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National Broadband Plan



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# Executive Summary

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. It has also recognized that to meet these challenges, it is essential to have access to high-speed Broadband throughout the country.

ICTs are essential to enhance the development of economic opportunities throughout the country, including in particular in rural areas, and to make such areas more attractive for investment and relocation. In addition, understanding of what ICT can do and e-literacy in rural and remote areas in particular is often in need of improvement. The government recognizes that rural areas in particular need Broadband and the opportunities it offers.

ICTs are also essential for inclusion of people with special needs.

Numerous “white spot” areas without Broadband still exist throughout Albania, particularly in more remote rural areas. Specific measures will therefore be defined to target unserved and underserved areas, including remote and rural areas, 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.

The Government of Albania considers the deployment of Broadband networks a crucial element for its future economic and social development, but believes that without public intervention, there is a risk that the deployment of fast Broadband networks will focus mainly in a few high-density zones leaving rural and remote areas excluded.

The Government of Albania notes that the European Commission has stressed the importance of its Member States having an operational Broadband plan with defined national targets aligned on European Broadband targets,[[1]](#footnote-1) as well as a balanced set of policy measures to incentivize investment in fast and ultra-fast internet, specifically based on reliable and thorough implementation of the EU regulatory framework for e-communications, consistent implementation of the Radio Spectrum Policy Programme,[[2]](#footnote-2) adequate cost reduction measures and coherent application of the State Aid Broadband Guidelines.[[3]](#footnote-3)

The Government of Albania hereby presents a National Broadband Plan for Albania that clarifies the policy focus and defines a Broadband policy adapted to the situation and challenges the country faces, including for the provision of Broadband in rural areas. Working together with public and private sector stakeholders including industry, operators, and service providers, as well as municipalities, local authorities and industry, 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.

The Plan evaluates the current institutional, legal and regulatory and technological situation in the Republic of Albania, and identifies possibilities to improve access to Broadband, while observing the principle of technological neutrality and without the violation of competition rules. It takes into account 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, in conformity with existing policies such as the the 2010 Policy for Electronic Communications in the Republic of Albania[[4]](#footnote-4), the Cross-Cutting Strategy on the Information Society,[[5]](#footnote-5) as well as targets set forward by the Broadband Commission for Digital Development.[[6]](#footnote-6)

This Plan sets forth the goals, targets and broad implementation strategies of Broadband in Albania that will ultimately lead to a blueprint for their realization. It also highlights the importance and the respective roles of public and private sector participation and partnerships, both in terms of defining goals, projects, and milestones, as well as in the creation of a variety of financial models.[[7]](#footnote-7)

**OBJECTIVES AND SPECIFIC MEASURES TO ACHIEVE NATIONWIDE BROADBAND IN ALBANIA**

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).

Among the **objectives** identified, these 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).

Specific long-term **targets** are:

* + 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 the following targets being envisaged:
* doubling of number of households and companies having access to BB connection;
* 100 % of schools with at least one BB internet connection in every class;
* 100% of universities with
* 100 % of post offices offering at least one BB internet connection to citizens [in all villages with more than xxx population];
* 100% of [hospitals/medical centers] with at least one BB internet connection;
  + In addition to access to basic Broadband networks being available to all households and businesses by [2015/2017], 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.[[8]](#footnote-8)

**Measures** to achieve such objectives shall include:

*Enhancing a greater* ***supply*** *of infrastructure and services through legislation and regulation that fosters investment and growth, 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.

*Promoting 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 providing 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.

*Creating* ***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.

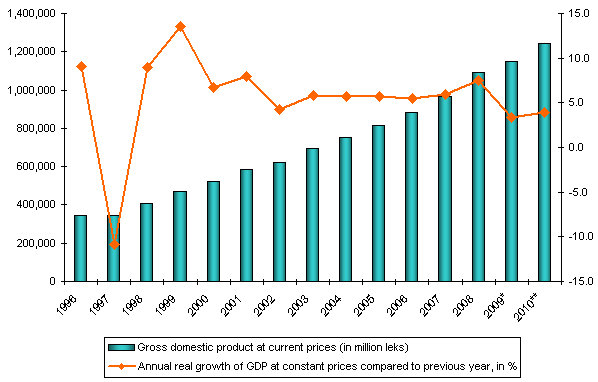
*Source: Sofie Maddens-Toscano, ITU consultant, March 2012*

# Analysis of the Current Situation

## General Country information

The Republic of Albania is situated in the South East region of Europe, South-West of the Balkan Peninsula, along the Adriatic and the Ionian Seas. It is positioned between these geographical coordinates: 39o 38’ (Konispol) and 42o 39’ (Vermosh) south-north, 19o 16’ (Sazan Island) and 21o 40’ (Vernik village, Korca) west-east. The territory of Albania of 28 748 km2 and its population is 3.1 million inhabitants (According to the April 2001 Census).[[9]](#footnote-9)

Albania achieved economic growth and has enjoyed macroeconomic stability. Macroeconomic reforms in Albania have contributed to growth, poverty reduction and moderate inflation. Annual growth rates averaged 6% between 2005 and 2008,[[10]](#footnote-10) and the poverty rate fell significantly since 1998. Following the global economic crisis, real growth of GDP still remained at 3.32 percent in 2009 and 3.94 in 2010. GDP per capita reached at average level of 2.816 € (3.734 $ USA) in 2010. According to the structure of gross value added by economic activities, the services sector contributed 57.6 percent of value added in 2010.[[11]](#footnote-11)



**Figure 1: GDP in Albania[[12]](#footnote-12)**

During the last ten years, the most evident structural changes in the Albania economy have been the gradual reduction of the importance of the agricultural sector in terms of GDP (from 24% of GDP in 2000 to about 16% in 2008), an increase in the importance of the construction sector (from 8% in 2000 to 12.7% in 2008), and a significant growth of the service sector (53% of GDP). Industry amounts to about 8 % of GDP.[[13]](#footnote-13) In 2010, economic activity posted strong growth of 3.8% with such growth mainly driven by foreign demand as exports of goods rose by 63%, spurred mostly by exports of electricity.[[14]](#footnote-14)

In 2005, Albania’s population was 3.1 million, representing a 6% decline from the 2000 population of about 3.3 million. Children and young people represent 46% of the population, making Albania one of the youngest countries in Europe. Within the country, urban population accounts for 65% of total population, up from 56% in 1990.

Albania is divided into 12 administrative counties, 36 districts, and 374 municipalities.[[15]](#footnote-15) 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.

