

ON NEED FOR WORKING OUT THE MODELS AND MECHANISMS OF ESTABLISHMENT AND MANAGEMENT OF ICT-TECHNOPARKS

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Introduction. One of the directions of intensive development of world economy is the establishment of special economic areas (SEA). It's not by chance that, the president of our Republic having noted that, special economic areas might play an important role in realization of strategic programs and projects accepted in our country, implementation of priority duties in new stage of social and economic development, signed a Decree “on establishment of special economic areas in the Republic of Azerbaijan” on March 6, 2007.

International practice in establishment of SEA. Establishment of SEA is one of the main directions in support of private enterprise by the state. SEA is a new form of economic activity. At present, solution of existing social economic problems, wider and more efficient use of scientific and technical achievements, active participation in international labour distribution in a numerous developed countries are carried out on the account of establishment. International practice shows that, SEA has a strong effect on economic development of separate territories and countries as a whole. At present, nearly 3000 SEAs are functioning in approximately 120 countries in the world. In China functions more than 50, in Japan 20 scientific technical areas, Turkey 20, Netherland 45 SEAs. Such area also organized in Poland, Kazakhstan, Russian and other countries. The number of such areas is up to 220 in India and it is considered to run up to 500 their number in next two years. SEAs are getting to cover more new parts of the planet from countries with developed industry (USA, England, Japan, Germany) to underdeveloped countries (Sri Lanka, Guatemala and so on.). In the territory of CIS the process of establishment of SEAs are continued. According to estimations, up to 40 per cent of world commodity circulation will pass from these areas till 2010 [1].

New innovative economic development course in Azerbaijan. Without speeding up of innovation processes and rise of their efficiency it is impossible to create a strong guarantee for the social economic development of Azerbaijan. In the beginning of XXI century having passed from natural resources to high technologies in its economy, development of nanotechnologies, biotechnologies and information technologies also became one of main purposes for Azerbaijan. The role of high technologies in the development of new economy and its steadiness and stability is decisive. The present conditions in Azerbaijan allow establishing SEAs and it must cover non-petroleum sector. In Azerbaijan establishment of steady and stable economy of the country in future on the account of huge amount of incomes gained from oil and gas industry is considered the main element of economic policy as the most foregrounding matter and ground on thesis claiming to establish non-petroleum economy with the help of petroleum.

Information structure established on modern telecommunications and networks in the solution of these significant questions, establishment of economic sector of innovative type grounding on high technologies and realized by qualitative educated human resources are the priority directions of economic policy of the Azerbaijan government. As, there is sufficient innovation potentiality of ICT field in country's economy, it's considered that, establishment of technoparks and provision of their development with the purpose of assistance for innovation based small and middle business in ICT fields, decrease of dependency of science on state by commercialization of scientific searches, involvement of foreign ICT companies and potential investors to ICT market of Azerbaijan, establishment of commercial relations between creators of technologies and investors, involvement of local and foreign investments to science-oriented technological projects at different stages of development, establishment of new work places, training of highly qualified ICT specialists with international practice, transfer of technologies and information resources, etc. and realization of such other matters is a kind means for economic development of countries with the economy in transition period [2].

Conditions for establishment of SEA in Azerbaijan. First of all, development of infrastructure is of great importance to establish SEA in Azerbaijan. Region factor is conditional to be one of the main elements in establishment of SEA. Preference for regions with modern infrastructure during the choice of territory is much expedient. A territory at the seashore and playing strategic role for its geographical location may be a very suitable place for such areas.

Suitable geographical location of Azerbaijan and Trans-Asia-Europe (TAE) fiber-optik cable way passing through the country allows realization of the idea to establish an infrastructure which will render information services, including that of trade operations to the countries of the region. One of the elements of this infrastructure may be a technopark which is a regional centre of creation and transfer of new technologies. Technoparks in Azerbaijan might be established both in Baku and in the regions. Technoparks in regions might be established in Nakhchivan, Mingachevir, Shamakhi, Lankaran, Ali-Bayramli, Sumgayit, and Ganja. In this direction there has already been built a computer work "Kur" in Mingachevir [4].

