

Azerbaijan Leading the Region in ICT

InterComms talks to Professor Ali M. Abbasov, Minister of Communications and Information Technologies of the Republic of Azerbaijan, on the successful development of the Azerbaijani ICT industry



Professor Ali M. Abbasov, Minister of Communications and Information Technologies of the Republic of Azerbaijan.

Professor Ali M. Abbasov is the Minister of Communications and Information Technologies of the Republic of Azerbaijan, a position he has held since 2004. He has had a long and remarkable career in academia, education and the public sector. His recent experience includes posts as Director of the Institute of Information Technologies of the National Academy of Sciences of the Republic of Azerbaijan (1991-2000), and Rector of Azerbaijan State Economic University (2000-2004).

As Minister, Prof. Dr. Ali Abbasov pays special attention to the acceleration of transition to the information society and formation of the digital economy, application of e-government solutions and new technologies, development of broadband services and human resources. He is an initiator of several national and regional projects and oversees their implementation. He also played a special role in the establishment and further development of the internet in Azerbaijan.

Prof. Abbasov has lectured and conducted research in such fields as the digital economy, network design and applications, and artificial intelligence. He did his PhD in microelectronics at the Academy of Sciences of Ukraine. As a professor of information and computer sciences at the Azerbaijan University of Technologies he serves as a full member of the National Academy of Sciences of the Republic of Azerbaijan and as a fellow of the IEEE. He was a member of the National Parliament of the Republic of Azerbaijan (2000-2004), a member of the Parliamentary Assembly of the Council of Europe (2001-2004), a member of the Strategy Council of the Global Alliance for ICT and Development (since 2008), and Commissioner of the Broadband Commission for Digital Development (since 2010).

Q: ICT has seen 2.5-3 times revenue growth for the years 2004-2011. At the same time, share of private companies in the market reached 80%. How did the state policy contribute to obtaining these achievements?

A: Development of the ICT sector in the country has been fulfilling in accordance with the "National Strategy on Information and Communication Technologies for the Development of the Republic of Azerbaijan in the years of 2003-2012" and State Programs of "E-Azerbaijan" covering the years 2005-2008 and 2010-2012, which was accepted for implementation of the National Strategy. Activities considered for wide application of ICT in different fields are also underway within the framework of about 20 State Programs.

In recent years the ICT sector has been developed and supported, and it has been achieved thanks to state care. In order to stimulate development of this sector, important documents have been signed by H.E. President Ilham Aliyev in 2012. "State Foundation of Information Technologies Development" has been established and new tasks have been put forward before the Government. The main purpose of the State Foundation is involvement of investments and new financial resources to the perspective and rapidly developing

- ICT companies. Facilitating implementation of public policy in the field of ICT, supporting ownership activity, stimulating innovation and scientific-research projects and development of state-of-the-art infrastructure, providing financial assistance for small and medium-size entrepreneurs and involving local and foreign investments in this field are also listed among the main purposes of the Foundation. Due to the measures, undertaken by the State Foundation, it will be possible to develop production-oriented activity in the field of ICT.

As a result of future activity of State Foundation and Regional Innovation Zone (RIZ), which is being established, the ICT sector will be diversified, new companies will emerge and revenues of the companies, operating in this field, will increase several-fold.

Another event, as important as the establishment of the State Foundation, will be the creation of an ICT techno-park. It is planned to realize the creation of a new techno-park within the framework of the RIZ project. Successful implementation of the mentioned activities will stimulate intellectual business and innovative entrepreneurship. As a result of joint activity of State Foundation and techno-part in the field of ICT, it will be possible to bring a high quality ICT sector to a new arena. The documents that have been adopted so far set forth provisions on the main development trends of ICT: liberalization and creation of effective regulation mechanisms in the sector; modernization of ICT infrastructure on the basis of new technologies; development of e-government and e-services, as well as, provisions on state policy have been formed and carried out in the country according to these directions.

The main purpose of public policy in the field of ICT is to provide transition to the information society, create and develop an information and knowledge-based, competitive economy and arrange participation of citizens and social institutions in the management process. At the same time, the creation of RIZ and special regime for this field and implementation of regional projects are the main components of the ICT policy.



