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**INNOVATION SYSTEMS OF DIFFERENT LEVELS AS ENVIRONMENT OF THE MOST FAVOURED NATIONAL TREATMENT FOR SMALL INNOVATION ENTREPRENEURSHIP DEVELOPMENT**

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**Abstract:**

The necessity of complex approach appliance, when deciding this problem, has caused the development of approaches regarding the formation of some unified system of region innovative capacity. Christopher Freeman is considered to be the founder of the theory of national innovation system (NIS), which studies and analyzes the development of innovation activity in different regions (Scientific policy research unit of Sussex University, Great Britain), as well as Bengt-Ake Lundvall (University in Uppsala, Sweden) and R. Nelson (Columbia University, USA). Researches of J. Schumpeter (dynamic economics theory), F. Hayek (dispersed knowledge), D. Norton (institutional theory), R. Solow (the function of scientific and technological progress in economic growth), P. Romer and R. Lukas (new theory of growth) have provided the basis for the present scientific researches regarding the problem of NIS. The large-scale project of modernization and changeover to innovation type of development at imperfect institutional surrounding can be successfully realized only in trusting environment and acculturation of innovation in the whole. At this, the interactive control within innovation systems would provide involving the representatives of almost all branches and institutes into the process of strategies formulation and realization. The practical implication of our research is determined by the task of developing the possibilities and procedures of founding and developing the state innovation system, as well as formation of complex of measures regarding its developing, based upon the results of territorial integration innovation potential analysis, its place and function in national economy system.

**Key words:** innovation system, innovation development, state innovation policy, small-scale innovation business.

**Introduction**

At the present time researches have been being actively conducted in the field of innovations, leading specialists all

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over the world investigate the issue of innovative development. Today the global development trends provide talking about formation of new economics of knowledge based on transformation of innovations into the major factor of growth. Development of regions is determined by the scientific and technological progress, and territories, where the conditions for innovative activity have been provided, win the global competition. This moves the problem of innovation systems research forward the rate of essential scientific-theoretical and practical tasks. In spite of the fact that research work has been being actively conducted in this field, the necessity of further studying theoretical and practical aspects of complex infrastructure functioning and institutes of innovations still remains. The specified circumstances determine the applicability of developing theoretical and methodological and conceptual approaches, analysis of the current status of innovation systems of different territories, as well as giving consideration to realization methods and improving innovation policy in this field.

Scientists talk about the fact that studying the national innovation systems (NIS) in the world is comparatively new research area, wherein some researchers recognize their task in developing the theoretical basis of NIS development (NIS theory), while others – in formation of NIS conception (conceptual approach) [1]. Originally, the theory of innovation systems of the Englishman Christopher Freeman put the task of only explaining the national differences in the level of technological development, but later elements interrelation of innovation systems came out on top in this field of innovation studies. As defined by Christopher Freeman, NIS – is a net of institutes in state and private sector, which, when interacting, initiates, imports, modifies and spreads new technologies. At that, institutes hallbeunderstoodasa system of behavior standards and economic policy instruments, and technology is understood as – methods of economic management and strategy of production and information factors processing [2. p. 5.]. Y.A. Doroshenko indicates that “the interrelation of content of innovation activity and forms of its development predetermines principle content place, and the form –its particular part, which is modified, depending on particular conditions of its existence...form of developing, possessing relative independence, has the adverse effect on innovations essence: the form, which corresponds the content, accelerates its development, whereas the form, which does not correspond the changed content anymore, thwarts its further development”[3. p. 25].

The aim of our research is to analyze and give a description of Russian national innovation system on the basis of the theory of innovation systems of different levels, as well as reveal advantage factors and barriers of innovation business development within this system for the purposes of developing efficient approach to understanding the problem of slow innovation development and elaboration of specific measures regarding its solving. The tasks, which we focus on, above all are studying the theoretical and methodological background of approaches to understanding

innovation systems, then, the analysis of the modern status of Russian national innovation system and studying national innovation policy and strategy of innovation system formation, as well as measures regarding realization of efficient mechanisms of innovation systems of different levels functioning.

