

UDC 72

Organization of technology park and its structure at high educational school of Azerbaijan

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ABSTRACT: On the base of international experience of creation of technology park and also an analyze of the stages of its realization in Sumgayit region the common scheme of technology park on the base of the Sumgayit State University is offered. The problems of the scheme of realization of the projects of the scientific-investigation places in the industrial park are considered.

Keywords: technology park; innovation; business incubator.

Last period for development of national economy and rising scientific-technical potential in Azerbaijan important innovated works are executing. For realization of model of innovated development one of the priority area is technical parks [1]. For definition of direction of scientific-researching, educational, effective using scientific and person's potential, application of new projects at local and international markets organization of technical parks at High Educational School is scientific-actual problem.

As known at creation of technology park at High Educational School for solution of the problems of working out technology park – enlarging of scientific research and creation of projects, embedding results of scientific works to manufacture, creation of new information technology, support of international connection between countries by innovation the following works have to be executed [2]:

- choosing effective innovation;
- working out and realization of the applied science and integrated scheme of manufacture;
- creation of information basis of innovation area of using date base of all organizations of technology park;
- creation of condition for realization of effective work of workers of the manufacture;
- output of high qualitative product to the international market;
- preparation of specialists for innovated functions at market economy;
- executing the purposive learning for realization of the concrete programs and designs.

Analyze of the scientific-researching literatures and the experience of creation of technology parks in the world shown that work of priority applied areas of technology park at High Educational School is organized on the base of Internet-project and searching in web-service's sites, interactive maps of a region, information portals of scientific directions [1, 2]. The projects of technology park are worked out by means of dynamical web-systems, electron commercial and searching systems, archiving of video information, determination of graphical and biometric information.

At present priority directions technology parks at the High Educational School of Azerbaijan are new information technology, computer aided design, electromechanical, ecological, mechanical, chemical, biology sciences, which at laboratory conditions the future projects are worked out by means of the methods and models of these scientifically

directions. For effective realization of the projects in technology park, choice of high qualified experts-engineers on the base of the open concurs and independent expert groups are necessary. The first group defines economic efficiency, the second group defines scientific direction, and the third group defines possibility of realization of the projects in the technology park.

The first problem of creation of technology park at High Educational School in Azerbaijan is supporting an effective work. For that principle of forming structure of stages of design of technology park is necessary to use. In this connection, the structure of design of technology park at Sumgajit State University is offered.

1. On the first stage informative analytic center in corresponding to international certificate is necessary to create. Financing this stage is realized by means of budget of the State and of the Manufacture of Innovative Technology.

2. On the second stage solution of two problems of creation of technology park are necessary to realize:

- stimulation of development of little manufacture business;
- searching innovative way for economical development.

For solution two of the above considered problems organization of business function is important. Stimulation of development of little business demands solution of the following theoretical problems [3]:

- "tax reformation"- if there are remunerative tax and administrative condition then business will develop freely;

- by means of business incubator development of manufacturing complex is supported from "zero". By means of the business incubator the following conditions are created: little payment of tenantry is supported (allowing rentability working for little business, that is special zones must be organized);

- each men develops his business;
- progressive and expensive equipments are used;
- in the little manufacturing area limited place and workers is demanded.

3. On the third stage for effective realization of the project departments of management must be organized. For expert estimation and projects choosing a special group is creating. The group includes rector of the High Educational School, chiefs of the scientific centers and administration of the local region, members of the government of Azerbaijan. On this stage also a group is created which executes functions of operative engagement and complex management of technology park. That group manages process of designing and building tecnolgy park on the base of new technology.

On that stage an important problem is effective organization of management of a design of technology park. In this connection, the scheme of distribution of the basis functions of design management on the beginning stage is offered (fig. 1).

