LEGAL REGULATION PROBLEMS OF INNOVATIVE ACTIVITY IN THE EUROPEAN UNION COUNTRIES AND THE RUSSIAN FEDERATION

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ABSTRACT

The article is aimed at the consideration of the problems occurring in the field of economic and legal integration of fundamental principles concerning the innovations, the innovation process and the types of innovations. The priority of economy innovation development and the sufficient legal regulation of this process in the global community is determinated in the article. The basic notions of Innovation law such as: "innovation", "innovative activity", "innovation process" are carefully examined and analyzed in detail. The authors have classified the innovation types on various grounds. They came to the conclusion, that there is the necessity to establish a common understanding of the above mentioned notions, to develop the integrated mechanisms to stimulate innovative activity of all innovation process participants. The dominating method of research is a comparative analysis of the basic notions, economic prerequisites and Innovation law.

1. INTRODUCTION

The agenda of innovative activity legal regulation is to define the basic notions such as: "innovation", "innovative activity" and "innovation process". Based on the theory of legal relations it is necessary to determine the subjects of innovation, the object, the content of rights and obligations, as well as a set

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of legal facts, due to which a legal relation occurs, alters or terminates. The complexity of innovation legal relation lies in the fact that the main subject is the state which determines respectively an authoritative nature of the relations.

Besides, the development of legal regulation of public relations arising in the sphere of private law is essential, since the transition to innovative development of economy only with the help of state stimulation and support is impossible.

Highly risky nature of innovation, insufficient legal regulation and the lack of proper state guarantees in the field of innovation cause objective obstacles for the innovative activity of small and middle-size business. The lack of adequate conceptual apparatus makes it difficult to form the state innovation policy as well as a complex legal regulation of a variety of social relations in this sphere.

2. INNOVATION PRIORITY IN THE ECONOMY AND LAW OF ALL COUNTRIES WORLDWIDE

An innovation development within the context of world economy globalization is a priority for all countries worldwide. The Global Innovation Index has been conducted since 2007 by the International Business School INSEAD (France) and is considered to be a global research¹. In 2014, it included 143 countries. The index is calculated with the method that inserts, firstly, the resources and conditions for the innovations development (Innovation Input): institutions, human capital and research, infrastructure, national market development and business development. Secondly, the achieved practical results of implemented innovations (Innovation Output): the knowledge economy and technology development, the creative activity results. The Final Index represents the correlation of costs and effects that allows to evaluate objectively the effectiveness of innovations development efforts in this or that country.

Currently the European Union includes 28 states. Though they all are independent, they obey the same laws and regulations. Their interaction is focused on the creation of a common area without borders and customs for better economic cooperation. According to the present rating, the EU countries are at different levels of innovation development. The top ten are: The United Kingdom (the 2nd place), Sweden (the 3d), Finland (the 4th), Netherlands (the 5th), Denmark (the 8th) and Luxembourg (the 9th). The second ten countries with high innovation index are: Ireland (the 11th), Germany (the 13th). Then come Austria (the 20th), France (the 22th), Belgium (the 23th), Estonia (the 24th), Malta (the 25th), Czech Republic (the 26th), Spain (the 27th), Slovenia (the

¹ https://www.globalinnovationindex.org/content/page/GII-Home

28th), Cyprus (the 30th), Italy (the 31th), Portugal (the 32th), Latvia (the 34th), Hungary (the 35th), Slovakia (the 37th), Lithuania (the 39th), Croatia (the 42th), Bulgaria (the 44th), Poland (the 45th), Greece (the 50th), Romania (the 55th). Switzerland occupies the first place in the ranking. Singapore (the 7th) and Hong Kong (the 10th) are among the top ten countries. The Russian Federation takes the 49th place, according to the Global Innovation Index 2014².

One of the distinguishing features of conducted by the EU policy in this field is the existence and interaction of the EU innovative policy and innovative policies of the EU member states. As the regulation in innovative activities sphere is relevant to the exclusive competence of the member states, the activities of the EU in this area may be carried out only within the framework of so-called "open coordination" mode based on the voluntary cooperation of the member states and the adoption of acts that are purely advisory in nature with their subsequent implementation in the national legislation. As one of the first measures to solve the problems in this area, the European Commission established The European Network of Innovation Relay Centers. The primary duty of these centers is to facilitate the innovative technologies transfer from research institutions to business. Great attention to the development of technology exchange system was paid in "The Fifth Framework Programme".

