Programme.

Government is seeking to define measures to promote Broadband as part of an operational National Broadband Plan (A Broadband Strategy) with defined national targets and a balanced set of policy measures aimed at incentivizing investment in fast and ultra-fast internet.

As part of the measures to promote and plan for Broadband, Government also recognizes that there is a need to work together with public and private sector stakeholders including industry, operators, and service providers, as well as municipalities, local authorities and industry.

Albania, like most countries in Europe, is facing investment challenges in the financing of high speed internet infrastructure. High amounts of investments are needed to achieve ubiquitous coverage of state-of-the-art competitive Broadband networks. Certain financial means are available to the government of Albania under the terms of its Accession Assistance. Although a number of initiatives have been taken to promote the development of the ICT sector in particular through financial stimuli, further measures are to be considered to promote private investment in Broadband.

[36] http://www.broadbandcommission.org/Documents/Broadband_Targets.pdf

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