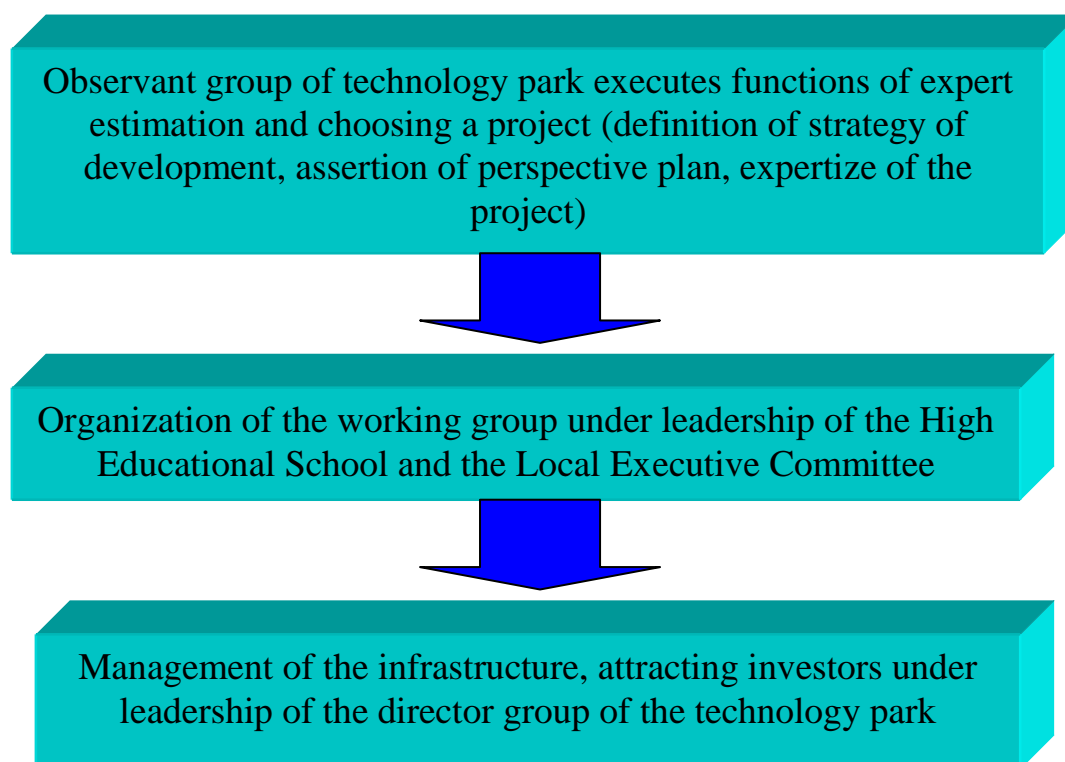


Fig. 1.

In corresponding to the figure 1, the higher organ of management is observant group, which executes the following functions:

- definition of strategy of development;
- assertion of plan of perspective development;
- scientific, technical, commercial and financial expertize of a project.

“Council of directors of technology park” named as managing company executes a process of common management of technology park.

4. On the fourth stage the build works of technology park are realized. Also management company defines the basis directions of present and perspective works of building technology park. After finishing build works company of management executes the following functions:

- control of property of complex of technology park;
- creation of a condition for development of the little manufacture of innovation;
- searching and initial expertize of the project;
- observation of the projects;
- marketing and consalting services;
- transferring product to the international market.

On that stage at choosing a place of location of technology park its area must have beneficial geographical place and be developed transport infrastructure. In the limit of chosen place there must be the central transporting road, an international aerodrome, line of railway. On the base of the above considered demands the scheme of location of the important objects of infrastructure of the region near the technology park is offered.

More optimal scheme of the basis objects of the infrastructure with High Educational School, manufacture enterprises, scientific-investigation institutes in Azerbaijan Republic is the common scheme in limit of the region of Sumgayit city with the Sumgayit State University, the Scientific-Investigation Institute of information technology, oil processing, chemical technology, many manufacture of metallurgy, machinebuilding and other

enterprises, which are located not far from the central magisterial, aerodrome, sea port and railway (fig. 2).