The object of our scientific research is national innovation systems of different territorial level. To such systems, we refer national innovation systems, regional innovation systems and municipal innovation systems. The subject of our scientific work within this research is the problem of non-conformity of the current status of innovation climate and environment to the requirements of providing the most favorable conditions for business development, as well as fragmentary and disconnected character of innovation infrastructure, which is all in one prevents considering the innovation process in Russia within the bounds of national innovation system in its classical concept.

Theoretical investigations of our research paper will provide gain in scientific knowledge in the field of examining area of innovation studies, and the practical relevance of the research involves the applicable character of its results. Conclusions, made during the realization of our research, can be applied by authorities of governing institutions and legislative regulation of innovations for the purposes of improving the conception and approaches to the formation and development of innovation systems of different levels, as well as by other bodies of innovation activity for the purposes of its more sufficient operation. Results evaluation can be performed when working out strategies for innovation development of regions and municipal corporations.

### **Theoretical and Methodological Background of Approaches to Innovation Systems Understanding**

When carrying out theoretical analysis of innovation systems and realization of its functioning, it is prohibited to allow the logical substitution of systematic approach by considering innovative activity to be complete closed system. Herein the feature of novelty is appeared to be systemically important category. The interrelated components carry the feature of novelty as a subject of differentiating from pre-system. It is possible to include into systems only such components, which are essentially required, which optimize integrality.

Innovation system includes material and intellectual resources of innovations on inputs, being created innovation and market, external environment on outputs, as feedback. Research workers identify 4 basic approaches to understanding the national innovation system [1]:

1. As defined by Christopher Freeman, NIS is considered to be as a complex of institutes, the activity of which is focused on generating and diffusing of innovations(practical, commerce approach),
2. As defined by Bengt-AkeLundvall, NIS is considered to be as a complex of interrelated economical mechanisms and types of activity, providing innovation process (functional approach),

3. As defined by M.Abramovits, NIS is considered to be as a part of national economical system, providing organic integration of innovation processes into progressive development of economy and society.

Russian scientists generally follow first two approaches, which is reflected in different scientific works, as well as in documents of regulatory and programming character. At this, the stages of NIS developing are distinguished, which are characterized by the following: by using technologies, adapting technologies and creating technologies. At the same time, some authors believe that "modern processes of states integration, having area-based and spotted character, due to politico-economical and other reasons, make it possible for us talking about inter-county/transnational innovation systems, emphasizing by that the availability of certain complex of countries, which are also involved in active scientific-technical cooperation...have been concluded that availability of transnational innovation systems (TNIS) (as features of "pre-global") is caused by fragmentarity and incompleteness of global innovation system" [4.p.50]. Thus, A.V.Zarkovich is of the opinion that "due to the fact that economical system, when transforming from one type to another one, is being in transitive state for certain period of time, than innovation system as well during the process of its developing, goes through transitional phases" [4.p.49].

Within the frames of the modern conception of innovation systems, the formation of trans-systems of transition periods is caused by the following reasons:

1. Regularity of transitive period in systems development at qualitative transition into higher level;
2. Necessity of studying the current state of innovation systems, the majority of which are in boundary or intermediate stages of development;
3. Reasonability of studying trans-territorial innovation systems for revealing inhomogeneity and drawbacks of its structure.

Looking into the matter of the problem of innovation trans-systems, it is required to add that reproduction capital of region is considered to be the open system. In that regard, it is interesting to refer to the research of the Russian scientist A.I. Vostretsova, who has analyzed the rates variability, which characterize interregional floating of innovation potential and the risk level of trans-border movement of reproductive potential. At that, this scientific researcher for the purposes of the risk level evaluation has suggested applying average value of potential input and output. The risk is as higher, as the variability ratio of input-output is high, negative for stable economical growth due to the reason of components drawbacks themselves, as well as impossibility to produce secondary components of potential without the first ones. "The connection of regional risk with moving of reproductive potential is shown in the fact that the variation in processes of interregional floating of its different components may lead to insufficient

reproduction of required resources and factors in region, excessive growth of one component and weak growth of the other one, which, in its turn, will effect negative the value of aggregated reproductive potential, lead to its structural “unsyn chronization” and, as a result, exert negative influence on reproduction of regional product”[5. c. 133], at that, the author recommends supporting the stable innovation potential input and output on one level, when tending to import at maximum, and export – at minimum, which is oriented on potential growth and achieving long-term high-quality economical growth.

