

---

## **Imperative of State in the Process of Establishment of Innovational Economy in the Globalizing World**

---

E.S. Akopova<sup>1</sup>, N.V. Przhedetskaya<sup>2</sup>

***Abstract:***

*The article deals with the main problems of establishment of innovational economy and possible ways of solving them by the state in view of historical and national peculiarities, as well as actual situation of state regulation and support in the sphere of science and technologies. The authors determine top-priority tasks of the state in the sphere of innovations.*

***Key Words:*** *state regulation, innovational economy, science, technologies, innovations, public-private partnership.*

---

<sup>1</sup> Doctor of Economic Sciences, Professor, Rostov State University of Economics

<sup>2</sup> Doctor of Economic Sciences, Professor, Rostov State University of Economics

Formation of innovational economy and its eventual development are the main strategic goal of a state in XXI century. While several decades ago, the most important thing was state's having natural resources, today it is necessary to develop science and implement new technologies, as the main factor of growth of leading countries of the world is not financial capital and production means but knowledge and new ideas which ensure manufacture of demanded products (1, p. 6). Innovational path provides dynamic development of a state and its competitiveness at the global stage and stimulates increase of living standards of the population.

In its turn, experience of transition to innovational economy and its results are historically and economically determined and specific for each country (9, p. 44-45). Special importance belongs to the place and role of state and to main mechanisms of state regulation. As it is the state and its institutes that provide the necessary impulse and direction, as well as a possibility to use the existing resources. Still, the state does not have to replace market mechanisms and at later stages is obliged to bring its interference to the minimum, giving way to the initiative of private members of the market (4, p. 16).

Regulation of economy requires a complex of measures aimed at modification of economic processes. State regulation should be applied only in the interests of the whole society and influence positively all forms of economic activities (1, p. 5).

In scientific literature, there are different opinions on state's participation in formation of innovational economy: from economic dirigisme to ultra-liberal concept which leaves minimum of functions for the state. As is usual in such cases, optimal solution is somewhere in the middle (10, p. 129).

It is obvious that besides execution of the management function, the state performs several significant roles in economy. First of all, it is a supplier of various state services; this sphere requires application of organizational, administrative, and technological innovations. The state is the largest "consumer" of goods and services, and, therefore, the process of state purchases, partially oriented at innovational goods, services, and works, created a distinctive demand for products of high-tech companies (4, p. 17).

Formation and implementation of innovations into economy requires a certain regulation from the state, based on the following goals: growth of the flow of investments and their active implementation into production technologies, growth of export and manufacture of products of innovative activities with high added value (1, p. 6).

Another important function of the state in developed and new industrial countries is creation of favorable conditions for innovative activities of entrepreneurial sector.

---

For realization of this function, the following measures of economic and budget policy are used: inclusion of expenses for innovational development of private sector into product's cost; write off of a large part of scientific equipment for quickened rates of amortization; use of the system of targeted tax subsidies aimed at constant growth of the volume of scientific expenses in large corporations and attraction of small and medium business to innovative activities in the sphere of new technologies; concessional lending for scientific and technical developments and equity funding of large projects, creation of institutional conditions for development of venture financing; free transition or provision on a preferential basis of state property or land for organization of innovational enterprises and creation of scientific infrastructure in regions. At that, differences between countries are expressed in terms of application of the stated documents, scales of provided subsidies, and priority of support for certain spheres.

The above measures are supplemented by actions of central and local authorities for development of anti-monopoly regulation, customs policy, and protection of intellectual property rights for the purpose of stimulation of innovational activity (3, p. 25).

The concept of long-term socio-economic development of the Russian Federation until 2020 is also oriented at transition to innovational socially-oriented type of development and supposes modernization of separate top-priority spheres and directions of science, technique, and technologies as structural elements (2, p. 63). At that, all innovational programs, developed at federal and regional levels, are oriented at overcoming significant underrun of Russian economy from industrially developed countries which lead in innovational development (9, p. 46).

The multitude of methods of state regulation of the sphere of science and technologies that are realized in industrially developed countries could be united into three main groups.

The first one includes methods and mechanisms which provide direct participation of state in production of knowledge which is realized through formation of state scientific structures (for example, in the form of state laboratories, institutes, etc.) and their direct budget funding. This group also includes budget financing of state order (or part of contract) in private sector.

Application of direct budget funding as a tool of state regulation of the sphere of science and technologies is in most cases limited by the sphere of traditional responsibility of state (defense, energetics, healthcare, and agriculture). The obtained knowledge and results (except for those related to provision of country's defense and protection) are available for a wide circle of users (actually, the level of the availability is regulated by national laws on intellectual property in each country).