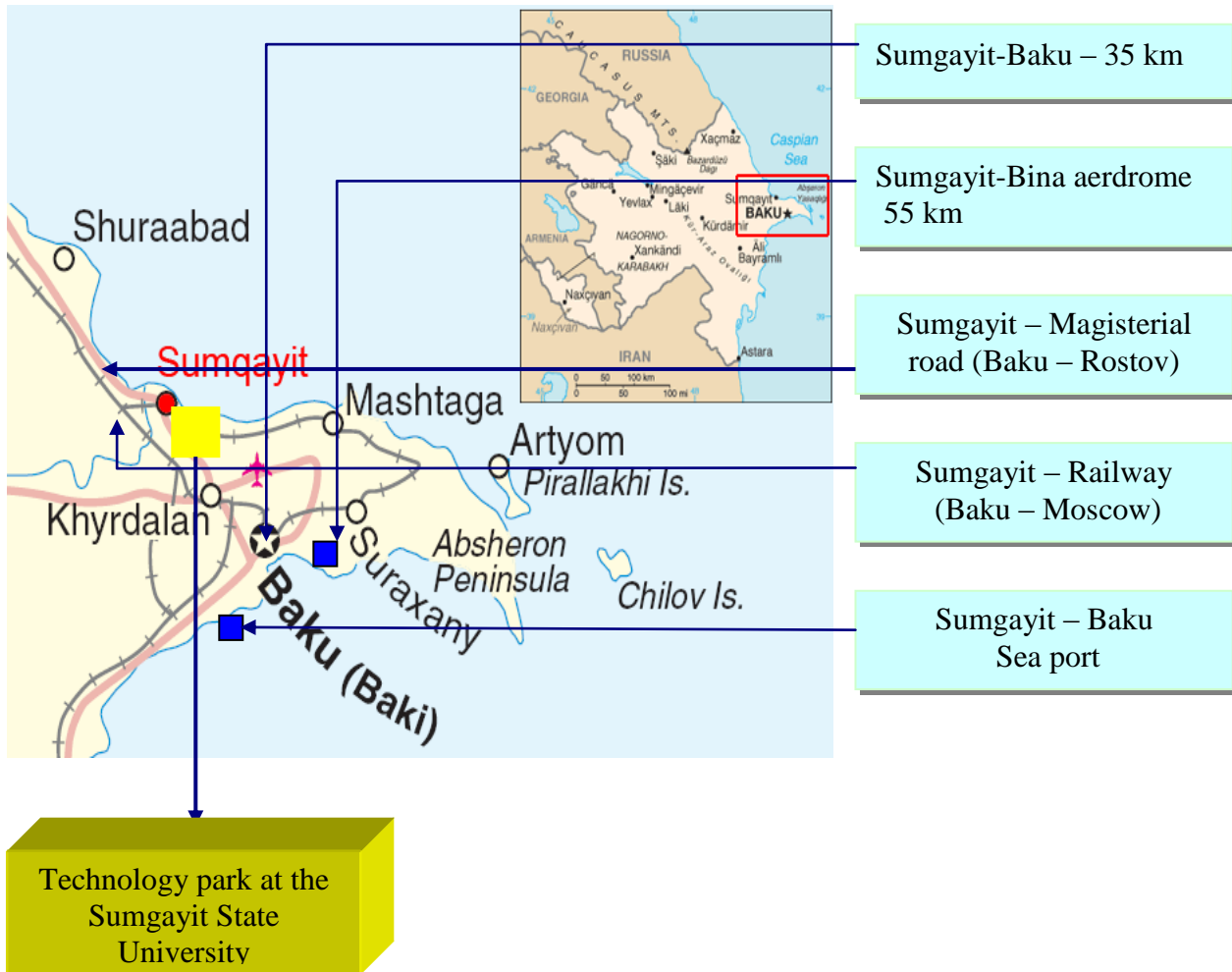


Fig. 2.

As see from the figure 2 technology park is based at the Sumgayit State University, where for effective work of future technology park there are laboratory of scientific-investigation for different technical specialty, the central computing network system, scientific – technical, engineering potential, infrastructure with conditions of learning and teaching.

The process of work of technology park at the Sumgayit State University is realized in corresponding to an offer common scheme, shown on the figure 3. In the date scheme there are also some manufacture enterprises on the base of flexible manufacture systems (FMS) [4] together with the elements of the Sumgayit State University which are marked above. Thus, the working projects which are worked out in the laboratory of scientific – investigation, after expert control the projects, them transfer to the industrial parks (flexible manufacture systems) is executed where are realized output of high quality [4]. The teacher-professor contingent of the Sumgayit State University participates active at scientific – investigation works.

