

The Ministry of Communication and Information Technologies of the Republic of Azerbaijan



Information and Communication Technologies for Sustainable Development

Address: 33, Zarifa Aliyeva str., AZ 1000, Baku, Azerbaijan Tel.: (+99412) 498 58 38 Fax: (+99412) 498 79 12 E-mail: mincom@mincom.gov.az URL: http://www.mincom.gov.az



Development and progress are the primary objectives pursued by every state. There are many methods and means to accomplish such objectives. The improvement of existing communication networks and development of new state-of-the-art communication networks contribute significantly this process. Information to Communication Technology (ICT) is deemed as being crucial for achieving sustainable economic development. As a result of a carefully planned approach the Government of Azerbaijan has achieved noteworthy results, both in developing the ICT sector and by implementing innovative and advanced technologies in many fields of the economy. Azerbaijan has consistently developed its e-government and has, thanks to its innovative approach and preparedness to face new challenges, gained invaluable experience through the introduction of these technologies which simultaneously has improved the general quality of life in Azerbaijan significantly.

Economic and political stability provide the essential foundation for a country's dynamic growth. Economic and political reforms taking place in Azerbaijan together with the process of integrating its economy into the international economic system, has resulted in achieving a high economic growth-rate and democratization of society in Azerbaijan. During recent years, Azerbaijan has ranked as fastest growing country in the world if measured in terms of GDP growth. GDP growth has averaged 24% per annum in Azerbaijan during this time.

According to the Global Information Technology Report 2007-2008 of the World Economic Forum, Azerbaijan ranks 67 out of 127 countries and in its leading position among the CIS countries has left many major economies behind.

The United Nations e-Government Survey 2008 ranked Azerbaijan as first among the countries of the southern Caucasus and in position 89 among the 182 surveyed countries.

In Azerbaijan the ICT sector currently is the secondmost rapidly developing sector of the national economy and thus immediately follows the energy sector. Revenue growth in the ICT sector has in recent years achieved a rate of 30-35% p.a. This trend is expected to continue, which means that it will match the revenues generated by the energy sector within a few years and is forecast to overtake it during the period 2018-2020. Within the nonoil sector, the ICT industry is the second largest generator of tax revenues, thereby following the construction industry. Investments in telecommunication and postal communication in 2008 amounted to \$270.5 million, split into \$52.2 million and \$218.3 million for state-run and privately-owned companies respectively.

The country thus is creating long-term opportunities for the manufacture of high-tech equipment. In 2008 alone, manufacturing services generated in the ICT sector displayed an increase of 28.3%.



ICT and Postal sectors revenues

ICT and Postal Sectors Revenues, State and Private Sectors



E-AZERBAIJAN

Having passed the "Information and Communication Technologies Strategy for the Development of the Republic of Azerbaijan" in 2003, Azerbaijan declared the transition into the information society as its key priority.

To implement this strategy, the "State Program on the Development of Communication and Information Technologies for the years 2005-2008 (E-Azerbaijan)" was adopted in 2005. This state program, which has been successfully implemented, included numerous objectives such as structural and economic reforms, upgrading of infrastructure, establishment of a new regulatory environment and increased public awareness and use of ICT. A new state program which has already been drawn up is planned to extend the current e-Azerbaijan program for the period 2009-2012.

In 2007, Ilham Aliyev, President of the Republic of Azerbaijan, declared ICT as a priority sector of the economy and emphasized the importance of the use of ICT in all sectors of the economy.

ICT is also used widely in the education system. At the time when the new "Program for the Provision of Internet Access to Schools during the Period 2008-2012" was approved by the President in 2008, the "State Program for Equipping Schools with Information Communication Technologies during the period 2005-2007" had already been successfully implemented.

The work performed under the Program has resulted in ninety two percent of all schools having already been equipped with sufficient computers to reach a ratio of 1 PC to 29 schoolchildren in Azerbaijan It is expected that by the end of 2012 all schools in Azerbaijan will have Internet access.

The use of ICT in the public sector has increased during the past years as is visible from the following examples: In January 2008, the Ministry of Taxes launched and put into operation its "one-stop-shop information system" for the registration of legal entities. Not only has it resulted in shortening the registration period for new legal entities to three days, boosted efficiency and transparency of the activities of state authorities but also created more favorable conditions for entrepreneurs. The government's work in this respect was lauded in the 2009 report of the World Bank on doing business in Azerbaijan by referring to Azerbaijan as "The Top Reformer of the Year".

A few further examples will show what progress has been made: The Ministry of Taxes accepts tax returns electronically, provides advice on taxation issues by telephone and electronically through its webpage and has also established public information access centers. In 2008, the state's Student Admission Commission and the Civil Service Commission launched the possibility for prospective students to apply online. Furthermore, the State Social Protection Fund has created its corporate information system, the Ministry of Justice is actively working on creating a Population Registration System and the Ministry of Health has introduced "Electronic health cards".

At the moment Ministry of Communications and Information Technologies (MCIT) is carrying out a project on establishing an e-signature system called Public Key Infrastructure. After completion of this project a solid infrastructure for the implementation of egovernment will have been put in place.

ADVANCED TECHNOLOGY BOOSTS DEMOCRACY

The e-government in Azerbaijan, still in the process of development, aims at increasing the efficiency of state authorities and governance by the wide-scale use of stateof-the-art ICT as well as further improving the quality of the relationship between government and society in general.