The second group of method of state regulation of the sphere of science and technologies unites a wide specter of free subsidies and grants for fundamental re-

search, which are provided to scientists who work in state structures and outside them (primarily, in universities). One of the conditions for their provision is full report on the process of the research and open publication of the received results – though intellectual property rights in this case can be regulated in different ways.

At last, the third group includes methods aimed at formation of favorable conditions for private investments into the sphere of science and technologies, stimulation of research and development in private sector and its innovational activity. A key element of the wide arsenal of methods of this group is tax subsidies. It also includes subsidies provided by the state for private business which invests into research and development.

Thus, despite national peculiarities of the models of state regulation of the sphere of science and technologies in industrially developed countries, an inseparable and key element of all these models is indirect methods of support which stimulate research in development in private sector and growth of expenses for science.

In other words, in developed countries, the issues of conduct of a wide range of research and creation of new technologies are within the sphere of interests of state and private sector of economy. Moreover, when members of innovational system are connected in a certain way, they may become a locomotive of economic growth, and in case of lack of effective cooperation, they may hinder innovational process (9, p. 46).

A general tendency in the state regulation of the sphere of science and technologies on the whole and applied and pre-competitive R&D in particular is re-orientation from direct methods to indirect ones which are most effective under the condition of stability and duration of the used schemes and mechanisms. Responsibility for selection of directions of R&D lies on private sector, which not only strengthens motivation of business environment for R&D but accelerates receipt of results during realization of current projects.

Stimulation of innovational re-orientation of economy and investment flows requires targeted methods of state regulation. This path is peculiar for many countries of the world, including leaders of innovational process. It should be taken into account that the main stimuli for attraction of modern investors (outside raw materials sector) are not tax subsidies and/or political guarantees but a chance for participation in realization of possibilities of innovational potential of national economy. Thus, quick development of all components of national innovational system and active marketing of its achievements among national and foreign investors are the best ways for attraction of national and foreign investments of sufficient volume and quality for solving tasks of economy renewal (5, p. 56).

State regulation of private sector of the sphere of science and technologies could be performed on the basis of the following organizational and financial tools: direct

financing of works performed in industry for development of commercial products, processes, and services; direct partnership with private organizations aimed at reduction of risks of performed projects and division of related expenses; funding of R&D in private sector performed within works relating to the sphere of traditional responsibility of state; indirect stimulation of investments into the sphere of science and technologies.

A core of balance in partnership between business and authorities in almost all spheres of innovational breakthrough (informatics, biotechnologies, nanotechnologies, new materials, etc.) is development of mechanisms of private-public partnership, which is reflected in long-term strategy of development of the RF until 2020. Being one of the main institutes of formation of integrated socio-economic space of Russia, institute of public-private partnership satisfies actual needs related to necessity for stimulation of business for participation in creation of objects of production and social infrastructure, reconstruction, management and construction works in the sphere of housing and utilities infrastructure, water and community infrastructure, transport infrastructure, and implementation of leading technologies of provision of services (9, p. 46-47).

It should be noted that despite obvious significance of this institute and its role in development of national economy, as well as a large number of related scientific developments, the global practice does not provide a unified definition of it. Thus, the World Bank defines public-private partnership in the widest sense as any contract or legal relations between state and private structures for the purpose of improvement and/or expansion of infrastructural services, excluding contracts for state order (public purchases). In the European Union, public-private partnership is treated as various “forms of cooperation between state managing departments and private business aimed at provision of financing, construction, modernization, management, and exploitation of infrastructure or provision of various services” (8, p. 95).

Scientific and practical interest to public-private partnership in Russia has grown significantly, and Russian researchers provide a whole range of possible definitions of the PPP. According to M.A. Deryabina, within the system of innovational economy of Russia, public-private partnership is an institutional and organizational alliance of public authorities and private business, for the purpose of realization of socially significant projects in a wide range of spheres of activities – from development of strategically important spheres of economy to provision of public services in scales of the whole country or separate territories.

The main goals of state in innovational system within PPP include the following: stimulation of business for investing into strategically important spheres with a high level of risk and uncertainty; harmonization of interests of members of PPP; provision of financing from various sources of capital-intensive projects with a long rate of return which are not attractive for private capital (9, p. 46-47).