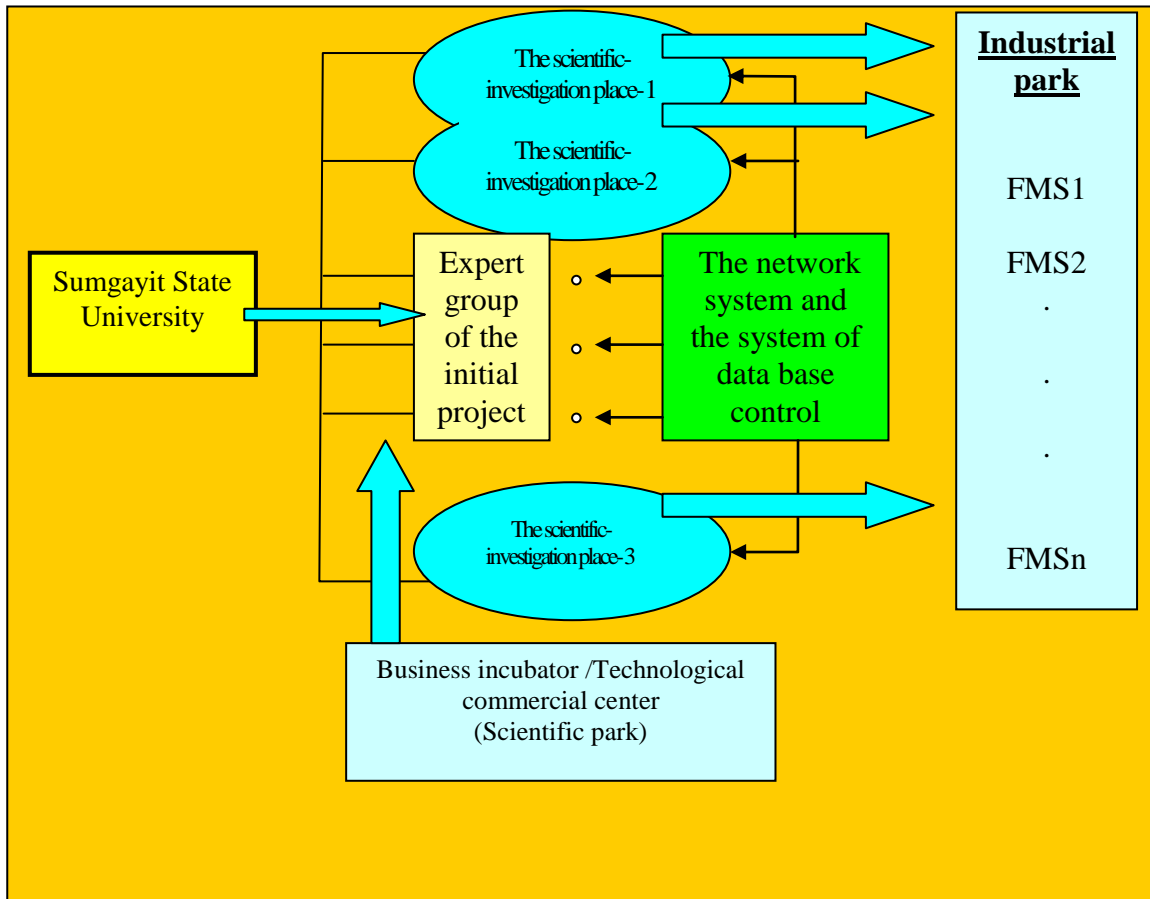


Fig. 3.

In the scientific-investigation place-1 the universal complex of application of information technology, nano technology, control-measuring equipments and innovation projects in automation complex are planned. Also using nano technology in intelligence robot and electro technical complex, working out elements of automatic control in the oil industry are provided.

In the scientific-investigation place-2 as priority directions oil processing, creation of chemical technology, chemic-pharmaceutic areas are planned.

In the scientific-investigation place-3 by direction of protection of ecology working out projects is planned.

As results of the paper the following can mark:

- on the base of international experience of creation of technology park the common scheme of technology park on the base of the Sumgayit State University is offered;
- the basis scientific directions at the structure of technology park are defined;
- for realization of the projects of the scientific-investigation places in the industrial park the scheme of flexible manufacture systems is chosen.

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Организация технологического парка и его структуры при высших учебных заведениях Азербайджана

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АННОТАЦИЯ: На основе международного опыта создания технопарка, а также анализа этапов его реализации в Сумгаитском регионе предлагается общая схема технопарка на базе Сумгаитского Государственного Университета. Рассматривается вопрос реализации проектов научно-исследовательских отделов в промышленном парке.

Ключевые слова: технологический парк; инновация; бизнес инкубатор.