As can be seen from the above, we agree with the opinion of E.V. Morgunov and G.V. Snegirev, who think that modern global economy is characterized by “necessity of continuous growth of productive efficiency under the conditions of primary resources limitation, that is why in this system the rebuilding of components and relations between them constantly is being performed”[6].Infact, nowadays sweobserve with our own eyes the processes of destruction, occurrence, merging and division of innovation systems, that is why more comprehensive focus on the borders of understanding is required. Moreover, in the contextof developing tendency of the world economy, it has become actual to study territorial innovation systems at the macro level (NIS and RIS), as well as at the meso (TNIS) and micro (MIN) levels.

### **Analysisof The Modern Status Of Russian Innovaition System**

Originally, at the bottom of formation of Russian national innovation system there were so-termed approaches of “5 I”: institutes, infrastructure, innovations, investment, and intelligence. This has reflected the Conception of long-term social and economic development of the Russian Federation for the period up to 2020, Strategy of innovation development of the Russian Federation for the period up to 2030 and other documents of strategic sense. StartingfromthemomentofformationofthescienceinstitutioninRussiainXVII century, appearing and developing of own scientific system during the period of founding the first university by Lomonosov, entering into competitive activity of scientific systems for industrial development, mobilization and breakthrough during the period of the Great Patriotic War, gradual slow-down of scientific development rates during the soviet period and demise of the old system and beginning of formation, Russian NIS have been sufficiently segmented and inhomogeneous. With regard to the current stage, than during the period of 2003 up to 2009 active attempts have been made towards the growth of innovation infrastructure: by2010 more than 80 technology parks have been registered, 100 technology transfer centers have been operated, as well as 10 national innovation centers, 86 scientific and technical information centers, 62 business incubator-zones, 15 innovation consulting centers, 13 populated centers (mainly in the Moscow region) have become the status of the Science cites, systems of pre-seed and seed financing and venture funds with

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government participation have been created.

Yet, taken steps, having a direct relation to innovation development, do not provide the formation of integral system. At the present time, we are able to talk of the fact that the innovation activity infrastructure is not fully-contained, and created components need harmonization, fragmentarity prevents providing uninterrupted innovation processes at the most important stages. According to A.V. Malashevskaya and E.A. Stryabkova, the key problem of Russian NIS is the small demand for innovations and ineffective structure [7]. The point is that neither private, nor state sector do not demonstrate any interest in implementation of innovations. At that, innovation activity requires even more financial resources involvement: thus, at innovation products volume growth, expenses for technological innovations grow rapidly. Technologists explain the lowlevel of companies' capacity forassimilation and adoption by the fact that innovation behavior of the most Russian companies is focused on passive technological assimilation.

As the main drawback of territorial innovation systems of Russia, Bengt-AkeLundvall has named "institutes", which he defines as "system of standards, rules and relations in economy". This scientific research erbelieves that in Russia "the absence of trust and economical breaches of the law prevents the development of all innovation system", as well as the fact that for the purposes of overcoming these difficulties, it is required to generate public general solidarity of new type of struggle against corruption, criminality in Russia, as well as "the changes in the system of motivation are required in such a manner, so the creative approach to the purpose would be encouraged both among hired works and among entrepreneurs" [8. p. 4]. Indeed, "the high-quality level of developing of innovation infrastructure determines the duration of the innovations realization process, generates a higher-priority list of innovations, provides reaching the commercial, budget, and generally – social effectiveness of innovation production", - as noted by O.V. Vaganova [9. p.94].