It should be noted that many entrepreneurs are restrained by instable legal sphere in which decisions are taken and bad investment climate (1, p. 7). Analysis of Russian practice and normative & legal provision of PPP show that there are still many unsolved problems in formation of institutional foundations of cooperation of state and private sector in the aspect of configuration of relations, property rights, and overcoming institutional dichotomy, which is a source of ineffective functioning of innovational sector of economy. Effective functioning of PPP requires political and legal environment which corresponds to goals and tasks of private-public projects and transformation of legal basis of PPP for the purpose of overcoming institutional traps and creation of partnership rules which should be legitimate, transparent, well-reasoned, and equally acceptable for society and both sides of PPP (9, p. 47).

N.P. Kononkova distinguishes the following problems of the use of PPP mechanisms: lack of clear definitions of PPP in laws as an object of state regulation; normative & legal and administrative barriers for development of this regulation; lack of mechanism of spending budget assets within PPP; complexities of regulation of rights for property objects (including objects of intellectual property), created with the use of budget assets (8, p. 96).

The current innovational policy of the Russian Federation is totality of directions and measures of direct and indirect regulation of activities of subjects of national innovational system (economic subjects and investors; scientific, project, and other organizations; institutes of infrastructure of innovative activities, including corresponding types of financial and credit establishments). The object of direct state support is primarily fundamental sciences and R&D conducted in the spheres of traditional responsibility of state. Methods of indirect support, in their turn, are used for stimulation of R&D in private sector, i.e., for applied science.

Such “specialization” is not tough, i.e., methods of direct state support could be used for stimulation of investments of private sector into the sphere of science and technologies, indirect – for supporting research which are top-priority for state and society (in the spheres of traditional responsibility of state).

It is conventionality of existing “specialization” of methods of direct and indirect state support that leaves the question of optimal ration of these two methods open – especially for applied and pre-competitive research (or industrial R&D outside the area of traditional responsibility of state).

Thus, large importance of state in formation of innovational system is obvious. It is necessary to create conditions for conduct of innovative activities in regions of the country and it is important to directly participate in its process. The state should be a link between needs of people, goals of R&D works, and suppliers of resources; scientific developments, new technologies, and society; scientific establishments, entrepreneurship, and state (1, p. 7).

In future, role of state should be brought down to subtle correcting adjustments of national innovational system and, if necessary, to concentration of resources and efforts at directions of scientific and technological development which are considered to be most important for the country's future (4, p. 16).

The main task of innovational policy of Russia consists in implementation of innovational processes into all spheres of economy and making economy and all economic subjects generate and sense innovations (5, p. 57). At the same time, innovations have a value only if they are applicable in economy and provide a feedback. The state should pay special attention to R&D institutes, for impossibility to realize own capabilities leads to so called "brain drain" from Russia to the West. This shows a necessity for creation of conditions for innovative activities between educational establishment and enterprises which, in their turn, can create "innovational areas" on their basis. The problem of lack of highly-qualified employees will be solved through funding of educational establishments (1, p. 6).

## References

- Baurina S.B., Darbisheva P.G. Role of state in establishment of innovational economy // Innovations: perspectives, problems, achievements: proceedings of III international scientific and practical conference, May 14, 2015/edited by Prof. M.I. Botov – Moscow: FSBEI HPE "REU named after G.V. Plekhanov", – 2015. – 438 p. P. 5-7.
- Gretchenko A.A. Role of state on a way to innovational economy // Economic science. – 2010. – 7(68). P. 62-66.
- Ivanova N. Innovational sphere: results of the century // "World economics and international relations". – 2001. – No. 8. P. 22-34.
- Kirsanov M.Y. Formation of national innovational system, for development of regions' economy // PhD thesis – St. Petersburg, – 2015.
- Naryshkin S. Innovational component of investment processes // Issues of economy. – 2007. – No. 5. P. 52-64. <http://www.ebiblioteka.ru/browse/doc/12094999>
- Przhedetskaya N.V. Problems of innovational development and ways of solving them // Humanitarian and socio-economic sciences. – 2010. – No. 6. – P. 136-139.
- Przhedetskaya N.V. Principles of application of marketing complex for promotion of educational services under the conditions of changing market // Humanitarian and socio-economic sciences. – 2015. – No. 2. P. 148-154.
- Rozantseva A.P. Public-private partnership as a way of increase of social responsibility of business in present-day Russia // State management. Electronic bulletin. – No. 51. August 2015. P. 85-103.
- Sofina T.N. National innovational system of Russia: models of formation and tendencies of development // Bulletin of Novgorod State University. – 2012. – No. 69. P. 44-47.
- Shilov A. Innovational economy: science, state, business // Issues of economics. – 2011. – No. 1, January. P. 127-137. <http://www.ebiblioteka.ru/browse/doc/23619236>