The private sector contributes 80% of GDP and around 82% of employment.[[16]](#footnote-16) Recognizing the importance of private investment, the Albanian Government has undertaken a comprehensive regulatory reform to create a business- and investment-friendly investment climate, notably by reducing administrative burdens and costs of doing business.[[17]](#footnote-17)  As such, 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.[[18]](#footnote-18)

Albania's financial system is dominated by the banking sector, which accounts for some 95% of the system's total assets.

ICTs have generated significant revenue within Albania.

**Figure 2: Operators Revenues[[19]](#footnote-19)**

Government has continued 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.[[20]](#footnote-20)

The medium term economic ambition of Albania, as expressed in the National Strategy for Development and Integration 2007-2013[[21]](#footnote-21) and the subsequent Policy for Electronic Communications in the Republic of Albania[[22]](#footnote-22) and through its treaty and political relations with the EU, is to achieve integration into the EU single market.

This implies an acceptance of the *acquis communautaire* 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.

## Legal and Regulatory Framework in Electronic Communications

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. The 2008 Electronic Communications Law introduced the General Authorization Regime for all Electronic Communications networks and services. Amendments for introducing the EU 2009 regulatory framework were prepared in 2010 and 2011, and the texts are in Parliament pending adoption. 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 date 10.3.2008
* E-signature law: Law no 9880 date 25.2.2008
* Cybercrime Law adopted on 2008
* Law on electronic commerce No. 10128, date 11.5.2009
* Law on e-document: Law no 10278 date 29.4.2010

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 17, 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.

In April 2011, AKEP published the final analysis for the wholesale markets of access into fixed and Broadband networks, containing the market analysis 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.[[23]](#footnote-23) 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.[[24]](#footnote-24)

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.[[25]](#footnote-25)

Competition in the mobile telephony market has been intensified with the introduction of a fourth operator in the 900 and 1800 bands. The second UMTS/3G license was awarded in September 2011. No further 3G licenses have yet been granted despite a recent tender that did not result in the award of a new license. The digital transition is planned for June 2015.

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 as stated above. Carrier selection and pre-selection were implemented in autumn 2011 for international calls and in 2012 for national calls.

Similar to regulatory authorities in France and Portugal, and recognizing that measures need to be taken to incentivize private investments in infrastructure, including Broadband without resort­ing to the use of direct subsidies to companies, AKEP is mapping existing infrastructure in a Backbone Infrastructure Atlas including existing ducts and other passive elements and suggesting measures to facilitate their use for NGA network roll‑out.[[26]](#footnote-26)

The aim of such an Atlas is to:

* Establish a Centralized database, which will store information on all backbone infrastructure of electronic communications networks in the Republic of Albania;
* Provide transparency and data for free capacities;
* Create improved capacity utilization of the public electronic communications networks;
* Develop an electronic system to analyze and plan telecommunication infrastructure;
* Develop multiple roles for its users to access the data.

Users will include:

* General public will have access to data on connection points and free capacities (no details on the provider) in the territory of Albania
* Operators will have access to the system and change information only for their own networks.
* Users of government bodies will have access at certain levels of the system
* AKEP will have access to all detailed infrastructure information regarding geographical positioning, technical info and data on free capacities.[[27]](#footnote-27)

Government and the regulator are analyzing options for a more efficient allocation and administration of the frequency spectrum. Within this context, studies have been carried out regarding the use of frequencies for Fixed Links, BWA (Broadband Wireless Access) and FWA (Fix Wireless Access), GSM/UMTS and PMR (Private Mobile Radio). Government has also analyzed the digital dividend and seeks to promote the efficient use of the digital dividend, including for the promotion of Broadband. At present there are licensed broadcasters in the digital dividend bands but government and the regulator are considering how best to use these bands after June 2015.

The purpose of such studies is to increase the effectiveness of use of frequencies’ spectrum; to provide of a clear picture of the regulatory aspect regarding technical conditions to be fulfilled in every use of the different bands (level of interference allowed, power, spread, etc.); and to encourage the use of digital technology in the allocated bands, etc.[[28]](#footnote-28)

## Policy Framework

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.

### 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.[[29]](#footnote-29)

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.[[30]](#footnote-30)

### 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.[[31]](#footnote-31) 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.

### 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.

### 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.”*[[32]](#footnote-32)

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.

## Institutional Framework

### Minister for Innovation and ICT

The Ministry for Innovation and ICT is the policy-maker on electronic communications and postal services (<http://www.mitik.gov.al>).

Some of main duties of MITIC are:

* 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.

### Digital Albania Department

Within the Prime Minister’s Office there is the Department of Digital Albania, the creation of which was approved by the Decision of Council of Ministers No.1150 date 25.11.2009.

The Department’s main responsibilities consist of:

* Development of electronic government projects and integration of ICT in all economic and social areas by fulfilling the needs of a society based on knowledge and information.
* Development of a national market of information and communication technologies.
* Development of initiatives on digitalization, electronic communications, information society and ICT, and preparation of respective policies.

The Department answers directly to the Minister for Innovation and Information and Communication Technologies.

### Electronic and Postal Communication Authority (AKEP)

AKEP is the independent regulatory body on electronic communication and postal services. (<http://www.akep.al>) 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 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.

### National Agency on Information Society (NAIS)

NAIS is the technical body responsible for state information systems. (<http://www.akshi.gov.al>). It was established by the Council of Ministers in 2007.[[33]](#footnote-33) 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.[[34]](#footnote-34)

### Agency on Research and Innovation Technology (ARTI).

(<http://www.akti.gov.al>)

The Agency for Research, Technology and Innovation (ARTI) is a public, legal institution under the competences of the Council of Ministers. ARTI is established with the Decision of Council of Ministers and has started its activity in March 2010.

ARTI aims to build a modern system of science, strengthen of research and technology, as well as their integration inside the higher education system.

### National Authority for Electronic Signatures

In February 2008, the Albanian parliament approved the electronic signature law, which is in compliance with the European Directive on electronic signatures (1999/93/EC). In July 2008, the Albanian Prime Minister approved the structure of the National Authority for Electronic Certification (hereinafter NAEC) with the May 2009 “Ordinance on costs and fees” making the NAEC operational.[[35]](#footnote-35)

NAEC’s main duties are as follows:

* registers the names of the Certification Service Providers;
* registers the names of those CSPs that have suspended the activity;
* registers the names of the Testing and Confirmation Bodies;
* registers the valid, revoked and suspended qualified certificates;
* suspends the qualified certificates in the case the law has been broken;
* Inspects and audits the CSP anytime it judges as necessary.[[36]](#footnote-36)

### National Council on Radio Television (KKRT)

Independent regulatory authority which regulates the activity of the public and private radio and television. (<http://www.kkrt.gov.al>) The National Council on Radio and Television also administrates and manages the spectrum of the radio frequencies allocated for radio and television broadcasts, in compliance with the definitions as regards the radio and television services envisaged in “The National Plan of Radio Frequencies” approved of by the Council of Ministers.