However in general science, production and business develop as per their own patterns, often not interrelated with one another. As consequence – problems arise, among which it is necessary to emphasize: growth of technological inferiority from advanced countries; deterioration of the competitiveness of national education; low percent of purposeful job obtaining among graduating students from national universities; disruption in cooperation of universities with production entities and experimental bases; removal of costly knowledge-intensive specialties; graduating student nonconformance to demands of innovative production. The main restraint of innovation sphere development is a shortage of qualified personnel. Unfortunately, technological base in Russia is being renewed very slowly, and basic investments are concentrated in export-oriented industry, the innovation infrastructure basically has not been created as well, but the most important is that innovations are not in demand of business. In Russia only 8-

10% of innovations are commercialized, whereas in the USA – 62%, and in Japan – 95%. More than 70% of innovations are intended to minor improvement or supporting the existing technologies. Only 30% of all inventions had title of protection for industrial property, and 75% of inventions did not have quality and safety certificates as all [10]. It is interesting that the percent of non-government expenses for GDP in Russia has been amounted to 0,5% GDP, and in Germany and Korea — almost 2 %, and, for example, in Japan — 2,5%. In the Eastern countries, which economy is traditionally based on centralized planning, the state finances more than 60% of expenses for science. In Western European countries about 70% of the total volume of funds, investing into this sector, are accounted for by the private sector, and in Japan the investment volume of the private sector amounts to 80%. Traditionally engineering manufacture and chemical industry are considered to be the leaders in the field of funding for innovations: such manufacturing fields, which cannot exist without constant innovations.

Inefficient usage of credit resources can be named among other barriers of developing the efficient national innovation system (short-term investments), improper use of amortization and investments (capital consumption), and management high bureaucratization (high transaction costs). Small business in such conditions is focused on less risk-related spheres, small and medium business is limited in participation in innovation process.

### **State Innovation Policy and Strategy of Developing Nis**

According to the definition, suggested by V.G. Medynskij, “state innovation policy – is a component part of social and economic policy, which express the state’s attitude towards the innovation activity, determines aims, directions, activity forms of state government bodies of the Russian Federation in the field of science, technology and realization of achievements of science and technology” [11. p. 38]. P.N. Zavling gives the following definition of innovation policy “is a component part of the state social and economic policy, determining the strategy and mechanisms of support of priority-oriented innovation projects” [12. p. 26]. We can as well consider innovation policy as a complex of measures aimed at generating favorable innovation environment, stimulating industry demand for the results of NIR and high technologies, generating more efficient protective mode of intellectual properties rights; using motivations for developing of small innovation enterprises, support of innovation infrastructure and encouragement of cooperation nets. From the other hand, innovation policy of business entity (enterprise) represents a complex of directions and stimulation techniques of business mechanism for manufacturing new types of products and technologies. Innovation strategy is a strategy of surviving and developing at the present time for small and medium enterprises, innovation strategy of region and county shall consider interests of economy parties –both as being in the sphere of innovation activity, as well as outside it. The equity principle of innovation strategy

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realization at the government level means that the possibility of attempt to lead the innovation activity shall have all bodies of small and medium business (business-incubator, business-angel, venture funds and etc.). Except the fact that the rational strategy of NIS formation supposes strengthening of trust of Business bodies to each other and coordination of borrowings by entrepreneurs of different branches.

A well-known scientist Lundvall states that a state historically played the major role in actualization of breakthrough. The demand for developing unified model of government control of territorial innovation systems is as well high, in the function of its base it can be effectually to use components of the soviet infrastructure of innovation provision (bureau of realization and innovation - BRIZ, All-Union Society of Inventors and Efficiency Experts, scientific and technical society and etc.). Components of innovation infrastructure, generated at the present time in regions (business-incubators, packing companies, innovation-technological centers, technopolis and techno parks) stand down the soviet analogues due to its purely pragmatic-commercial orientation, lack of continuity and absence of unified approach to realization of innovation progress. It is required to have a clear notion of in what form, where and how to perform organizational, technological and economic impact regarding unifying innovation capabilities of enterprises and state authorities regarding the particular regional conditions. "The operational practice of determination of research and technology priorities is aimed at supporting existing institutional entities", - modern scientists suppose [13.p.186]. According to BengtAkeLundvall, innovations are the interactive process, supposing high-quality cooperation and communication, which explains in particular the fact that investments in science are not guarantees of creating effective innovation economy, as it is not sufficient to develop single components of system, but it is unreasonable to focus efforts on a matter of developing mechanisms of interrelation of its components. Besides, according to BengtAkeLundvall, - "innovations almost always - are the result of joint efforts" [8.p.4]. The solution of this problem will correct unbalance regarding development and usage of innovations and provide restructuration of region economy, required for changing-over to innovation type of development.