Establishment of SEA might allow the increase of specific share of ICT in the economy of the country, playing the role of catalyst in the process of development of the economy, organization of development of intellectual potential and innovation-oriented production, assisting the development of the regions, increase of export potential of the country and making Azerbaijan a leader for the development of ICT in the region.

On establishment of national technoparks. National technoparks must have aerial, sector specialization. It's necessary to determine priority areas for the establishment of national technoparks. The following criteria may be used while determining choosing such areas: 1) multiplicative effect – i.e. development of areas related or correlated to this area, 2) perspectives – areas playing a significant role in the provision of future competitive capacity of the country, 3) export potential – areas developed in technoparks must play the role of source in diversification of the country's economy and especially of export as a potential.

While determining priority areas in establishment of technoparks, production and export of technology based equipment in Azerbaijan, establishment of transit information area, establishment of technopark itself and additionally strong information structure and training of necessary human resources for the solution of these problems must be paid attention.

SEA on ICT. ICT field is one of the most dynamic development spheres of the economy of the country. The recent rapid development of this field created conditions for the country to be one of integral parts of global Information Society and carry out mutual cooperation with worldwide states. At present, market of ICT products and services has been formalized and is developing in the country. There are established companies and firms carrying professional activity in ICT market and rendering services in all segments of the market.

It's known that, the volume of information transferred via ICT in the world increases every 2-3 years which increases dependency of other fields of economy on ICT. Development tempo of ICT must exceed the development tempo of general economy twice with the purpose of rapid development of the economy country. The establishment of efficient ICT infrastructure stimulates the development of national economy, formation of suitable business environment, involvement of foreign investments to the country, elimination of unemployment. All these both provide dynamic progress of ICT field in Azerbaijan and give reliable guarantee for more large-scale progress of this sector in future.

There are determined four main directions of development of ICT in Azerbaijan – continuation of reformations, establishment of network infrastructure on the basis of technologies of new generation, formation, development of e-management and e-government and establishment of regional innovation area and on these directions there are taken measures in accordance with "State Program for 2005-2008 on development of communication and information technologies in the Republic of Azerbaijan" (Electron Azerbaijan).

Technopark in ICT field. Techno-polytechnic, technoparks, scientific technical area established with the purpose of preventive economic development are also included into SEAs. Technopark – is a scientific production complex where maximum suitable environment for the development of small and middle science based innovative companies is provided and which is

mainly engaged in transferring the results of scientific activity into a product and organization of their access into market.

Technoparks were founded in 50s of XX century in Stanford University of the USA by the establishment of scientific park "Silicon Valley". Technoparks mainly functions on two models – USA and European models. Technoparks are mainly divided into three groups: 1) Technoparks, 2) Incubators, 3) Technopolice establishments. Technoparks began to be organized in Europe in 70s and in the region of Pacific Ocean and Asia in 80s. There are more than 1500 innovation centres in Europe, more than 700 technoparks, more than 100 IT parks in the USA, up to 80 technoparks in France and Germany, up to 20 technoparks in Finland. Technopark named Sophia Antipolice locate din France is the biggest special economic area in Europe. There functions more than 40 well-known technoparks in Great Britain. There are chosen 19 areas in 4 big islands of Japan and technopolice establishments are established. Such type of technopolice establishments are more than 20 in Philippines with more than 5 million of population. There function more than 250 scientific technoparks in the world. 55 per cent of them are established with participation of regional government and administrative bodies, 48 per cent of municipal government and administrative bodies, 26 per cent of central government and administrative bodies, 13 per cent of universities. 45 per cent of the basis of activity of these technoparks constitutes the stimulation of development of the country's economy, 40 per cent the strengthening of ties between universities and industrial entities, 15 per cent the idea of service for national development. Parks in different countries of the world are variously called as an element of innovation infrastructure. For example, in Eastern countries, Russia, as well as in Azerbaijan they are called "technological parks" (technoparks) or though it's accepted use the phrases "scientific technological parks", "free economic zones", in the USA these structures are called "research parks", in Great Britain "scientific parks", in Korea "scientific industrial parks" [3].

