THE NECESSITY AND STATE SUPPORT DIRECTIONS OF INNOVATION TRANSFER PROCESSES IN RUSSIAN FEDERATION

© 2009 Y.A. Dulepin*

Keywords: innovations, transfer of innovations, state innovative policy, the system of innovations.

This paper considers the importance of innovations transfer for providing the innovation process integrity and effective national economy performance. The author analyzes the state control trends in transfer of innovations in Russian Federation.

The application of Research and Advanced development (RAD) results are defined by high level of competitiveness of modern high-tech business where only new product or service creates the competitive advantage of one company among the others. One of the peculiarities of Scientific and Technical Process (STP) current phase is that it happens in conditions of dynamic global international competitiveness of the last quarter of XX - beginning of XXI century based on the use of modern technologies.

In modern conditions RAD is characterized by the increase of the frequency of innovations as a result of permanency of innovation activity, the necessity of taking into account the opinion of potential consumers, parallelism of innovation activity concerning the products, processes, organization and administration, variety of resources of innovations.

Almost each innovation causes the creation of a new product (or technology). Besides, the role of consumers of innovative production is increasing because the last estimation is given by the market.

Western experts notice that the latest models of innovations make an emphasis on innovation as a manufacture of knowledge and an interactive process in which firms co-operate with consumers, suppliers and institutions. The empirical analysis shows that firms seldom carry out innovations by themselves only. It also is one of the reasons of system approach to knowledge manufacture.

The dynamics and productivity of creation and implementation of innovation first of all depend on participants of innovations and their interaction.

The movement of scientific idea to the practical use assumes the implementation of corresponding system of communication and relations. The represented system "is not isolated" from a society, and objectively included in other administrative systems, culture, and it includes new knowledge and the previous experience. The bilateral information exchange between source of technology and its addressee acts as a key element of communication model of technology transfer. In this process the participants constantly and actively exchange new ideas and knowledge that break the borders between the creators and addressees of technology. The effective transfer of technologies up to commerce stage of ready product assumes constant multilevel information interchange.

The necessity of support of national competitiveness becomes very important in Russian Federation.

The first basic document concerning this problem "The bases of the policy of Russian Federation in the field of developing science and technologies for the period till 2010 and further prospect" (1) was accepted in 2002.

The next step was made in February, 2004 - "The bases of Russian Federation policy in the field of development of national innovative system for the period till 2010" was accepted.

This document defines the purposes, problems, the major directions of a state policy of developing national innovative system, mechanisms and the basic activities targeted at the implementation of this policy, and also forecasting the indicators of developing national innovative system. For the effectiveness of innovative activity it is necessary to have strong motivation, that is a system of stimulus.

The developed countries of the West and a number of dynamically developing countries of South East Asia today have already developed effective national innovative systems which create favorable conditions for functioning the in-

^{*} Yriy A. Dulepin, post-graduate student of Saratov State Technical University. E-mail: meb@kontaktsaratov.ru.

novative activity, providing low barriers for entering the market, access possibility to financial resources, including the well developed venture investment.

All these elements of innovative system give the opportunity to realize innovative projects quickly. Besides, the developed countries actually already have passed postindustrial development, have mastered the fifth technological way and passed to the sixth, confidently positioning themselves in world hi-tech markets. During market reforms of the90ies of XX century Russia has stepped back in implementing structurally-technological transformations.

As V.L.Inozemtsev notifies, industrialization process in Russia is not finished yet. Today the equipment deterioration in industry is about 50 %. At the same time the own technological base for the development of domestic mechanical engineering is almost destroyed.

The hi-tech sector of Russian industry is concentrated basically in defense and is not in demand. Its share in the total amount of domestic industrial production was reduced more than twice. Thus, for the last 10-15 years in Russia there was a decrease in the innovative sectors of economy which define the demand for innovative production. As for foreign markets Russian production is not competitive there. The share of Russia in the world hi-tech market is the smallest one and is about 0,5 %. Innovative activity of the enterprises does not exceed 10 % in the last five years while on the average this indicator in the EU countries is 44 %.