Taking into consideration the global tendencies, which caused reasonability of business entities of all level crossing-over to innovation type of development, the actual problem is the formation and realization of corresponding strategies. V.M.Polterovich describes three types of strategies of NIS institutes formation: territory shock treatment (simultaneous and radical change of institutes system), growing and strategy of intermediate institutes. At that the scientist writes that "the strategy of intermediate institutes provides building institutional order, the final element of which is modern NIS, which does not stand down the western systems as per efficiency. Intermediate elements of this order shall be adequate to the corresponding stage of the country development. The strategy of intermediate institutes

– is the creation of desiring institute by means of building a chain of (intermediate) institutes, interchanging each other – institutional trajectory in suitable institutional space. Intermediate institutes provide easing the restrictions – cultural, institutional, technological and resourcing, which prevent further moving” [2].

In this regard the necessity of equal territory development within the terms of national social-economical systems, determines the concentration of attention on regional and municipal innovation systems. Measures regarding practical realization of strategy of innovation development shall be referred to the potential and conditions of particular territorial system: these measure shall be focused most of all on overcoming negative factors of innovation process of each particular region, depending on its place and role in this process. That is why, one of the practical aspects of strategy realization of developing these subjects of innovation activity is evaluation of their potential for the purposes of determining the place and role in national innovation system, as well as for developing a complex of measures regarding speeding up and raising efficiency of development. We suppose that as unified comparing quantitative values for evaluation of innovation potential, it is reasonable to apply index of competitiveness, index of developing of human potential, index of net readiness, index of territory innovation activity, index of territory investment attractiveness, development conditions index (real property assets and infrastructure, human resources, financial resources, administrative environment and safety, suppliers' system).

Among basic characteristics of innovation infrastructure, which provide its efficiency and functionality, O.V. Vaganova indicates high scientific and technological capability, sufficient level of integration with financial and credit source, development of informational component (which provide gain of innovation experience), high flexibility and adaptability, universality (possibility with equal efficiency to realize innovations in different economy sectors), decentralization (possibility at the regional level to solve problems of the whole innovation cycle), professional competence of parties of innovation activity, infrastructure completeness, appliance of economical and social approaches principles [9.p.94]. It should be noted that the availability of training system of corresponding skilled workers is considered to be the main component for basis of creation the analogous infrastructure. In addition, important factor of NIS development is rising prestige of entrepreneurs as initiative people, developing new business on the basis of innovation ideas, commercializing innovations. According to T.N. Pokhilko, "the formation of competitive business is aimed, first of all, at actualizing the most effective investment - into a person, who is capable to generate and push forward new ideas...development of small business cannot be completed without regional interference of Local authorities" [14.p.29].

The modern scientific and technological policy if characterized by insufficient volumes and low diffusion rate. The

Soviet science was characterized by large scale, complete government financing and centralized control, the modern volume of investments into innovations is not capable to provide full-scale technological breakthrough due to a variety of causes. However, Lundvall notes "it is not right to concentrate peculiarly on scientific studies and developments" [8.p.4]. "Carrying out own developments reflects the enterprises' interest in innovations and stimulate growth of contacts with third-parties, and scientific research units, performing scientific and technological information processing, are important sources of information for correcting competitive strategy of enterprise", - as A.V. Yudin and S.A. Gusev point out [13.p.185]. Supportive and improving pseudo-innovations do not require long-term preparation and sweeping technological changes, but in a few years, they stop giving any economic benefits. At that, the sphere of developing new organizational forms and structures of innovation activity becomes an independent market (techno parks, training centers, clusters, business-incubators, technology transfer centers, packing companies, specialized trading floors).

