NEW FORMS OF ORGANISATION OF INNOVATIVE ACTIVITY AT HIGHER EDUCATIONAL INSTITUTIONS

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The article considers the factors that prevent the process of informal organization of innovative activity and the ways to overcome them in Russian higher educational institutions. New forms of organization of innovative activities at higher educational institutions have been introduced: these include interdisciplinary project teams and interdepartment communities of practice. The supervision of innovative activity in these structures is to be performed by university technology transfer offices. The creative potential of university scientists could be increased due to knowledge exchange and social capital formation.

Nowadays there is an obvious tendency to use the so-called soft methods of management which imply an active participation of a company's staff in making creative decisions and introducing innovations. It should be mentioned that external factors can't force the society to transfer to the innovative way of economic development. This way requires inner motivation and desire to unite into study personnel.

The teachers of Russian universities, in comparison with foreign ones, seldom hold joint scientific researches even within one discipline, nothing to say about interdisciplinary projects.

We consider that one of the reasons to blame for this situation is the institutional traps: the dependence on the rout of the preceded development. For a long time technical-and-economical but not social factor was considered to be a determining one in our country. Science and education are being underfunding, though stable development is possible only if all the spheres of society are developing steadily. The social sphere is a key one while determining the rules of social and economic system in general. Considerable underestimation of human factor by the top echelons of power is reflected in all the layers of modern society and displays in ordinary people's attitudes. We can say that in our society there are no traditions of cooperation and civic initiatives - or what is called the social capital.

In developed countries innovative organizations develop more complicated organizational structures to attract different resources to overcome the limits of individual knowledge and to stimulate education with the help of staff cooperation. The social nature of innovative activity leads to the situation when traditional borders of organizations become more transparent and as a result new informal educational groups appear.

To stimulate the innovative activity of university complexes scientists should unite their knowledge and experience within one university or region or even on the national and international levels. I speak about the creation of interdisciplinary scientific and research teems and communities of practice.

Interdisciplinary teams which include representatives of different spheres of knowledge are more effective than monodisciplinary ones. I believe that the situation when there is a variety of points of view and approaches will help to understand the problem better and consequently will help to choose a better solution. This happens because the informational uncertainty reduces. One specialist is not always able to get all the information concerning all relevant factors, while interdisciplinary scientific researches stimulate creativity and innovations often appear when two or different scientific disciplines unite their ideas even if they were odd before. Moreover, the innovations in one sphere of knowledge often influence the other.

There is an obstacle that prevents successive cooperation between universities and businesses. First of all it is connected with the organizational structures of universities, with lack of motivation and with some difficulties concerning interdisciplinary teams management. Speaking about the difficulties connected with the organizational structures of universities, we mean the lack of scientific cooperation among departments. Thus it's necessary to create struc-

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tures that will participate and carry out interdisciplinary scientific researches within one particular university, between universities and between universities and businesses. Besides, these structures should have horizontal integration. These structures will promote creative discussions and interdisciplinary team formation.

It's necessary to create favourable conditions so that the representatives of different sphere of knowledge would meet and hold theme conferences based on questions connected with different spheres of interest. All these promote knowledge exchange, open communication and partnership formation. It's necessary to inform concerned parties about university scientists' competences, about their successive realization of interdisciplinary scientific researches and about their practical contributions that really meet the demands of industry and other branches of economy.

A partnership that doesn't allow its sides to realize its interests can't be a successful one. That's why universities and our society should be aware about each other interests and should be able to satisfy them[1].

It's important to settle a global strategy of interdisciplinary scientific researches at universities and support their practical realization. In future all these should lead to the appearance of new similar research projects.

The current organizational culture at universities doesn't support interdisciplinary scientific researches and thus doesn't meet the challenges of modern economy of innovations. The lack of motivation is often connected with the fact that scientists underestimate the importance of interdisciplinary scientific researches. On the other hand, university authorities don't pay much attention to such researches as they are not in the sphere of their responsibility. This situation is reflected in the way the financial resources are distributed and in the way the scientist are stimulated. The system of financial stimulation should encourage university scientist to participate in interdisciplinary scientific researches and it's necessary to encourage and reward the members of the staff for real achievements

The lack of united concept determines the difficulties connected with interdisciplinary team management, as there are different approaches and peculiarities within different scientific spheres. All these prevent communicational processes, knowledge transference, results interpretation and consensus achievement. The above mentioned conditions don't allow to realize initiatives, connected with interdisciplinary scientific researches conducted not only within a university but together with businesses as well. To solve these problems it is necessary to train the staff to manage interdisciplinary teams.

The staff of an interdisciplinary team should include engineers, marketing specialists, managers and other specialists. The important thing is that the process of staff formation should take into consideration the innovative policy of the university. The main functions are performed by marketing specialists. They collect and analyze the data, determine the demand on innovative goods, find specialists who play a key role in the innovative activity in the region. Besides, marketing specialists study the experience of different businesses and develop new technologies; they also should take part in staff recruitment for interdisciplinary teams.

The current activity of a team is supervised by a coordinator, who sets targets, determines research tasks, holds meeting, creates a favorable atmosphere and is responsible for maintaining close ties between university professors and industrial experts.

The other type of integrated associations is communities of practice, which are considered to be long-term associations of people structured around a particular kind of activity[2].

The members of communities of practice easily transfer and share their knowledge with each other as they have common targets and interests, common terminology and methods of education. The communities of practice are not limited within one organization or one scientific sphere, they gain the importance in the sphere of economy as they create perfect conditions for cooperative education and further development. These communities of practice constantly exchange knowledge and information, connected with a particular kind of practical activity. Every community of practice is an informal self-regulated cooperation, though there are managers who supervised the community's activity.

Some teams are created to realize particular projects and they exist till these projects are completed. In comparison with these teams communities of practice exist for a long time and accumulate social capital. It should be mentioned

that the members of communities of practice do not always belong to one project team or group.

I believe, it's necessary to create interdepartment societies based on particular interests and the members of these interdepartment societies could form interdisciplinary project teams to realize innovative projects.

Project teams and communities of practice can also be created on virtual level. With the help of infocomm technologies virtual teams unite scientists from different cities, regions and countries. To work effectively university scientists should consolidate their efforts on the international level. In many countries state institutions support innovative activity and organize networking.

The supervision of university complexes can be performed by technology transfer offices that are being created in many higher educational institutions. The essence and the main functions of these technology transfer offices are described by professor V. Turina. These subdivisions are established for commercialization of project results achieved by university scientists. Technology transfer offices also perform analytical, expert, marketing and commercial functions[3].

Within the limits of technology transfer offices we suggest the creation of informal structures in the form of interdisciplinary project teams and interdepartment societies.

Taking all facts into consideration we may conclude that informal organisations of innovative activity play a vital role in modern economy. The management of innovations in university complexes should be based on new organisational structures, such as interdisciplinary project teams and communities of practice. All these will greatly improve the inner motivation of university scientists, stimulate creativity and knowledge exchange. The factors mentioned above are essential for innovative activity stimulation within university complexes.

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