In 1999 the European Commission launched a project entitled "Trend chart on innovation in Europe" intended to collect and analyze the information on innovation policy of the EU member states, North America and Asia. Within the framework of the EU's Directorate General Enterprise and Industry there is an informational project "PRO INNO Europe" which was created to coordinate the activities of the member states in innovation policy. "PRO INNO Europe" is based on three documents: "Policy Analysis", "Policy Learning" and "Policy Development". Realizing the importance of conducting a common policy in the sphere of innovation stimulation within the EU, a common European innovation policy was formulated in the "Lisbon Strategy", which was endorsed by the Heads of States and Governments of the EU as the result of the European Council meeting in March 2000. The Council of Europe formulated a number of specific goals to stimulate the innovation development. Among them are the increase of the expense ratio for research and innovation activities, primarily owing to the growth of the private sector allocations; further vertical and horizontal coordination of the innovation policy; and creation of a united European research area taking into account the EU expansion. "Lisbon strategy" aims at establishing the most competitive knowledge based economy in Europe.

² The Global Innovation Index. Humanitarian encyclopedia [Internet resource] // The humanitarian technology center. — 15.06.2011 (the last reduction: 18.07.2014). URL: http://gtmarket.ru/ratings/global-innovation-index/info.

European innovation policy received its further development in 2002. Implementing the stated solutions, the European Commission developed an information document "Investing in Research: an Action Plan for Europe" in April 2003. The plan contained recommendations to fulfill specific measures for the member states, which were presented in four blocks. In 2003, the European Commission developed a document oriented at the development of innovative activity - "Innovation Policy: the EU's Approach in the Context of the Lisbon Strategy." Later on, the European Commission adopted another important document for the development of these ideas "Innovation Strategy –Putting Knowledge into Practice"³, which proposed to develop and support the following methods of innovation activities stimulation: the creation and development of the clusters (a system of interconnected companies and research institutions located within the same area); the creation and development of the companies established jointly by research institutions and business; the introduction of tax incentives for innovative enterprises on the national level.

3. "INNOVATION" AS A BASIC NOTION

«Innovation» is a basic notion and a fundamental core of the scientific research, state policy and legislation. The unity of conceptual thinking and legislative regulation, elaboration of effective mechanism of innovation development depend on the unified comprehension of this term.

There is no federal act on innovative activity in the Russian Federation. Laws relating to this issue have been passed on the regional level in many constituent entities of the Russian Federation, and each law defines such basic concepts as "innovation", 'innovative activity', "subjects of innovative activity' independently and sometimes in a different way. Definitions of the subjects of innovative activity, namely, Technology Park, innovation center, engineering center, business center, business incubator, and techno polis are extraordinary original. It is important to note that according to Professor O.A. Gorodov's opinion, they should be considered as organization forms of innovative activity rather than subjects of innovative activity.⁴ This circumstance makes it a lot more difficult to determine the relations, arising in the sphere of innovative activity implementation⁵. It is almost impossible to determine legal status of

³ "Putting Knowledge into practice: A broad-based innovation strategy for the EU», COM (2006)

⁴ Gorodov, O.A., Legal Innovation theory (legal regulation of innovative activity), St-Petersburg, 2008, p. 408.

⁵ Romanchuk, S.V., Problem aspects of innovative activity legal regulation in the Russian Federation, Newsletters of Tyumen State University, 2014, N° 3. Law, pp. 35-43.

the subjects of innovative activity in a uniform way⁶. The European Union countries, oriented at creating common economic space, have so far failed to come to the unanimous understanding and uniform legal definition of the term "innovation". The definition of this term given by the top leading country of the ranking, according to The Global Innovation Index in 2014 is of a particular interest. Swiss State Secretariat of Economic Affairs (SECO) determines "innovation" as a process, technology, algorithm or an idea in the shape of a product, sold on a market with a great success. Innovation support in Switzerland is implemented, primarily, by creating profitable beneficial frame conditions of management. Thus, the State relies rather on the "control of financial flows" then on liberal instruments of market competition.⁷

"The innovation" is an implemented novelty, providing qualitative rise in the effectiveness of the processes or products, demanded in a marketplace. It is an eventual result of an intellectual human activity, creative process, breakthroughs, developments and rationalization. A typical example of innovation is bringing into a marketplace goods and services with new consumer qualities or with qualitative increase in the effectiveness of production system.

