



THEORETICAL AND METHODOLOGICAL GROUNDS OF INTEGRATION INTERACTION BETWEEN THE SUBJECTS OF INNOVATIVE PROCESS

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Abstract. The article is devoted to the analysis of research in the sphere of innovative theory where some gnosiological gaps are exposed and the systemic classification of innovation essence with three marked methods of approach is represented. Here are defined the term “subjects of innovative process” and main areas of effective realization of integration of innovative process subjects.

The problems of modernization of the Russian economy are still urgent as a lot of decisions taken by the Government don't have positive effects. Nowadays Russia tries to follow the innovative way of development as many highly developed countries do. It is possible only under intensive transformation of scientific research into material sphere. That is why the aspects concerning the interaction of science and business, institutional mechanisms of governmental influence on the development of entrepreneurship, legal sphere of intellectual property and its use. All mentioned elements have different institutional guises and above all act in different ways. From the view point of the theory the most optimal variant is the integrated interaction of all elements promoting innovative development and working for the end result. But the practice has revealed the situations when interests of one element come into conflict with interests of another and it results to the decreasing of the total level of development. So the main task is to form such mechanism of interaction between subjects of innovative processes allowing to find optimal combination of their interests and give new possibilities for accelerated innovative development of the economy.

The analysis of scientific research in the sphere of innovation has elicited some gnoseological gaps which prove the existence of different interpretations for the essence of innovation (Vaganova, 2011). The analysis of existing interpretations allows to define three main research trends (table 1):

- the first group of researchers try to enlarge the sphere of meaning for the notion of innovation and define it as the transformation of the creative idea into the finished product, increment of knowledge with its further realization, real breakthrough in the way of thinking;
- the second group of scientists defining the meaning of the notion considers it as activities (process, scope of measures) in creation and commercialization of innovation;
- the third group of scientists considering the process of transformation of the new scientific result into the element of factors of production emphasizes the final result of the process.

Such typologization of innovation is put into the effect in accordance with nominally marked segments and is not built on the basis of some concrete task. But it cannot be considered as an unambiguous meaning of innovative process though it promotes the visibility of aggregate of studying objects – innovation.

Taking into consideration the wide-spread meaning of the essence of innovation so as many research woks concerning it, it is necessary to give the following notion of this process.

Innovative process is the holistic system of processes which transform theoretical novelties into applied ones and it is based on the observance of the interaction principle by novelties' creators, owners of resources and novelties' consumers concerning the problem of their production and using.

In the context of this article it is considered how separate objects such as enterprises of the definite sector of economy, construction and production departments, research subdivisions, special implementation and counseling organizations put into practice the innovative process interacting closely with each other and with public authorities.

It should be clarified why we use here the term “subjects of innovative process” and do not limit ourselves to the term “novelty creator”. Along with the structure forming scope of objects – novelty creators, authorities controlling innovative process on the federal and regional levels and subjects of innovative

infrastructure in the region, promoting the activity in the investment sphere are in the same scope of objects. That is why we give the classification of the subjects according different levels:

Table 1.

Some variants of the notion «innovation» within the scope of three trends of understanding its essence.

The essence of definition	The essence of notion in the frame of research trends	Authors
Innovation as a creative idea (change)	Innovation is not an invention or discovery... It does not focus on knowledge but on effectiveness, and in business – on economic effectiveness. Its essence has conceptual type rather than technical or scientific ones. Innovator's character feature is the ability to join some separate elements into the whole system. ... It is the successful attempt to find and include into business the last element which is not enough to transform such existing elements as knowledge, goods, customer demand and markets into something new and much more productive.	P. Draker
	Innovation is the change of production organism in the primary structure, i.e. transforming its inner structure into the new state. It concerns products, technology, means of production, professional and qualification structure of work force and organisation.	F. Valenta
	Innovation is the practical use of results of scientific research aimed to the improvement of production process so as economic, legal and social relations in all spheres of society activities.	V.V. Buzyrev, S.N. Strizhkov
	The notion of innovation is ... any improvement supplying cost economy or generating conditions for such economy.	P.N.Zavlin, A.K.Kazantsev, L.E.Mindeli
Innovation as a finished product (final results)	Innovation is the final result of innovative activities implemented in the new or improved product which has been introduced in the market, the new or improved technological process which is used in practice, or in the new approach to the social services.	«Frascati Manual», «Oslo Manual»
	Innovation (the final result of innovative activities) is the new or improved product which has been realized in the market, the new or improved technological process which is used in practice.	The conception of the state innovative politics of RF
Innovation as a finished product (final results)	Innovation is the result of the creative process in the form of developed (or introduced) new use values. But putting them into practice demands changing of usual stereotypes in activity and skills.	A. A. Kuteinikov
	Innovation is the object introduced into production as a result of scientific research or discovers which is different from previous analogue.	V.G.Medynsky, S.V.Ildemenov
Innovation as the process of carrying out some activities	First, innovation is a term which is applied for the description of the first use of a new product, process or a system, second, it is used for the description of the process including such activities as research, projecting, development and organizing of new product, process or system production.	D.Messi, P.Quintas D.Wild
	Innovation includes scientific, technological, organizing and financial activities which promote bringing into commercial service a new (or improved) product or production process or equipment.	M.Dodgson
	Innovation is measures intended for improving the construction of components of resources used at the enterprises so as the production technique and production management; it is measures intensifying the development of production without additional investment.	L.M. Chistov
	Innovation is the finished process from the idea till finished product realized at the market.	J.Cookie, P.Myers
	Innovation is the process of creating and commercial use of product made by brain work as a component of the resource scope needed for innovative activity.	G.D. Kovalev
	Innovation is the process where the invention or the idea acquires economic meaning.	B. Twiss