## Current Supply of ICTs

*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 the 100% electronic public procurement services.[[37]](#footnote-37)*

Liberalization was gradually introduced in the fixed telephony subsector, with rural local services being liberalized in 1998, domestic long distance services in July 2003, and finally international services being liberalized in January 2005. The concept of Regional licenses was introduced in April 2007, which allowed local networks and services to be offered by new market entrants, although this did not become effective in practice until after the adoption of the Electronic Communications Law in 2008.[[38]](#footnote-38)

According to ISP data for 2010, the number of Wi-Fi Hot Spots is estimated to be about 1400, while the number of Internet cafes about 1000.[[39]](#footnote-39) Such access points are important for the development of e-literacy in particular, so that all levels of the population can have access to ICTs.

Both fixed and mobile network development to some extent 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.

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.[[40]](#footnote-40) Parliament is expected to approve draft Rights-of-way Regulations shortly.[[41]](#footnote-41)

Alternative operators have extended their zones of operation although they are still largely centered in urban areas and rural areas near cities. Some of these operators offer double and triple play packages (internet, telephony and TV), with internet being Broadband internet access.[[42]](#footnote-42)

In 2011, Government issued a tender to build and operate a national fiber optic Broadband backbone. Unfortunately this process was cancelled, but given the importance of Broadband, government is re-evaluating the situation, and new measures are expected to be taken in 2012.

There are currently four mobile operators in Albania that have stimulated a higher level of competition and led Albania to a high rate of mobile penetration, which is expected to rise further in coming years.

At the end of 2011, the number of mobile subscribers grew by 15% compared with 2010 and amounted to approximately 5.2 million,[[43]](#footnote-43) 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.

The first 3G authorization was granted in 2010 for Vodafone and second authorization was granted in November 2011 for the company AMC.

Mobile operators have been very active in providing Internet service through mobile

devices and PC modem cards, offering significant reduction for this service for contract and prepaid users. By the end of 2010, the number of mobile subscribers (prepaid and postpaid) with GPRS/EDGE Internet access through their mobile phone was estimated to be at about 1.2 million.

There are other licensed operators that are essentially licensed ISPs providing double and triple play, including voice, Internet, and video—though in several cases the video is delivered over satellite due to lack of terrestrial Broadband capacity. One of the larger players in this space is an Albania Online/Albania Fiber Backbone (AFB)/PRIMO, operating under the brand name of PRIMO.[[44]](#footnote-44)

At the end of 2011, the number of fixed phone subscribers increased to 339 000,[[45]](#footnote-45) bringing the penetration rate of fixed telephony in Albania to 12% compared to 10% in 2010.

**Figure 3 Number of fixed telephony and mobile subscribers 2000-2011**

Government recognizes that this level is still low compared with EU countries and countries in the region, and is therefore making concerted efforts to increase the supply of ICT infrastructure, including Broadband.

**Figure 4. Comparison of penetration levels (population): Albania vs. EU27 average**[[46]](#footnote-46)

Albania has two fixed line operators – Albtelecom and PRIMO. The Albtelecom fixed network is primarily copper. In addition to these, Abissnet and ABCOM both own DSL networks. Operators have also started to invest in optical fiber, including the alternative operators. Alternative operators offer their services mainly in urban areas.

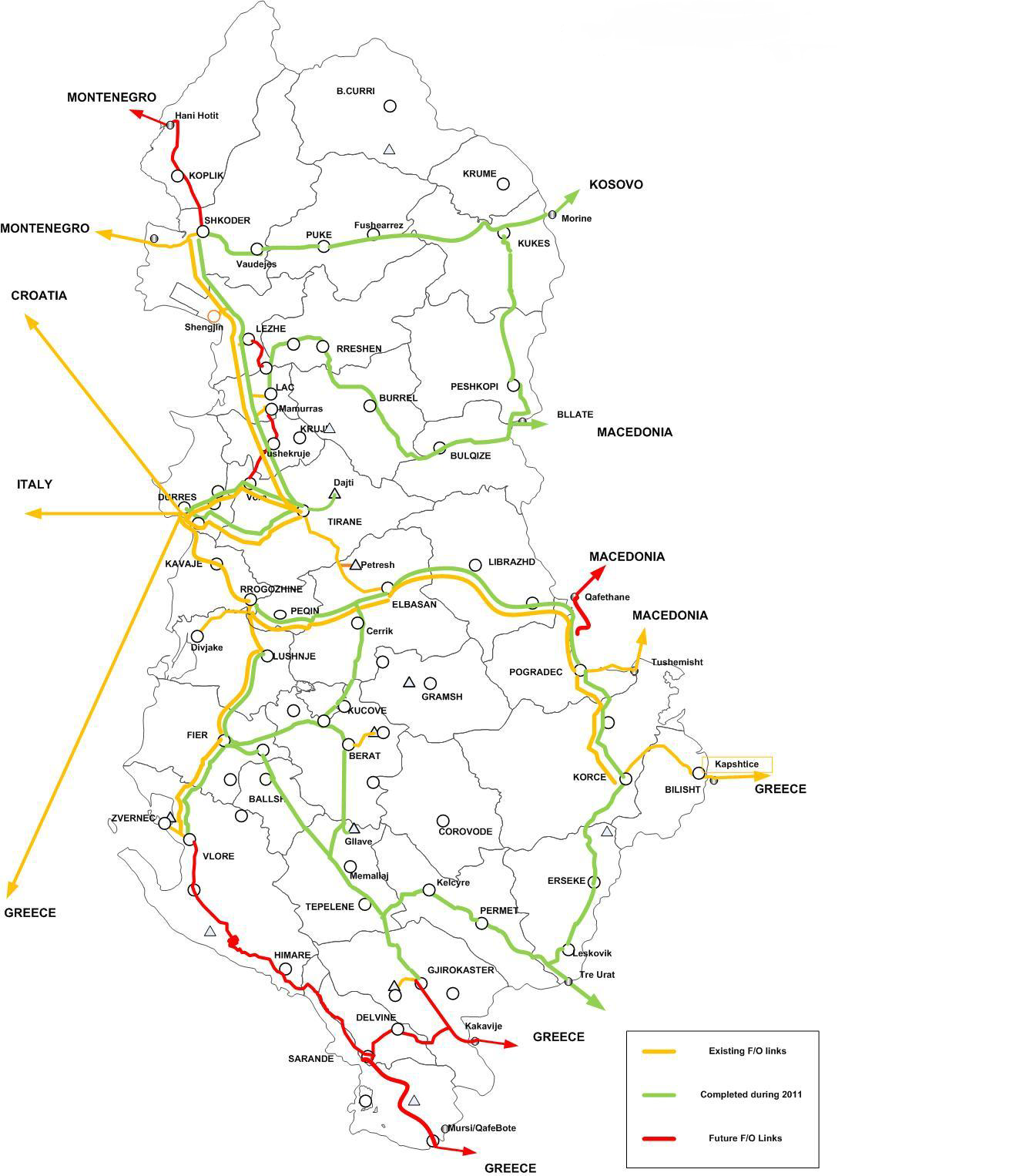
The number of Broadband users has increased with the use of ADSL technology, and of 3G technology. Albtelecom is improving its network – in 2008, it upgraded its ADSL network so as to be able to offer IP based services. Albtelecom’s fibre backbone stretches for 1530 km, and the company offers services in all urban and most rural areas through interconnection with other rural operators. It also uses Fixed Wireless Access to expand coverage to rural areas. Albtelecom also provides the school internet connectivity throughout the country under its contract with the Ministry of Education.[[47]](#footnote-47)