The term "innovation" was first mentioned in scientific surveys in the XIX century. Revival of the term "innovation" took place in the beginning of the XX century in scientific research of J. Schumpeter as a result of analytical studies of "innovative combinations" and changes in the evolution of economic systems. Innovation is such an improvement that increases the effectiveness of the current system to a significant degree. In a broader sense, this term can refer to the creative idea, which was implemented. Innovation is the result of intellectual decision investment to the development and obtaining of new knowledge, which has not been used before as a renovation of different spheres (technologies; items; organizational forms of society, administration, workplace management, service, science, informational support etc.) and later usage of it with fixed benefits (profit, outdistancing, leadership, priority, integral improvements, qualitative superiority, creativity and progress). Thus, there is a necessity for the process: investments – elaboration – implementation - qualitative improvements. The aim of innovation is to increase the effectiveness, the economy and living standards quality. Innovation is such a process or a result of a process, in which protectable results of intellectual activity are used, patentable outputs are produced, manufactured goods or services are up

⁶ Shumkov, V.M., The role of small and medium-sized enterprises in enhancing the stability and flexibility of the economy, Topical issues of ensuring financial stability in the region, Materials of a round table, Tyumen, 2010., pp. 79-94.

http://www.seco.admin.ch/themen/00374/00459/04076/index.html?lang=de

to international standards or outnumber them and maintains economic effectiveness in manufacturing and product's consumption.

Innovations are studied from various points of view: relating to technologies, commerce, social systems, economic development and policy-making. Scientific literature presents a wide range of approaches to conceptualization of innovations. In particular, it is pointed out that the definition of the term "innovation" tends to be mixed up with the term "invention" or "novelty", which means the implementation of new ideas. Interpreted this way an innovation can not be an innovation until it is successfully and beneficially implemented. I. Cooke and P. Mayers reckon that innovation is a whole process from the very idea to the end-product, encashed on a market. M. Dodgson's definition proclaims that "innovations include scientific, technological, organizational and financial activity, which leads to commercial introduction of a new product, improved techniques or equipment"¹⁰. V.G. Medinskij and S.V. Ildemenov consider innovation to be "the object, implemented to the production as a result of a scientific research or an invention, without any analogues"¹¹.

The term "innovation" is currently used for, firstly, the description of a newly used product, process or system, secondly, for the description of a process, including such actions as searching, designing, elaborating and organizing the manufacturing of a new product, process or a system. The later meaning often relates to the term "innovation process". The list of "innovation" definitions could be continued. A crucial difference in term's definition is explained by the authors' individual comprehension of it. In this respect, two main approaches are distinguished: innovation as a result of a creative process and as a process of novations' implementation.

Nowadays we can declare the appearance of a new international standard of the notion "innovation" as a clearly defined managerial category. Two research works, known as "Frascati Manual" and "Oslo manual" have significantly contributed to the establishing of this international standard. The definition

⁸ Schumpeter, J., The theory of Economic Development: An inquiry into profits, capital, credit, interest, Transaction Publishers, 1934, Business & Economics, p. 225.

⁹ Thompson, A.A., Strickland, A. Dzh., Strategic management: Art of strategy development and implementation. M., Banks and stocks exchanges, UNITTY, 1998, p. 576.