Assembling computers in "KUR Electronics LTD" factory, Azerbaijan

The measures undertaken are yielding results according to the above-mentioned directions. Thus, the country's ICT sector has been expanding for two times in every three years, with an average growth rate of 25-30%. Volume of the incomes in the sector have increased 13% in 2011 and was approximately 1.7 billion USD. 65 % of the population are internet users and more than 30% are broadband internet users. The number of computers per 100 inhabitants is 20 units. The mobile sector has been rapidly developing; application of new technologies, as well as 3G and 4G services are expanding. Currently there are 110 mobile subscribers per 100 inhabitants. Special weight of the private sector in development of the ICT sector has been increasing year by year. As you noted, now the share of the private sector in the development of ICT is equal to 80%.

Naturally, great public support, properly defined long-term strategy and well-grounded public policy play an important role in the achievement of these developments.

Q: In the last 10 years 2.3 billion USD has been invested in the ICT sector, 21% of which belongs to foreign investments. Why is the Azerbaijan market so attractive to foreign investors?

A: Today I can say with certainty that a legal base regarding the protection of foreign investments in Azerbaijan exists, a favorable business environment has been created in all spheres of the economy. State registration of the entrepreneurs began to be implemented by a "one stop shop" system and the period of state registration of the business enterprises was reduced to 20 times by this application and was provided within 3 business days. Also, the number of registration procedures of the legal entities has been reduced from 13 to 5. Currently, this process takes up to 15-20 minutes with the application of e-services. It is an example of special care, shown to the development of business. There is a mature bank, transport and other service infrastructure for foreign investors' and companies' activities in the country.

Certainly, application of innovations, state-of-the-art technologies, advanced experience and effective business models, created in the European countries are important for us; because application of innovations will fully meet the interests of consumers by rendering high quality services.

Azerbaijan's forcing its way through integration into Europe in the policy and measures are undertaken in this regard as performing institutional reforms in this direction, conformance of legislation and expedient events, performed in application of modern standards under legislation, application of European standards in the field of ICT and involvement of European companies and investments to this sector. Thus, information is provided in the world arena and request of proposals is submitted to the advanced companies in order to create transparency about procurement procedures concerning implementation of projects and support the participation of foreign companies.

► Today, 10 of the world's top 20 ICT high rated companies such as Microsoft, Cisco Systems, Hewlett Packard, IBM, Apple Computer, Intel, Oracle, Google, Nokia-Siemens Networks and Ericsson are operating in Azerbaijan and this process stimulates a direct foreign investment stream to the country. As a result, Azerbaijan holds 39th place among 144 countries for the rating of "Capacity for innovation" according to the estimations of the "ICT Development Index" report of Davos World Economic Forum. Also according to the "Global Competitiveness Index" our country has improved 9 points and reached 46th place and preserved its leadership among CIS countries.

It is the result of activities, performed in propagation of investments in the country that investment to the amount of 525.5 million USD has been put in this sector in 2011 alone for the first time during last 10 years and this figure is twice as much than the previous year, and share of investments in the total investment, put towards the country's economy, varies approximately 3-3, 5%.

Q: How has Azerbaijan contributed in joining the projects "Trans-Eurasia Super Information Highway" (TASIM) and "Europe-Persia Express Gateway" (EPEG)? How do you assess the potential of Azerbaijan as a "technological hub"?

A: The project of "Trans-Asia Super Information Highway" (TASIM) is an important regional initiative whose purpose is to lay transnational fiber-optic cable line covering the Eurasian countries mainly from Western Europe to Eastern Asia.

Implementation of the TASIM project from the strategic point of view will consist of two stages. In the first stage the leading regional countries and operators will create the main internet transit infrastructure connecting the West and the East. This transit infrastructure will enable TASIM to be the project which will meet the requirements of the commercially beneficial and highly growing international IP internet transit market. It is considered to complete this process at the end of 2013.