In 2011, Albtelecom launched its first double play bundle which includes 2 Mbps Broadband and 1500 minutes of calls in Albania and abroad.[[48]](#footnote-48)

Alternative operators own 466 km of fiber and control 36 per cent of the retail xDSL Broadband connections supplied over their own infrastructures. There are also regional competitors that offer Broadband services over their own fiber, cable and wireless networks, although such operators are generally limited to the major cities.

Abissnet offers Internet and telephony services in Albania's main cities and provides ADSL2+ and FWA based Broadband services with speeds ranging from 512/1024 Kbps to 512 Kbps/11 Mbps. ABCOM offers cable, ADSL and ADSL2+ services to residential customers with up to 16 Mbps speeds as well as GEPON based fiber connections to corporate customers. ABCOM is aiming to expand its HFC, fibre and ADSL/ADSL2+ networks to cover 75 per cent of the Albanian territory. PRIMO bought all shares in the Albanian Fiber Backbone in 2008 and acquired 100 per cent of H-Communications (Hermes), a fixed telephony and Internet service provider, and offers Broadband, PSTN fixed telephony services and VoIP.[[49]](#footnote-49)

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.



**Figure 5 – Infrastructure Albania[[50]](#footnote-50)**

According to AKEP, at mid-2010 there were 110,000 Broadband subscribers in Albania, of which 100,000 were residential users. A lack of high capacity connections with neighboring countries is an ongoing issue for Albania, with few fibre-optic connections in place. Alternative operators have focused instead on using microwave links for onward connections.

**Table 1: Performance in International Internet Connectivity**

|  |  |  |  |
| --- | --- | --- | --- |
| **Total capacity of international internet connection** | | | |
| **2009** | **2010** | **2011** | **Increase**  **2009-2011** |
| 6 Gbps | 14Gbps | 30Gbps | **5 times** |

Source: AKEP Reports

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) has 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.[[51]](#footnote-51)
* Provision of triple play packages: Internet, TV and Telephony
* Significant tariff reduction for Broadband access.[[52]](#footnote-52)

**Table 1: Broadband penetration 2007-2011**

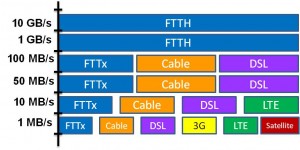
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Broadband penetration 2007-2011 number of connections per 100 inhabitants** | | | | |
| **2007** | **2009** | **2010** | **2011** | **Increase 2007-2011** |
| 0.33% | 2.5% | 3.7% | 6.2% | **> 18 times** |

Source: AKEP Reports

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.

A significant number of Broadband connections provided by alternative operators is through a combination of optical fiber, coaxial cable or copper line.[[53]](#footnote-53)

This compares to a general European situation where the fixed Broadband penetration rate was 25.6 percent in July 2010. According to the World Economic Forum Report of 2011, although most Broadband lines in Europe are currently based on xDSL technologies, new access technologies such as mobile, cable, and fiber are emerging. The EU continues to take a technology neutral approach however and individual operators determine the best possible solution to reach Next-Generation Access (NGA). There are multiple technologies and operators are generally expected to take a multi-step approach to increase bandwidth and ultimately reach full FTTH deployment, including interim steps of upgrading to FTTC/N+ VDSL2 with the possibility of implementing vectoring capabilities



**Figure 6: Progress to FTTH[[54]](#footnote-54)**

To stimulate development, the European Union has committed to achieve ambitious high-speed targets, thus providing in a number of key strategy documents such as the “Digital Agenda for Europe” and in “Europe 2020” that half of European households should subscribe to at least 100 Mb/s, and that 30 Mb/s should be available for all.[[55]](#footnote-55) The deployment of high-capacity Broadband, however, is still limited in Europe, with only 30 percent of lines offering speeds above 10 Mb/s and only 0.5 percent above 100 Mb/s. According to the Commission Staff Working Document on National Broadband Plans of 30 March 2012, by early 2012, eight Member States (Denmark, Finland, France, Luxembourg, Latvia, Malta, Netherlands and the United Kingdom) had already achieved full coverage for “basic” Broadband services, where “basic” is defined as having download speeds from 512 Kbps to 4 Mbps, and a further 17 countries have set a corresponding quantitative target, or are about to do so. [[56]](#footnote-56)

At one end of the scale, there is Finland which in 2010 made Broadband a legal right for every citizen. From 1 July 2010 every Finn was given the right to access to a 1Mbps (megabit per second) Broadband connection and government vowed to connect everyone to a 100Mbps connection by 2015. In the UK the government has promised a minimum connection of at least 2Mbps to all homes by 2012 although there it has not become a right in law.[[57]](#footnote-57)

In the case of Albania, Government intends to promote Broadband in a variety of ways so that it may reach the stated targets by 2017 and 2020 respectively.

## Current Demand for ICTs

An essential element to encourage operators to invest in Broadband and to reduce the gap between the amount that operators plan to invest in network infrastructure and the investment required for achieving Broadband targets is “demand stimulation”. Operators will be hesitant to deploy high speed networks where consumer demand is low, which is generally the case if there are few applications and services that require this type of bandwidth.