### **Measures of Effective Realization Of Mechanisms Of State Innovation Systems**

Besides well-known measures of strategy realization regarding development of innovation systems - effective state control of the innovation market, creation of innovation infrastructure, investments in science and education, according to domestic and foreign experience, it is reasonable to use instruments of competitive recovery of territories, development of intellectual capital, supposing as well population general welfare gain (Gross Regional product growth), as well as stimulation of the clusterization process. Clusterization effect can be evaluated by comparing results before and after integration, at that it shall be considered that during the integration and after it, a range of expenses arises. Usually the prime cost of a unit product or service in cluster is less than outside of it, the expenses reduction occurs for business-processes, also clusterization provides the involvement of new and non-usable capacity, which leads to the volume growth of products. In order to understand whether it is worth to cooperate or not, it is required to compare the additional income and additional expenses. Since the integration forms can be different, than the basket of factors for costs savings will be as well different: scale economy, complementarity and combination, changing of financial possibilities, vertical and horizontal integration (reduction of transaction expenses), improvement in quality and efficiency of control. S.N. Shevtsova and A.S. Troshin indicate that the availability of large-scale enterprise or scientific school, determining innovation economical or any other strategy of the whole system is the basis of cluster mechanisms[15.p.147].

Innovation process in foreign and domestic scholars' works is presented by several stages, which can be characterized in general as the research stage, development stage, commercial introduction and realization of innovation product.

T.U. Nikulina notes that innovation process can be presented in different regions in complete or incomplete view in dependence on financing, staff policies and other factors. Innovation process in complete view is represented as innovation cycle, which the author suggests dividing into 4 groups: "information and knowledge", "innovations", "production" and "consumption" [16]. In that regard, this author suggests using the factor model for determining the priorities of RIS development or the choice of prevailing model of innovation development of region. This model shows that, for example, for realization of the first stage of innovation cycle, the availability of worthy development level of scientific and technological, infrastructural and staff component of innovation potential is required. If in regions scientific and technological, infrastructural, staff and environment components are developed, than the realization of the second stage of the innovation cycle is possible. For the purposes of realization of the third stage of innovation cycle, the availability of technological, industry and staff components is required. For the purposes of realization of the final stage of innovation process (consumption), the infrastructural and environment components are required. Such system-oriented analysis provides getting the reasonable idea of possibilities and limitations of innovation development of region and provides choosing the management mechanism and instrumentation of the region innovation activity. Consequently, for the purposes of measures realization regarding the improvement of territorial instrumentation environment it is important to consider the stage of development of innovation process in general. According to V.M. Polterovich, "at the stage of imitation, large-scale enterprises and the bank system play the crucial role, and while moving towards the innovation path of development, the role of small-scale and medium-scale enterprises and financial markets grows" [2].

Taking measures regarding the improvement of state innovation system, it is required to be focused on international experience, but as well consider the national features of the country. In general, the state interference is a popular instrument of speeding up the reduction of technological inferiority. In this regard, the experience of USA, Japan, Great Britain, Canada, France and Israel is of the prime importance, which, without any doubts, shows that the state shall be actively engaged into carrying out the innovation policy. The main aim of the innovation policy consists of integration within the terms of organizational and controlling regional process of attempts regarding the efficiency growth of innovation activity in different "points of growth", in other words RIS building requires restructuration of the region economy, emphasizing the competitive advantages (vivid innovation potential) and innovation resources (hidden innovation potential). In the field of modeling the innovation system, the unified balanced explicit methodology shall be applied in according with the innovation policy of the region. Integration processes of regions will determine the innovation development of the country, national innovation potential, which will be gaining by

means of economically developed regions. Lundvall, giving comments in his interview regarding the modern status of national innovation system, as well notes that the emphasize for the purposes of NIS development shall be made on modernization of the education system and the labor-market,as well as work organization by means of labor-market reforming (creating the flexible system of social guarantees) and system of education (providing the equal access to education). At that, Lundvall supposes the experience of Finland (pragmatic approach) and Norway (cooperation between labor units and employers' organizations) regarding the creation of NIS to be positive, and Great Britain and Sweden - negative due to the negative attitude of private sector towards the state, mended labor relations in a bad way and excessive focusing on turning scientific researches into innovation - correspondingly [8].