In the second stage the TASIM will provide connection at a suitable price to the Central Asian countries, as well as the Eurasian countries, which have no access to the sea, by using transit infrastructure. There will be established new fiber-optic cable lines according to the plans for development of the national telecom infrastructure. However, existing lines will be improved from the technological point of view and connected to the TASIM network. In the second stage the TASIM project will be realized in accordance with the mandate of the UN.

The project takes into account laying of the main transit line routed from Frankfurt to Hong Kong. This line will connect the biggest information exchange centers of Europe and Asia. The transit line will pass to Germany via China, Kazakhstan, Azerbaijan, Georgia and Turkey. Reserve North Transit Line will pass through Russia, Ukraine and Poland.

The Ministry of Communications and Information Technologies of the Republic of Azerbaijan initiated the

TASIM project during the ministerial meeting held in Baku on November 14, 2008 within the framework of the 14th International Telecommunication and Information Technologies Exhibition and Conference.

On December 21, 2009 the Resolution on the TASIM project was adopted at the 64th session of the General Assembly of the UN. Special role of the Republic of Azerbaijan is highly appreciated in coordination of project in the Resolution which was supported and adopted by consensus of 30 countries. It is planned to adopt the new Resolution at the end of 2012.

On July, 2011 there was the 1st International Seminar on TASIM in Azerbaijan with the participation of the leading telecom companies like China Telecom (China), Kaztranscom (Kazakhstan), Rostelecom (Russia), Turk Telecom (Turkey) and Pantel (European Union). As a result of this event the Secretary of the project has been established and operators have agreed to work out Memorandum of Understanding which gave detailed information about the establishment of TASIM Consortium.

The participation of Azerbaijan in the EPEG project enables to use Azerbaijan for establishment of transit route as a part of the strategy to evolve our country into a technological hub. We foresee that the participation of Azerbaijan in this project will improve connection of our country with the international internet. The participation in this project indicates the high technological level of Delta Telecom operator of Azerbaijan.

Generally, Azerbaijan has great geographical and commercial potential which increases evolving the potential of our country into a technological hub. TASIM, EPEG, Azercosmos and Regional Innovation Zones will support the implementation of these Projects, which, when implemented altogether, will connect vast territories with reliable, high-speed internet and all other communications. *(See photo over.)*

Q: Azerbaijan will launch its first communications satellite at the end of 2012. What does this achievement represent for the development of the country?

A: One of the strategic projects carried out by the government of Azerbaijan, as part of a wider plan of economic diversification and introduction to new industry fields, is the launch of a telecommunications satellite into orbit. Alongside the first telecommunications satellite, Azerspace-1, plans are already in place to launch a low Earth orbiting satellite in the near future and other telecommunications satellites in the upcoming years.

Information communication technologies have been declared to be the second priority area in the national economy, after the oil industry. Consequently, the share in this field of the economy is growing at an increasing rate, and satellite-based communications are coming to play an ever-greater role in this respect. As such, it can confidently be stated that the current and forthcoming satellite projects cannot be regarded as having only political or purely commercial aspirations, but

- are also sustainable and viable projects aimed at the long-term economic and social development of the country.

Therefore, Azerbaijan has decided to address these challenges by harnessing space tools since it possesses huge economic and intellectual potential for sustainable viability of the space industry. By integrating the advantages of space capabilities to the national development program, the government of Azerbaijan aims to bring the country to new heights in terms of its economic power, intellectual capacity and information security. Economic benefits and information security brought about by the utilization of satellite-based technologies will further enhance Azerbaijan's contribution to regional development.

The development and use of satellite communication services in the country has been promoted and accelerated through various legal and implementation measures. The State Program for the creation and development of the space industry, signed by the President in 2009, laid the foundation for the commencement and development of activities in this sphere. To materialize this political aspiration, Azercosmos was incorporated for commercialization of the space projects. Azercosmos is the first satellite operator in both Azerbaijan and Caucasus. It will provide satellite-delivered communication services and highly reliable satellite platforms to broadcasting, broadband, and government customers after the launch of Azerspace-1.