The Government of Albania has recognized the need for ICT for greater economic and social development and has 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, for example, through the offer of free internet in postal offices or the promotion of internet in schools.

### Government Demand (e-government initiatives)

The development of the Information society and ICT development has been one of the main priorities of the Albanian Government, with the promotion of ICT in all walks of life.

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 as well as of the National Strategy for Development.

Government sets the example, provides the right legal and judiciary framework, and, as a user of ICT, stimulates investment in and take-up of ICT. Government has been mandated since the early 21st Century with the task of giving 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.

Through e-government applications, 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 will 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 this way, conditions for wider uptake of ICT are created.

There are 125 ICT-related projects ongoing in the public administration.[[58]](#footnote-58) Many public services related to businesses and individuals are already online. The e-Cabinet system, 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 being 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. [[59]](#footnote-59)

During 2012, the e-Government Interoperability Framework (e-GIF) will be established, which will enable the exchange of information between public administration institutions.

The National Agency of Information Society is establishing a high capacity Datacenter which will enable all online public services to be centralized and integrated.

In the area of Customs, E- Customs has been developed, and the new Excise system will be implemented in 2012 which will include online access and services for economic operators; the system will enable operators to check online the status of their statement, transit and account balance, and it will begin to prepare the processing of online payments.

The Tax Administration will develop the terms of reference and bidding procedures for starting the full implementation of the e-Tax system, which aims to integrate the current tax system and subsystem into a single one, intending to increase the tax administration performance.[[60]](#footnote-60)

Electronic tax services have been offered since 2008, and within the year 2012, the personal income declaration system (G2C) will be developed.

In the justice sector measures are being undertaken to digitalize the file transfer process within and between the various levels of the judicial system and to initiate the online inspection of courts and judicial hearings in the country, which is one of the new functionalities that the Integrated Case Management Information System (ICMIS) provides.[[61]](#footnote-61)

The E-employment project will be implemented in 2012, with the aim of digitalizing information in all employment offices, consolidating the databases for the labor market and creating a registry of job seekers and employers.[[62]](#footnote-62) A Social Services website will be created, along with a map of all such services offered in Albania[[63]](#footnote-63)

In the field of education, emphasis has been placed on Internet connectivity, on measures aimed at bridging the digital divide and those aimed at raising awareness of ICT needs in schools. A master plan for e-schools was approved in 2005, and all 2000 Public schools are now equipped with PC laboratories (27014 PC+Laptops) and connected with Internet connections, which as of January 2011, were reported to be speeds of 1MB download and 256K upload per school.[[64]](#footnote-64) Every Albanian school with a headmaster has this connectivity. ICT curricula have also been adopted.

In addition, during 2012, government will implement the State Matura online process, which will facilitate greater access to information and services for all.[[65]](#footnote-65) The National Exam Agency set up the regulated professions exams digitally for 2012, thus developing an international standard of entirely digital tests.[[66]](#footnote-66) The Public Agency for Higher Education Accreditation (APAAL) is completing the digitalization of its management system, and the first module of the U-Gov system, a system at the service of universities for internal information management, is underway.[[67]](#footnote-67)

Other actions which are being implemented include:

* All 510 Post Offices offer free Broadband Internet access throughout Albania, and plans are being made to extend this coverage throughout Albania;
* 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.

Main Planned ICT Projects include:

* Development of Government Private Cloud Computing.
* Development of Government HR Management Information System.
* Development of Government Gateway and Interoperability Layer for State Information Systems.
* Extension of E-Tax System extension.
* Extension of PAP2 Project run by Albanian Post to 1800 Public Access Points, to offer free Internet access to citizens.
* Extension of Treasury System.
* Extension of e-schools project to aim for Internet in every school classroom.
* Establishment of a ProTik Innovation Center.
* Establishment of an ICT Park.[[68]](#footnote-68)

### Business Demand

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 3: Internet Connection**

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

Source: AKEP Reports

### Civilian Demand

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.[[69]](#footnote-69)

**Table 4: % of households with Internet connection**

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

Source: APEK Reports

## Financing of ICTs

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.[[70]](#footnote-70)

Certain financial means are available to the government of Albania under the terms of its Accession Assistance. Pre-accession financial assistance to Albania is provided under the Instrument for Pre-Accession Assistance (IPA). Through IPA National Programs, the EU allocated a total of € 83.2 million in 2010 and € 82.0 million for 2011. The year 2010 also saw progress in the preparation of the Multi-Annual Indicative Planning Document (MIPD) 2011-2013, which adopts a sectoral approach with the focus on Justice and Home Affairs, Public Administration Reform, Transport, Environment and Climate Change, Social Development, Agriculture and Rural Development. The MIPD 2011-2013 for Albania was adopted in July 2011.[[71]](#footnote-71)

A number of initiatives have been taken to promote the development of the ICT sector in particular through financial stimuli. In May 2010, for example, Albania’s Council of Ministers approved a decision to cut Value Added Tax (VAT) in health and information technology sector from 20% to 10%.

**Broadband Financing in Europe**

In terms of Broadband, countries across Europe have looked to varying options to provide public intervention to finance Broadband. According to the 2012 European Commission Staff Working Document on National Broadband Plans:[[72]](#footnote-72)

* **Portugal** invested funds from the European Economic Recovery Plan (EERP) to deploy NGA in 140 rural municipalities. Successful bidders were required to connect at least 50 % of the population in each municipality with a guaranteed minimum speed of 40 Mbps downstream within 2 years. Portugal has also created a €800million credit line open to all NGA investors.
* The **United Kingdom** earmarked £530 million in 2010 for closing gaps in basic Broadband coverage and ensuring that ultra-fast Broadband reaches at least 90 % of households.
* **Austria and Spain** are planning partial reinvestment of the proceeds from the digital dividend auction into the sector. Sweden has already done this.
* **France** has established a comprehensive national programme for the roll-out of ultra-fast Broadband which comprises a mix of funding instruments. One component is € 900million of subsidies for projects by local authorities to roll out NGA. Eligible technologies will mostly be FTTB/H, but also upgraded copper networks and ancillary wireless solutions. A further € 1 billion has been earmarked for loans to private investors seeking to deploy NGA and a third component allocates up to €100million to research and development of high-speed satellite solutions.
* **Estonia, Latvia and Lithuania** use structural funds to implement a model whereby public sector investments, or a combination of public and private investments, extend optical fibre backhaul to rural areas and establish points of presence serving as a basis for the deployment of last-mile access networks by private operators.
* **Sweden** has set up a ‘ducting fund’ to support the laying down of passive infrastructure as a basis for subsequent Broadband deployment.
* In **Italy**, the National Strategic Project for ultra-fast Broadband will rely on both public and private funds; both this project and the national Broadband plan for basic Broadband will require specific agreements among regions, autonomous provinces, local authorities and central administration. Implementation of this project is expected to start with a first injection of nearly € 0.5 billion of structural funds reserved for regional projects from Calabria, Puglia, Sicilia, Basilicata, Sardegna and Molise.
* **Finland** advises local municipalities on how to incorporate special entities dedicated to deploying NGA in areas not served by the market, e.g. as a joint venture of multiple municipalities or in partnership with private operators.