Subjects of macro level: Ministry of Education and Science of the Russian Federation, Ministry of Industry, Science and Technology of the Russian Federation, Federal Service of Supervision in the Sphere of Education and Science, Federal Intellectual Property, Patent and Trademark Service; political parties and movements taking part in framing and adopting of legislative and other normative legal acts so as in managerial decisions directed to the regulation of the innovative processes in the Russian Federation.

Subjects of mesolevel: local and municipal authority of executive power of RF' subjects; subjects of infrastructure (sectoral scientific and entrepreneurial alliances, technopolises, venture funds, centers of technology transfer, business incubators and so on).

Subjects of micro level: subjects of the sphere of new knowledge production (academic, sectoral and industrial science, science of institutions of higher education); subjects of the sphere of innovation production – innovative active enterprises; subjects of the educational sphere (personnel training for innovative business).

New forms of interaction between subjects taking part in innovative process come to the fore in economy's transformation especially in the period of deep technological shifts.

In accordance with the conception of technological setups, the mankind is now at the stage of gradual resource exhaustion of the fifth one (the rough time period 1980 – 2030) and the formation of the fundamental basis of the sixth setup. In his research in the sphere of long-term mega technological dynamics, the academician S.J. Glaz'ev (2009) affirms that natural formation of the new sixth setup based on nanotechnology has been fixed in the depth of modern fifth technological setup based on microelectronics and information technologies.

In the light of Glaz'ev's conception the only effective recovery from recession is the intensive cooperation of the state with proper sector of economy. Governments of many industrial countries are just involved in this process. But it is not so fast and demands the methodological designing of intensification of subject integration interaction.

Intensification of integration interaction is understood here as the process of accelerated development of innovation, proceeding to action of all subjects taking part in this process. As an economic category intensification reflects the process of changing relations between all participants of innovative activity. It becomes apparent in strengthening of dynamism of innovation, self-development of all participants of innovative process, necessity of its self-realization.

For effective participation of every subject, for purposes of intensification of integration interaction it is used different innovative policy which is directed, on one hand, to stimulating of development of cluster initiatives and on the other hand to creation of favourable environment for the development of existing relations between subjects of innovative process. It may be the formation of innovative cluster when the government makes an emphasis on providing of conditions for innovative production or the strategy of stimulating the demand on innovative products which includes the state order and supply of technology transfer. In both cases it is necessary to define problem zones to choose instruments for integration interaction. So if there is a problem with insufficient critical mass of innovative process participants, then incubator development, start-up encouragement and involvement of new companies can be the instruments of supporting. If innovative process participants have information deficiency, then in this case it is reasonable to make data portals for them, organise the issue of different informational materials and carry out an audit and mapping of competences.

So for the effective realization of integration interaction between the innovative process participants it can be marked out the following areas:

- defining the financial resources for the co-funding of innovative processes;
- defining the territorial localization of separate subjects of the innovative process, the co-funding for analytical research of perspectives of innovative cluster development on the external market and the evaluation of cluster influence on the social and economic development of the region;
- the promotion to the realization of programs of the innovative development of regions, assistance to the formation of the institutional environment for the development of territorial economic zones;
- the development of the informational-communicative infrastructure;
- the promotion to enterprises to the foreign market entry, carrying out joint marketing research and advertising drive, realization of the educational program coordinated with main representatives of the innovative processes, supporting the integration interaction between enterprises and educational establishments;
- supplying of effective support for innovative projects;
- the formation of conditions for the effective development of innovative component of economy including the detection of participants, the designing of innovative development strategy which supply the neutralization of negative factors.

References

1. Glaz'ev, S. J. Mirovoiekonomicheskikriziskakprotsessmenytekhnologicheskikhukladov/ S. J. Glaz'ev // Voprosy ekonomiki, 2009. – № 4
2. Vaganova O.V. Intensifikatsiainnovatsionnogoproizvodstv: teoriaimetodologia: monografiya./ Belgorod: LitKaraVanLlc, 2011. P. 22-23.