According to V.M.Polterovich, the effective method of NIS formation is the creation of intermediate institutes: "At the initial stage, it [the strategy] shall provide the mechanisms creation, which allow the growth of absorbing capacity of the country. While moving towards the world "technological border" they shall be gradually added by institutes of self innovation development" [8.p.3]. V.M. Polterovich studies the factors of absorbing capacity and types of its measuring, the mechanisms of borrowing, which are typical for economic policy on the basis of interactive scheduling. The main goal of innovation business - is increasing benefits of its participants. When solving the problem of integrating the linear and multiple system of innovations in most cases the non-conscious conflict of two paradigms exists: "supporting the innovations and supporting the particular subjects of innovation activity" [2]. We suppose that the main block for innovation development of country is subject lessness, absence of subject of innovation development, realizing its aims, interests, strategy and techniques, possessing the required political will and capable to achieve the solutions of the set up tasks. First and important steps for appearing such strategy subject - is the project of formation and attitude development of a subject, innovation elite, capable to make particular this image of the future real. At that, the realization of the principle of choosing the directions priorities plays the major role, as well as focusing the project on achieving final results, adhere to systematicity and hierarchical patter of organization of innovation processes and so on.

## **Conclusion**

During our research, we came to a conclusion regarding the reasonability of applying evolutionary approach to the formation of state innovation system, since traditional static approach has emptied its efficiency in the conditions of rapidly changing global economy. We suppose that the national policy of selection of priority branches for the purposes of intensive support will not lead to success, since the innovations in all branches and spheres are required for the raise of economy. The state partial partnership is not enough for creating the conditions of moving towards the

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innovation development. At that, in terms of lack of possibility to produce innovations by own efforts, it is reasonable to focus on more beneficial borrowings and imitations.

We agree with V.M. Polterovich that primarily it is required to develop bank crediting, clusters, techno parks, stimulate direct investments into innovation projects and joint entrepreneurship, as well as increase support of original scientists; at that, incubators, start-ups, venture funds and financial markets have secondary importance [2]. Indeed, first and foremost, it is required to create bases of trust in business-environment, form demand for high technologies, coordinate innovation activity in different branches and provide gradual modernization of production and moving towards the system of indicating planning. Considered all, it is required to raise the level of innovations acceptance or absorbing capacity of the county economy.

Large-scale companies due to different factors do not tend to invest into Research and Technological development - they are not very perceptive to innovations and often are not interested in them. In such conditions, the role of small-scale innovation business raises in economy. At that, the state innovation system is considered to be the environment for more favorable development of small-scale business. The innovation-based development of small and medium business unavoidable leads to its cooperation with large-scale corporations. Gradual involvement of large-scale business into innovation process might happen upon condition of creating research units of labor-saving and implementation character with gradual increasing of innovation component at enterprises themselves.

Generalizing the above mentioned, we may speak about the fact that for effective realization of strategy of regional and municipal innovation systems, it is required to create the following complexes: informative support, inspection, financial-economical support, production-technical support, certification, promotion of science-technological developments and science-intensive products, preparation and staff reskilling, coordination and regulation. Summarizing our scientific research, we may point out the following basic barriers of realization of development strategy of territorial innovation systems: undeveloped social institutions, limited competitiveness, decreasing quality of education, insufficiently developed financial markets, low competitiveness of companies. Obviously, the world economy is going through qualitatively new stage of its development, that is why it is required to focus on some features of moving towards to the economy of modern type: new economic category has formed - human capital, capable to accumulate and bring profits. Small-scale innovation business in modern conditions is one of the most effective mechanisms of realization of human capital, since innovations provide effectiveness of usage not only labor, but capital as well, the state is forced to regulate the direction of the innovation market development and take upon itself a part of responsibility and expenses regarding leading the innovation activity.

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