Source: Commission Staff Working Paper on National Broadband Plans - SWG(2012) 68 final/2

# Policies to Promote Broadband in Albania

## Coordination of Stakeholders

**Objectives**: The need to ensure a holistic approach to ICT development 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.

**Actions**

* 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

**Responsibility**

* Ministry of Innovation and ICT

**Timetable**

* 4Q2012

In recognition of the widespread benefits from ICTs and Broadband, the Government of Albania recognizes that it has a critical role to play in setting the framework for collaboration. However, regional, local, municipal and city authorities should also collaborate with each other and with national government to ensure more cost-effective and efficient infrastructure provision, including through the imposition of open access obligations where public funds are invested. By working together, an effective mix of connected national, regional, wide area, city and last-mile networks spanning the country can be established.

Similar to what was stated in the March 2012 European Commission Staff Working Document on National Broadband Plans;[[73]](#footnote-73) the Albanian Government also recognizes that Broadband has an impact on the entire public sector and society as a whole. Given that multiple parties, including several government entities as well as local authorities and municipalities as well as the private sector will be involved in making Broadband available of the people of Albania, Government considers that careful planning of Broadband investment and infrastructure rollout is essential and an issue that requires input from different lines of responsibility within government and more broadly public administration. It is therefore essential to coordinate the measures taken by central government, local authorities and municipalities, the NRA and other relevant authorities, including authorities in charge of broadcasting.

Central government, through the National Rail Company, the National Electricity Company, the National Road Administration, and the Postal Office, owns infrastructure. Government also manages spectrum, which is a limited resource. In addition, central government is responsible for the actions required to improve the efficiency of its own administration through IT, and owns a government Broadband network for inter-government communications and projects.

Municipal administrations, municipally owned city networks, energy companies and the housing companies together are players in the Broadband market in several respects and shall be responsible for drawing up municipal IT infrastructure programs.

AKEP is the institutional unit that will continue to be in charge for creating a regulatory environment for the private and public sector in the development of Broadband infrastructure and services. Both MITIC and AKEP will be responsible for the implementation of the policy in general, whereas NAIS will work to develop e-government.

Line ministries, such as health, education, agriculture etc. also play an important role by supporting the development of content on their online services and using Broadband to improve these services.

The Government of Albania recognizes that countries across Europe have set up advisory groups and committees to coordinate Broadband activities and implementation.[[74]](#footnote-74) In order to promote a continuous understanding of the roles of various stakeholders both public and private, Government will also promote consultation amongst all stakeholders, including national and regional government agencies (such as the Ministry of Health, Education, etc. as well as local authorities and municipalities) in advance of policy setting and implementation by setting up 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.

## Regulatory measures to stimulate expansion of Broadband

**Action**: the Government of Albania proposes a number of regulatory measures to stimulate investment in Broadband, including:

* the definition of a universal access and service strategy aimed at promoting investments in more remote areas which may include Broadband
* streamlining spectrum legislation and allocations and creation of better conditions for spectrum trading and sharing
* the completion of competition regulation to enhance effective markets, including:
* the adoption of regulations to promote open access to passive infrastructure, especially where backbone projects are co-financed by government
* the adoption of regulations to allow more consideration of active infrastructure sharing (subject to compliance with general competition rules)
* facilitation of building permits and rights of way authorizations

**Responsibility**

AKEP

**Timetable**

2012-2015

There is a great need for investment, while demand from customers and willingness to pay for future services remains uncertain. To support the required investments it is therefore important to have regulations that are long-term and predictable and that give market players an incentive to invest.

Government recognizes infrastructure will need to be expanded and upgraded in the sector, which will result in the need for significant investments. The fixed networks need to be expanded to provide more country-wide coverage and to bring coverage closer to the users and also needs to be updated to be able to offer higher speeds. Wireless network players will also need to continue to make large investments to expand coverage, and offer higher speeds and better coverage. Mobile operators will need to consider greater numbers of powerful radio links to base stations so that high speeds can be delivered to households and businesses. Right now there is also a need for fiber backhaul so as to provide more capacity to networks, be it fixed or mobile.

Similarly to tools that have generally been used during the last two decades in countries around the World to promote universal access to voice and basic data services, the Government of Albania considers that tools other than public financing tools should be considered in the first place to extend access. Public resources are scarce and thus before using scarce public resources, all available non-investment instruments, including regulatory reform, will be analyzed and implemented as appropriate.

It is only by creating the tools necessary to allow market players to compete that markets will be able to function effectively and efficiently and the ICT sector will be able to offer increased access to services and thus effectively contribute to economic growth, innovation, and technical development. This will have a positive impact on the framework in which both businesses and consumers function as such measures create more choice in terms of supply, as well as influencing prices.

To meet the targets and providing the market with the necessary conditions to deliver services and to invest in Broadband throughout the country, the Government of Albania proposes a number of regulatory measures, including the completion of competition regulation to enhance effective markets, the definition of a universal access and service strategy aimed at promoting investments in Broadband in more remote areas, and the promotion of open access strategies, especially where backbone projects are subsidized by government.

Administrative barriers for rapid infrastructure deployment will be addressed to avoid creating hindrances to build-out, in particular for erecting new mobile sites, where operators should not be confronted with significant administrative procedures and face long approval processes.

It is also proposed that the AKEP will be assigned to investigate how suitable frequency bands for electronic communications can be used for increased availability in areas that lack access to Broadband or have Broadband of low capacity and quality.

The level of functional access to Internet within the universal service obligation will also be reviewed. In addition, specific measures may differentiate in treatment between “black” areas (where platform-based competition exists and good Broadband service is expected), “grey” areas (where at least one service provider is expected to offer service, though quality may be inconsistent), and “white” areas (where service is not available). In common with the UK and other European countries, government investment resources will focus on the market failure of white areas, with regulatory initiatives and incentives for investment also being defined for grey areas, particularly given geographic challenges and issues with density and levels of poverty of the population.