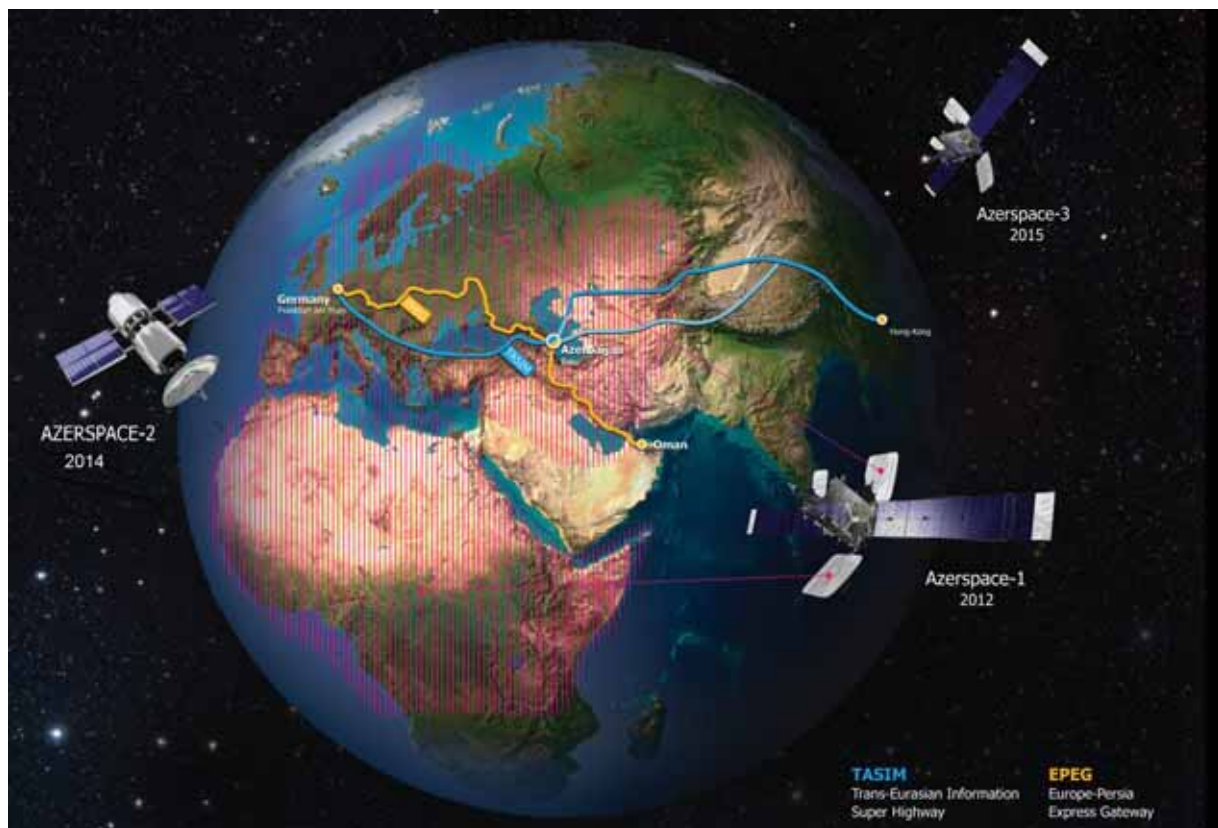
Azerspace-1 which is planned to be launched in early 2013 and is expected to stay in orbit for 15 years, is being

manufactured by the Orbital Sciences Corporation of the U.S. on a flight-proven Star-2 platform. The launch vehicle for the satellite is the highly reliable Ariane-5 of the French Arianespace. Azerspace-1 will be placed in the orbital slot, at 46 degrees east longitude and will have a wide coverage area including Europe, Africa, Central Asia, Caucasian countries and the Middle East.

The loan agreement for the funding of the launch of Azerspace-1 was included in the list of "The Best Financial Deals for 2011," by the magazine "Global Trade Review." Azercosmos was also able to secure a robust insurance coverage and highly competitive premium rate for Azerspace-1, at the lowest rate in the satellite insurance market since 1999.

Azercosmos also pays close attention to introducing remote-sensing programs and launching Earth-observation satellites, which carry great importance and value for national security and economic infrastructure. As a low Earth-orbiting satellite, the application fields of remote-sensing satellites in Azerbaijan have been studied in detail based on both local and foreign market research. Consequently, the relevant work has begun on building the satellite based on existing demand and within the required technical parameters.