Information technology opens additional opportunities for interaction between state authorities and citizens and raises the public awareness of government activities, thus creating greater transparency. The government is actively using advanced technologies to reinforce democracy (especially visible during elections). An Elections Information Center was established in Azerbaijan in the year 2000 to fully automate the preparation and dissemination of information during election campaigns. Over time, the State Automated Information System for Elections has been applied efficiently for the ensuing parliamentary and presidential elections. This system has become an integral part of democratic elections and an important tool in political and social processes. Azerbaijan was the first country in the world to install online web cameras at polling stations during the elections of the president of the Republic of Azerbaijan whereby the election progress could be broadcast on internet. International institutions praised this use of web cameras.



Number of PCs per 100 inhabitants

TELECOMMUNICATIONS

The telecommunication services market has developed strongly in Azerbaijan during the past 5 years. New technologies have become a platform for new services. In order to meet the increasing demand and to modernize the existing public switched telecommunication network (PSTN) the capacity of the PSTN has been increased by 50%, thereby reaching a national penetration level of 16 fixed telephone lines per 100 inhabitants on average. Digital switching has already reached a level of 85%.

By the end of 2008 and as the first CIS country, Azerbaijan was able to provide telecommunication services to all residential areas in the country. Today villages and settlements having only 2 to 3 households have the possibility to obtain access to up-to-date telecommunication services. This achievement thus can successfully achieve the national "100 Phones for 100 Households" Project. Its successful realization will allow a doubling of telephone penetration and expand broadband communication services further. Currently fixed telephone lines penetration has reached 65.8 per 100 households. Another first for Azerbaijan among CIS countries was the initiation of the installation of the NGN *(Next Generation Network)* platform, which can be seen as a "leap-frogging" development.

The cellular communication market of Azerbaijan has been developing rapidly and remains one of the most attractive investment segments of the national telecommunication market.

Over the past five years, mobile coverage has reached 100% of the population on 80% of the territory of the country.

The cellular communication market of Azerbaijan is well developed compared to that of most developing countries. Currently there are 75 mobile cellular subscribers per 100 inhabitants and revenues from mobile communications account for approximately 65% of the total ICT sector revenue.

As mobile penetration increases, the mobile content market is also increasing in importance for GSM operators. That market already accounts for approximately 98% of all cellular communication (including that on the CDMA standard).

Mobile Cellular Subscribers per 100 inhabitants



INTERNET

Demand for bandwidth globally is expanding exponentially due to the growing number of people using on-line media to gather information by downloading multimedia content and engaging in social networking, businesses redefining their business models and the overall contribution by the development of the "esociety". The market for data transmission in Azerbaijan has increased almost 6.3 fold, with a compound annual growth rate (CAGR) of 45% during the past 5 years. A sevenfold drop in the price of internet access has led to a significant increase of internet users and especially broadband users. Currently internet penetration in Azerbaijan has reached 37% of the population with connection speeds at the international bandwidth of 10Gbps, which is more than is available in any other country in the region.



International Internet Bandwidth

Internet users per 100 inhabitants



SPACE INDUSTRY

The state programs and activities implemented by the government in recent years for developing the non-oil sectors have uncovered wide ranging opportunities to diversify the economy and develop new industries.

The advantageous geographic location of Azerbaijan has economic and political benefits, all of which enable the country to play an international role as information hub between the West and East. This increases the country's economic potential and also creates the need to ensure information security required when developing space technologies. In November 2008, Ilham Aliyev, the President of the Republic of Azerbaijan signed a decree to establish the space industry including launching of telecommunication satellites. Azerbaijan is planning to launch two telecommunication satellites during 2011-2012 offering coverage for countries in Eastern Europe, North Africa, CIS, Central Asia and Eastern Asia. By entering the international satellite market, Azerbaijan will provide services for TV and radio broadcasting, internet, data transmission, international telephone traffic exchange and many other advanced satellite applications.



REGIONAL INNOVATION ZONE

To boost the development of an innovative environment for designing and implementing information and other technologies, positioning Azerbaijan as an IT products exporting country, stimulating development of small and medium sized enterprises, attracting foreign direct investment and developing its human resources, the Government of Azerbaijan has initiated a Regional Innovation Zone Project (RIZ) - a special economic zone - for ICT activities.

It is also planned to establish innovation and research centers and an International University of Information Technology within the RIZ. The proposed RIZ concept is expected to have an enormously positive impact on the economy of Azerbaijan and will generate significant direct revenues. Major social benefits would be generated both for the urban and rural populations by the positive multiplier effect on numerous economic sectors (for example, tourism, transportation, and banking).

It is expected that revenues generated by the ICT sector will match and then exceed those of the energy sector by the year 2020.

WEST-EAST SUPERHIGHWAY

Today, citizens of most Eurasian countries share a common problem in connectivity and have become part of a "digital divide". Undersupply of international connectivity resulting in low broadband penetration levels in the region has created a risk of "isolation" from the "connected world" of today. It has become apparent that the creation of suitable infrastructure to provide international connectivity is imperative for the region.

Azerbaijan has initiated the "Transnational-Eurasian Information Super Highway", which, by passing through the territories of Eastern Europe, CIS, Central Asia and as well as Afghanistan and Pakistan will bridge the existing two extremely developed information networks of Western Europe and that of the countries of the Pacific. The realization of this project will contribute significantly to the development of a knowledge-based economy for all participating countries and to overall the socio-economic development for the whole region.

This initiative was presented during the Baku Regional Ministerial Meeting held in November 2008. As a result of the meeting the Baku Declaration on the "Transnational-Eurasian Information Super Highway" was adopted. It is expected that this initiative will be included in the agenda of the UN General Assembly to be held in September 2009.



The world has entered the era of a global information society. That means that the technology is becoming the primary source for rapid development due to the knowledge-based economy becoming the main driving force for all development. Therefore, Azerbaijan must continue to secure its place in this new globalized world by successfully developing innovative sectors of its economy.