In terms of access to passive infrastructure, an open access regime shall be promoted, recognizing that in some countries, the public authority(ies) both own and operate the passive infrastructure whilst in others, the public authority(ies) will own the network but lease the operation of the passive infrastructure to a private operator for a fixed term following an open call for tender and on condition of open access for service providers.

Good practice shows that an open access model is generally considered the most appropriate model to adopt, particularly where government intervenes in an already competitive marketplace. In this model, although the public authority(ies) can own the passive infrastructure, it is considered good practice to allow competing service providers to offer their services over it.

Allowing for more consideration of active infrastructure arrangements (subject to compliance with general competition rules) will also be addressed given the recognition that such infrastructure sharing may reduce the cost of rolling out Broadband services to less densely populated areas, currently not covered by any Broadband technology.

## Technology Options for Broadband

**Policy:**

* Promote Technological Neutrality
* Promote Infrastructure Sharing and Co-deployment
* Enhance economic efficiency in technology choice under public intervention mechanism

**Actions:**

* AKEP shall complete its Broadband Mapping Activity during 2012 to display the availability of retail Broadband connections at one or more given speeds
* AKEP shall also be responsible to gather data regarding planned commercial investments
* AKEP shall be responsible to identify and set up a register of existing civil infrastructure as well as alternative infrastructure – including, for example, rail and other transport networks as well as energy, water and sewage networks with the aim of identifying passive infrastructure including ducts or masts (“holes or poles”) which could be used to “piggyback” telecommunications services at lower cost
* as well as government-owned capacity which can be used to support national Broadband network roll-out
* AKEP shall be responsible to identify all possible potential suppliers

**Responsibility:**

AKEP

**Timetable**:

2012-2015

The Government of Albania supports a technologically neutral policy approach and recognizes that access to Broadband may be delivered through wired means of infrastructure either through the fixed telephone network, a cable television network or a fibre-based network, or it may be delivered wirelessly, for example through a wireless network or via satellite, especially in the more remote areas.

Government also recognizes that specific and targeted efforts are needed to ensure that similar opportunities exist for consumers – be it households or businesses – throughout the country, including in rural and more remote areas. To this end, Government through AKEP will complete its Broadband Atlas which is essentially a baseline audit, and continue to map both existing high bandwidth provision by existing operators (including territorial coverage, speeds, and prices) and also include future investment plans in new networks or extension of existing networks or upgrading of services.

The map should show clearly areas in which there is no existing or planned commercial or government owned or managed Broadband provision, as well as areas in which there is Broadband but provided by a single operator, and areas in which there is genuine competition for the provision of Broadband services.

Where subsequent to analysis of this data, public intervention is seen to be required, economic considerations will be taken into consideration to select a specific technology, especially where a specific technology is shown to be the most efficient way of delivering a given quality of service within the context of the public intervention. Within this context, government shall consider both wired and wireless solutions including fiber optic as well as satellite solutions to achieve full basic coverage.

It is clear however that technology will continue to develop and influence technological solutions, as well as needs and demands of end users, including in terms of speed and capacity. Technological developments will undoubtedly also influence the cost of deployment of Broadband networks.

Mobile Broadband is a relatively new technology in many countries, especially within the SEE region. Although, current take-up levels are likely to be low, it is expected that mobile Broadband will play an important role in future Broadband provision. There are a range of definitions for mobile Broadband services, including, amongst others, a wider definition of 3G mobile services and a more narrow definition of dedicated mobile data services only.[[75]](#footnote-75)

# Resource Implications

## Models of financing the implementation of the NBP (Backbone and other solutions)

**Actions:**

* Identify and quantify the cost of implementing technological solutions to meet targets including through public consultation
* Identify all available sources of funding – including grants, loans, future revenue streams and even partner in-kind contributions - and create a financial plan for the country
* Consider the establishment of a National Broadband Network through PPP subject to open access obligations.

**Responsibility**:

Ministry of Innovation and ICT

AKEP

ASHI

**Timetable**:

2012-2013

Current activities in the ICT field and in the establishment of Broadband in particular are generally financed through both public and private sector investment by national government and local authorities and municipalities, as well as by fixed and mobile network operators, alternative operators, cable operators, regional telecommunication providers, utilities and public-private partnerships. The interests of these layers of players need to be balanced, whilst at the same time focusing on the need to achieve the Broadband targets.

In addition to market liberalization, the government of Albania is considering regulatory instruments and tools aimed at increasing investments and access to telecommunications infrastructure in high-cost rural and low-income areas.

These could include, either in isolation or in combination:

* Universal service financing to provide partial subsidies for programs largely aimed at stimulating private sector provision of infrastructure in rural or unserved regions;
* Other financing methods and project initiatives by national, state and local governments, cooperatives, NGOs or private operators to put in place programs aimed at expanding coverage in high cost rural areas and at increasing demand among lower income consumers;
* State-mandated and controlled approaches using cross subsidies and other financing mechanisms;
* minimizing and/or removing any telecoms-specific taxation;
* developing investment friendly policy guidelines (including, for example, transparency, enforceability and incentives for investment).

The Government of Albania recognizes that Broadband network architecture consists of international connectivity, the domestic backbone network, and the subscriber access network. Construction of domestic and international backbone networks is essential to ensure that high-quality, low-cost connectivity is available domestically and internationally.

Allowing for the construction of a national government backbone network allows connectivity among major agencies and institutions, while providing infrastructure which may complement and complete commercial subscriber network elements. Within this context, Government is also considering awarding a concession to a company or a Consortium of companies to establish, install, develop and manage the infrastructure of a National Broadband Network in the Republic of Albania through a public private partnership model.

The Albanian Government will be one of the users of such infrastructure, acquiring supporting communications services for state institutions, in accordance with the services of the Governmental network. The successful bidder is not expected to duplicate the existing services, unless it is favorable for technical or commercial reasons and should obtain all necessary licenses including individual authorizations for the use of frequencies, as well as rights of way to allow the provision of electronic communications services in the Albanian market. Open access to this network will also be promoted to provide existing operators with additional Broadband infrastructure options throughout the country.

The Government of Albania recognizes that there is a choice to be made both in terms of the choice of the sources of funding and in terms of financial instruments. Financial instruments may include individual loans, intermediated loans, structured finance facilities, risk sharing finance facilities, or guarantees. Obviously the choice of tools will also depend on the availability of funds, which can come from either public or private sector investment or a mix of public and private sector investment.