Azercosmos has embarked upon a variety of space-related activities which will boost the innovation and scientific research capacity in the country, but also lead to the development of manufacturing capacity in space technologies, and expand international integration.



► **Q: The development of broadband internet is a major goal of several governments. How is Azerbaijan progressing in this field?**

A: In recent years internet services have been dynamically developed according to the process in the ICT sector. Now, licensing for internet services is not required which allows development of small and medium-size entrepreneurship. With a view to provide high qualified fixed network services for population and organizations, reconstruction of Automatic Switching Centre has been done and full digitalization of fixed network of the country has successfully been completed. "AzDatacom," "Deltatelecom" and "Azertelecom" networks linked all regional centres of the country and approximately 35% rural areas with high-speed internet and this opens wide opportunities for increasing the coverage level of ICT in the society, and application of e-services in the regions.

More than 40 ISPs operating in Azerbaijan serve in market condition, severe competition condition in Baku. Substantially, broadband internet services are provided by "Aztelecomnet" and "AzDataCom" state providers and several other private providers in other cities and regional centers of country. Currently, the number of internet users, computers and broadband internet subscribers per 100 inhabitants is 65, 20 and 30 respectively. In recent years, prices of broadband ADSL internet services have decreased multiple times and monthly payment for unlimited internet services with 1 Mb/s speed by connecting to ADSL technology is less than 5 AZN (around 5 Euros).

Based on international institutions in the field, development directions and the recommendation of European Commission, Broadband Commission on Digital Development of UN about broadband internet services by 2015 on the basis of international practice, the development target has been chosen in this field. With a view to avoid the existing problems, as well as reach targets mentioned, the main activity directions have been generally defined.

Currently, the Ministry of Communications and Information Technologies of the Republic of Azerbaijan and the Azerbaijan State Oil Fund are preparing the development strategy for broadband internet in Azerbaijan. Under the strategy it is planned to increase broadband internet subscribers to 20 per 100 inhabitants in 2015. The strategy also plans to reach internet access speed to 30 Mb/s, 10 Mb/s and 5 Mb/s in Baku city, the regional centers and rural areas respectively. 90% of households, in this strategy, are planned to get internet access too.

Q: Azerbaijan will be sending a large delegation to ITU's Telecom World in Dubai, including a large number of private companies. Why do you think this event is significant?

A: You are right that Azerbaijan will be represented with 30 of the country's leading companies at "ITU Telecom World 2012" to be held later this year. They are the companies that gained

great achievements on e-government, program provision, mobile and fixed communication, computer production, space industry and other directions of ICT. I am delighted to note that additional program provision in the ICT field and export of local computers produced are fulfilled. Simultaneously, the representatives of Cybernetic Institute of National Scientific Academy determined the scientifically-technical perspectives of this field, Information Technologies Institute and Research Centre on High Technologies of our Ministry will participate in this event besides the mentioned companies. This approach will enable to benefit maximum from "ITU Telecom World 2012."

The increasing political-economic reputation and investment involvement, as well as reports of reliable international centers of Azerbaijan to the region is the great example. An official Baku has been added in the list of countries implemented the most reforms of the world in the "Doing Business-2009" report of the World Bank. Simultaneously, our country has shown the best result in "Global Competitiveness Index" of the World Economic Forum formed for the period of 2010-2011 years in the CIS region. Azerbaijan could keep its position in 2012-2013 years.

Generally, the country's ICT sector has developed rapidly over the past 7 years (2004-2011), noted field was increased 6-fold, average annual growth rate is 25-30%. Deliberate long-term development strategy, adopted state programs and implemented projects, suitable competitive-investment environment established in the sector and mainly state support play a great role in this increasing.

It is no coincidence that the number of Azerbaijani companies participating in "ITU Telecom World 2012" this year and the space of Azerbaijan's national pavilion are larger – twice as much compared to the similar event last year. I would like to sum up by saying that we have great expectations from this event.



The Baku TV Tower, 310 meters tall (1017 ft)