The incompleteness of market transformations in the country prevents to move to an innovative way of development. Many elements of managing the market system in the Russian Federation are still developed poorly or are absent. So, in There are practically no large hi-tech companies in Russia, small innovative business is not developed. Venture financing, share markets, etc. statistics show that domestic business is not interested in innovations: no more than 1 % of large companies carry out research and development (abroad - 2/3 of large business). All this creates real obstacles in the way of expanding and activating innovative activity. That is the whole set of actually absent elements of market economy does not allow to make active process of implementing innovations. So, in Russia there are practically no large hi-tech companies, small innovative business (in the general structure of small firms of the innovative companies no more than 2 %) is not developed. Venture financing, the share markets, etc. Statistics shows that domestic business is not interested in innovations: not more than 1 % of the large companies carry out research and development (abroad - 2/3 large business). All this creates real obstacles in a way of expanding and activating innovative activity.

In this case the development of special innovative programs of development in the situation of crisis and also implementing already existing rules of law and actions, concerning activating innovative activity is necessary. In the last years some important documents are accepted in this direction.

So, in "the Basic directions of a policy of the Russian Federation in the field of development of innovative system for the period till 2010" (confirmed by the Government of the Russian Federation 05.08.2005 N 2473p-P7) a transfer and commercialization of innovations are considered as one of tendency of innovative system development.

The document notes that the state policy in innovation system development is implemented by the following directions:

 Creation of favorable economic and legal environment concerning innovative activity;

♦ Formation of innovative system infrastructure;

• Establishing the system of state support of commerce results of intellectual activity.

For achieving the government goal in the field of developing innovative system at the expense of introduction and commercialization of scientific and technical works out and the technologies, the accelerated development of high technology manufactures, it is necessary to solve following primary goals:

♦ To generate priorities of innovative activity;

• To provide standard-legal regulation of innovative activity;

• To provide a rational combination of mechanisms of the state direct and indirect stimulation and market mechanisms at realization of innovative activity;

• To create conditions for developing the personnel potential of domestic science and maintenance of continuity in scientific and technological spheres; To provide active development of innovative activity of the enterprises and companies working in the area of technologies commercialization.

 To strengthen state regulation and support of research and development works in competitive areas which, first of all, concern: defense-industrial complex, nuclear and aerospace industry, communication and telecommunications, pharmaceutics and biotechnology, software manufacture;

◆ To provide development of the innovative technologies directed on increase of efficiency of use power and natural resources of the country, including the unique technologies created in an defense-industrial complex;

• To provide acceleration of scientific integration processes, educational and industrial activity for increasing the competitiveness of Russian economy;

◆ To carry out the state assistance to the formation of scientific, educational, industrial integrated structures focused on serial release and realization of innovative production in cooperation with small hi-tech enterprises.

To provide the increase of efficiency of stateprivate partnership at the implementation of major innovative projects of the state value;

To stimulate the attraction of Russian and foreign investments into high technology branches of national economy.

The state support of the commercialization of intellectual activity results, including the preparation of manufacture and maintenance of enter to the market of innovative production, is carried out by:

 Coordinating federal, regional, interdepartmental and departamental targeted programs targeted at consolidation and concentration of budgetary and off-budget resources for financing innovative activity;

Finding complex solutions to the problems of innovative development of the regions and high technology branches within the limits of implementing Priority directions of science, technologies and techniques development of Russian Federation and the List of critical technologies of the Russian Federation;

• Developing the mechanisms of interaction of innovative activity participants, first of all, between scientific organizations, higher educational institutions and industrial enterprises for the advancement of new knowledge and technologies into manufacture.

Among the basic mechanisms of implementing a state policy in the field of innovative system development there are mechanisms stimulating a transfer of innovations between subjects, in particular such as:

 development of internal market of innova-tion products;

 involvement of the companies of small and middle business to participate in target programs and innovative projects;

♦ formation of motivation to innovation activities development with the help of fundamental and scientific research, research and development work and construction works which are financed by the state.

State participation in infrastructure of innovation system development.

Thus, in modern economy the state role in the processes of transfer and commercialization of innovations is quite important. Especially it concerns the states with developing market economy in which national innovative systems are are just being formed.

Reorganization "on the contrary"//the Science and technologies of Russia / News in the world of a science, formation, research works: the Electronic edition "the Science and technologies of Russia". http://www.strf.ru/

Received for publication on 11.08.2009

Bases of a policy of the Russian Federation in the field of developing science and technologies for the period till 2010 and the further prospect // Search. 2002. \mathbb{N} 16 (674). April 19.

Golichenko O.G. Problems of modernizing innovative system and innovative policy of Russia // Innovations. 2008. № 10.