As suggested by the European Commission in its 2011 Guide to Broadband Investment Models, an appropriate combination of investment models from different stakeholders should be used so as to be able to match the needs of stakeholders and deliver a long-term solution for end users.[[76]](#footnote-76) Private sector investment may come from within or outside the telecoms sector, and may include funding from electronic communications or broadcasting operators or service providers, institutional investors, utilities, end users, content providers or equipment manufacturers or providers.

In terms of the choice of investment model, a number of options are available. [[77]](#footnote-77) Long-term models may be seen to work best for financing high speed infrastructures such as passive or backhaul infrastructure which is made available to a wide range of service providers, and in addition seen to be more effective in promoting competition and allowing the delivery of cheaper and better-quality services for end users.

Although the Government of Albania will consider the delivery of benefits to end users over the long term as a key criterion in making that choice, as provided for in the European Commission Guide to Broadband Investment Models of September 2011, it also recognizes that other models may be available and that all options must be analysed so as to provide the best solution for Albania.

Government will also consider other ways to increase the flow of private capital into   
Broadband projects and rollout. Government will thus promote the use of innovative financial instruments such as credit enhancements, project bonds or minority stake in the equity of project companies as suggested in the 2012 Commission Staff Working Document on the Implementation of National Broadband Plans.[[78]](#footnote-78)

Another approach Government may consider is to ask end users requesting better connectivity to contribute to the fixed costs of network roll out in areas where normal ARPUs (Average Revenue Per User) do not allow for commercially viable deployment. Such payments could give cause for tax deductions by users.

## Demand Creation Policies

**ACTION ITEMS:**

**[AKEP/MIICT] to be responsible to map all likely government funded users of higher bandwidth services including schools, hospitals and surgeries, and other public service centers by 2Q 2013.**

**Development of services requiring Broadband:**

* work with Ministry of Health to further develop e-health services – **Ministry of Innovation and ICT together with ministry of Health**
* work with Ministry of Education to assist local universities to further develop e-teaching services - **Ministry of Innovation and ICT together with Ministry of Education**
* work with Ministry of Education to create framework for software development services - **Ministry of Innovation and ICT together with Ministry of Education**
* work with Ministry of Finance to further develop e-taxation - **Ministry of Innovation and ICT together with Ministry of Finance**
* work with Customs to further develop electronic customs procedures - **Ministry of Innovation and ICT together with Customs**
* work with Postal Office to further develop access points **- Ministry of Innovation and ICT together with Albania Post**

**Definition of requirements and provisions for persons with special needs (person with disabilities, youth and women, elderly, etc.) - Ministry of Innovation and ICT together with Ministry of Education**

**Introduction of government subsidy and voucher programmes for schools, libraries, and other anchor institutions - Ministry of Innovation and ICT together with Ministry of Finance**

**Application of preferential or discounted tariffs for anchor institutions as well as for individual users to promote demand - Ministry of Innovation and ICT together with AKEP and operators**

**Marketing the uses of Broadband in regions and municipalities through a targeted ICT awareness campaign and running e-literacy and digital awareness programs - Ministry of Innovation and ICT together with AKEP ad ASHI**

The Government of Albania recognises that there are a number of elements that affect Broadband take-up levels both in terms of the present and in terms of future use of Broadband. These may include:

* Level of Income;
* PC penetration;
* Smart Phone Use and penetration;
* Network Coverage.

The Government of Albania recognises that when government entities on national, regional, and local level define policies for uptake, they also become major users of communications services themselves (e.g. through school connectivity and other education projects, government infrastructure or intranet projects, e-procurement, online taxes and public records). It therefor believes that by further articulating government demand uptake can be driven and commercial risk of investments can be reduced. Within this context, a first important step is to map all the potential users of government-funded ICT services, including schools, hospitals, postal offices as well as other public service centres so as to get to know and understand their stated priorities and the scope for cooperation.

The Government of Albania will seek to further introduce measures to promote awareness and demand, notably through e-literacy awareness programs, targeted marketing programs and the continuation of institutional programs and projects such as e-government, provision of Broadband in public facilities such as schools and health centres, the introduction of e-applications such as e-health and e-education, the definition of requirements and provisions for persons with special needs such as person with disabilities, youth and women, and the elderly.

Government will also consider the use of government subsidy and voucher programmes, as well as the application of preferential or discounted tariffs to promote demand, particularly in the more rural and remote areas and amongst population groups with less income.

Within this context, government will work with regional, local and municipal planning and governing authorities to actively promote the message that economies and communities that are unable to harness fully the benefits of ICT are less likely to remain sustainable or to make a successful transition to the knowledge-based economy/society.

Government will also work with AKEP as well as with national, regional and local authorities to sensitise such authorities to the need for any new building developments to meet appropriate standards in respect of wiring/ducting.

# Accountability, Monitoring and Evaluation

In order to assess progress towards achieving the goals of the strategy, government shall develop and carry out due diligence checks on all partners and establish appropriate dispute resolution mechanisms.

Indicators to monitor Broadband Development in Albania shall include:

* Increased access to Broadband (number of subscribers and users, Broadband penetration rate, increasing rate of penetration)
* Extension of coverage area of Broadband services (areas covered by these services)
* Increased competition (competition in terms of retail and wholesale sectors)
* Reduction of price of Broadband services (splitting by larger cities and less developed areas)
* Increased quality of Broadband services (seeing consumer complaints and evaluations)
* Increased number of Broadband applications and their use, content and services, (impact of Broadband use in online activities of Broadband users, the use of Internet technologies and the growth of data downloaded from the Internet)
* Increased use of Broadband in education and scientific research (will be measured by the use of Broadband in schools, vocational and training sectors)
* Increased use of Broadband in health (the use of Broadband by practitioners, specialists and hospitals)
* Increased use of Broadband to deliver government services (will be measured by the use of Broadband by government and institutions official pages to be accessed by the users)
* Increased use of Broadband by businesses (by number of employees using Broadband)
* Increased use of Broadband by the community (population).

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   http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0472:EN:NOT. [↑](#footnote-ref-1)
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4. 2010 Policy for Electronic Communications in the Republic of Albania, available at: [↑](#footnote-ref-4)
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6. The Broadband Commission for Digital Development, co-sponsered by ITU and UNESCO, has set four clear, new targets for making broadband policy universal and for boosting affordability and broadband uptake, being: Making broadband policy universal.; Making broadband affordable; Connecting homes to broadband; and, Getting people online. [↑](#footnote-ref-6)
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