Generally, in the world technoparks are accepted as means for creating conditions for the development of the country by commercialization of scientific work of state research institutes. Technoparks as a tool for innovation policy of the state speeds up the process of application of new knowledge on account of scientific centres and businessmen.

The state of scientific research work in Azerbaijan on the same field. Generally, as no SEA is established in any certain field in Azerbaijan, this field is almost beyond the scientific research. Especially, though the establishment of SEA in ICT sphere is considered expedient, as this field has a rapid development tempo recent years, no serious scientific research work is carried out related to the establishment and activity of technoparks. Information on this field almost consists of information, researches, reports and speeches of MCIT, exhibition and conference materials of "Bakutel" which are used in writing of this thesis [4]. Therefore, scientific research work is to be carried out in this field shall be implemented on the ground of scientific research work carried out mainly in Russia and other states.

The assignment of the problem, problems demanding solution. The establishment of technoparks, explained above in Azerbaijan and efficient organization of its activity, implementation of necessary affairs and carrying out appropriate scientific research work is the essence of the problem assigned. We should mention that, the line of main objects in establishment of technoparks include development of innovation-oriented small and middle business, creation of conditions for the development of innovations in technology fields, development of human resources, broadening of ICT education, establishment of international ICT universities, education and training centres, science centres to be engaged in perspective, practical effective researches, involvement of foreign investments and development of infrastructure, establishment of industrial potential producing and exporting electron, program and other technological based products and services, establishment of centres of transit and regional information between West and East, which will provide the rendering of wide electron service for the countries of the region, the establishment of international information centres and so on. These purposes should be taken into consideration in the use of activity mechanism of technoparks.

All technoparks face general problems at the beginning. This is mainly unavailability of legal basis for normal regulation of innovation projects. All these demand law on technoparks, tax and customs privileges, preferential communication services, preferential use of energy, high salary and other necessary privileges. All the above-mentioned must be in the line of proposed activity mechanisms.

Territory, office, scientific research centre, business and incubator, centre of collective use of equipments, centre of technologies transfer, specialization of technoparks and determination of their structure, establishment of management system, solution of land and property questions, financing of the construction of first objects of technoparks and other questions must be necessarily taken into account in the establishment of technoparks. On a par with these, main directions in the formation of national innovation system of the country must be determined; peculiarities of innovation business must be investigated. In that time technoparks and technopolice establishments must be taken as the basis of new innovation system.

Objects, functions, peculiarities, duties, appointment and services of establishment of technoparks, technopolice establishments, infopolice establishments and incubators which are structural elements of SEA must be defined. The general characteristics of territories to be chosen for the placement of the technoparks must be defined; the practice of establishment of technoparks on the basis of education and scientific entities must be studied.

Models of technoparks in the world (American model, Japan model, Mixed model) must be investigated, the practice of the use of technoparks in Russia must be studied, activity of other foreign technopolice establishments and technoparks must be analyzed. Generally, there is need to work out and apply models and mechanisms of establishment and management of technoparks by carrying serious scientific and technological researches with the purpose of perfection of the work of technopolice establishments and technoparks and determination of their development perspectives. Therefore, problems of establishment and activity of technoparks must be studied; economic and organizational mechanisms of establishment and development of technoparks must be worked out. At the same time, mutual relationship mechanisms of structural elements of technoparks must be cleared out.

On expected results. The existing potential of Azerbaijan allows efficiency of technological parks to be established in the country. Using requirements appeared in relation to the development of the country, bringing up of local producers, maturation of specialists, paying attention to the production of export-oriented products are the main terms. In order to establish SEA in Azerbaijan and provide its efficient activity, first of all, positive practice of world states achieved serious success in this field must be taken into account. In the establishment of SEA model in the country the practice of USA, China, Korea, India, Australia, and United Arab Emirates must be deeply studied.

Observations, analysis and accounts carried out, as well as information given by official structures shows that, the establishment of SEA taking into consideration the development of ICT sector in Azerbaijan with high increase rate, incomes on ICT may reach 4 billion USD in 2012, 10-12 billion USD by equalling petroleum incomes in 2018-20s and may further develop.

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