

Russian innovative system: Current status and prospects

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Abstract: This paper aims to provide an overview on the Russian innovative system. The work analyses the status of the innovative environment at the present time, highlights the main problems innovation development and also considers the assumptions and perspectives of its development in the future.

Key words: Innovation, concept of four "I", national innovative system (NIS), Innovative market environment.

Innovation is one of the dominant the current government feature, announced by the President of the Russian Federation according to the so-called concept of the four "I": institutions, investment, infrastructure, innovation, and was later added a fifth element - intelligence. In message to the Federal Assembly of the Russian Federation D. Medvedev said: "Our priority is the production of knowledge, new technologies and advanced culture. So, we should achieve a leading position in science, education and art. We have to be at the forefront of innovation in key areas of economic and social life. And for such purpose any state or business should not be skimpy - even in difficult financial times ". [4]

Achievement system of the aim consists in the transition of the Russian economy from the export of raw materials to the innovation-oriented type of social development. It will expand the competitive potential of the Russian economy at the expense of accumulation of its comparative advantages in science, education and high technologies and, on this basis, to involve new sources of economic growth and welfare increase. Creating an innovative economy is transformation of intelligence, human creativity in leading factor of economic growth and national competitiveness, along with a significant increase in the efficiency of natural resources and the production capital. The source of high income is not only the possibility of rent from the use of natural resources and the global environment, but also the production of new ideas, technology and social innovation.

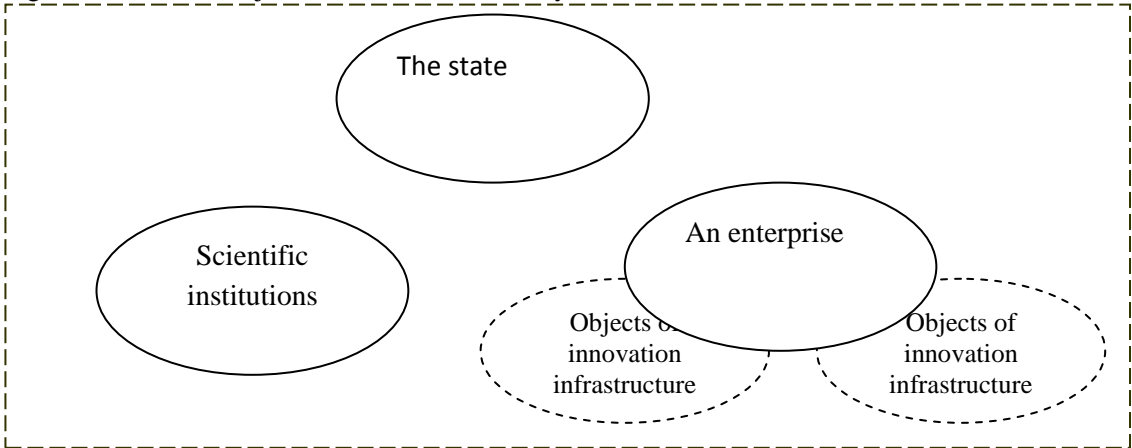
A feature of the transition to an innovative social-oriented type of development, according to the concept of long-term socio-economic development of the Russian Federation, is that Russia will simultaneously solve the problem and catch-up and advanced development. In conditions of global competition and an open economy it can be impossible to catch up developed countries in terms of welfare and efficiency without providing advance breakthrough development in the sectors of the Russian economy, which determine its specialization in the world economy and allow implementing of national competitive advantage.

Such aim is limited by a number of important institutional issues, including lack of development of the national innovation system. Under the national innovative system (NIS), synthesizing judgments of leading experts on this perspective, we will understand set of the interconnected managing subjects (the enterprise, scientific institutions, consumers) and institutes (legal, legislative, financial, social) which interact in the production process, distribution and use of knowledge and competitive technologies aimed at realization of the strategic goals of sustainable development of the economic system within national borders and which help to improve the competitiveness of its subjects (companies, regions of the country as a whole), including the international level. [2]

At the moment, according to the Russian researchers, the NIS does not exist at all, because its basic elements are out of balance and exist in isolation from each other, there is no systematic phenomenon. The current situation can be described illustratively (Fig. 1). In particular, the work of A.V. Brizhan shows low efficiency of the system and its components, the presence of a number of limitations and problems of its further development are evidenced by the following data: the share of innovative developments in the cost of technological innovation is approximately 18%; from the number of used advanced technology only 2.6% have a patent on the invention, more than 90% of

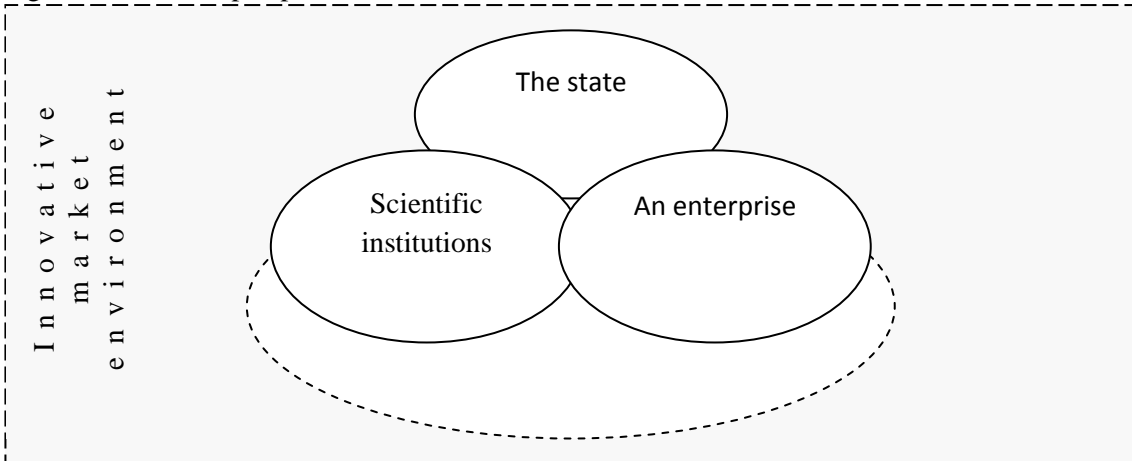
engineering products are uncompetitive in compare with foreign analogues, the share of innovation active organizations is less than 10% and the share of expenditure on technological innovation in general volume of shipped products is a little more than 4% . [1, p. 12].

Figure 1. A set of subjects of innovative activity in Russia.



Considered shown disparate elements of the Russian NIS potential in Fig. 1, illustratively show a prospective model of the Russian innovation system in Fig. 2. Systematic interaction between science and the real economy can be the basis for the formation of a truly Russian national innovative system. It is supposed that this set of elements is necessary and sufficient for the development of the NIS, as the exclusion of any element of the system leads to the rupture of the innovation process, therefore makes it impossible to operate of the entire system. All elements are equal in the formation and development of NIS and do not exist separately from each other, also its are in close functional interdependencies. The figure shows the special role of the state in the development of the NIS. Despite the fact that the state's role in the development of NIS efficient is significant and covers substantially all stages of the innovation process, however, it should be remembered that attempts of over-regulation lead to inefficient programs organized in conjunction with the business, as a whole interest of the industrial sector in the implementation of innovation declines. In many countries governments use different channels to support innovation. This approach reduces the risks of "government failure" because of inefficient activities of specific institutions and further allows to extend support to more effective ones. Figure 2 shows that all of these elements must exist in some innovative market environment. It means that for creation, production and distributions of innovations is necessary not only the developed science and the production, capable to perceive its achievements, and to consume production, but also the incentives for people to create and put innovations into operation, funds, favorable social conditions and orientation on scientific and technological progress. If this attitude is positive, the company will create innovative system [3].

Figure 2. Model of perspective Russian NIS.



In conclusion is specified that current trends of economic growth of a number of the countries predetermine the main requirements to NIS development in independence of a national framework. They include provisions that the NIS should: - ensure sustainable economic growth and competitiveness through the use of scientific and technological capacity; - possess self-sufficiency and stability to the effects of the environment; - be capable of integration to the innovation systems at a higher level; - be formed on the basis of a balanced combination of governmental and market mechanisms.

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