Dodgson, M., The management of technological innovation: An international and strategic approach. Oxford University Press, 2000, p. 248

¹¹ Medinskij, V.G., Reengineering of innovative enterprise, M., UNITY, 1999, p. 413.

http://browse.oecdbookshop.org/oecd/pdfs/browseit

¹³ Oslo Manual: Guidelines for Collecting and Interpreting innovation data. A joint publication of OECD and Eurostat, Third edition. M., CSRS, 2006, p. 192.

of innovation, accepted in these papers, is commonly used by theorists and experts in managerial sphere. It is taken as the basis for elaboration of Russian legislation on innovations, for working out the concepts, programs and other strategic documents on innovative activity. According to this very definition innovation (novation) is an eventual outcome of creative activity, embodied in a new improved product encashed on a market or a new improved technical process, used in practice. In other words, innovation is a result of new knowledge and ideas implementation, aimed at its practical usage for meeting certain needs and demands of consumers. It becomes obvious that the main features of innovation are: scientific and technical novelty; practical implementation (industrial applicability), presuming its implementation in industries, agriculture, medical care, education and other spheres; tradability and demand for it, which determines the innovation acceptance by the market, which, in turn, means the possibility of complying with certain consumer's needs. Thus, a new idea itself can not be the innovation whether it is thoroughly described, formalized or represented in drawings and schemes unless it is practically implemented in goods, services or processes. Only implemented in a new product ideas and processes are called innovations.

4. INNOVATION PROCESS, CLASSIFICATION AND TYPES OF INNOVATIONS

The concept of "innovation" is closely connected with the concept of "innovation process". Innovation process is the process of creation and diffusion of novelties (innovations). The concept of "innovation process" is broader than the concept of "innovation", because the innovation (novelty) itself is one of the components of the innovation process. The first component of the innovation process is novations, i.e. new ideas and knowledge, which are the result of a completed research, fundamental and applied experimental development and other scientific-technical results. The second component of the innovation process is the introduction, the implementation of innovation into practice, i.e. novelty or innovation. The third component of innovation process is diffusion which is meant as the distribution of innovation that has been already mastered and implemented once, i.e. implies application of innovative products, services or technologies in new places and conditions. ¹⁴ Thus, innovation process is a sequential chain of events from a new idea to its implementation in a particular product, service or technology and its further distribution.

¹⁴ Kruchkova, S. E., Innovations: philosophical and methodological analysis, ., Progress, 2000., pp. 23–37.

The question of innovations classification still remains topical. Established approaches to innovations classification are distinguished on the grounds of creation time and the place of representation. Joseph Schumpeter was the first to propose the innovations classification highlighting five major cases of changes that are identified with innovations.¹⁵ German researcher, Gerhard Mensch, differentiates between basic innovations that provide the basis for the formation of new industries or markets and improving innovations, which have secondary nature and increase efficiency.¹⁶ N. Monchev distinguishes the typology of innovations depending on the nature of basic operations and activities: technological, scientific and scientific-technical.¹⁷ I. Perlaki proposes to classify innovations according to the degree of novelty and modifying innovations.¹⁸ E.T. Grebnev and V.E. Khrutskiy offer technical-technological and socio-economic innovations.¹⁹ Judging by the specifics of the innovation process, A.I. Prigozhin captures intraorganizational and inter-organizational innovations.²⁰ Y.V. Yakovets, based on the scope of application allocates technological, environmental, administrative, organizational, military, socio-political, state and legal, as well as innovations in a mental sphere. According to the field of distribution innovations fall into: global, national, regional, local, single-point.²¹

A comparative analysis of approaches to innovations classification currently shows that it's possible to differentiate all the above mentioned types into two main classes: belonging to the material sphere and relating to the non-material sphere. The first class includes all technical-technological innovations, has a direct impact on the innovation process and directly relates to the development and research in natural science while the second is social in a broad sense of the word, affects the innovation process indirectly and is predetermined by the development of the humanities. Despite the diversity of approaches to building taxonomy-species matrices the main criterion of classification division is the scope of innovation's implementation. Specifically this criterion leads to differentiation of innovations into conceptual, scientific, technical-technological, economic, organizational, managerial, informational and social.

Schumpeter, J., The theory of Economic Development, M., Progress, 1982., pp. 159-160.

Mensh, G., Stalemate in technology: Innovation overcomes the depression. Cambridge, 1979, p. 457.

Monchev, N.V., Development and innovation, M., Progress, 1978, pp. 115–127.

Perlaki, I., Innovations in organization, M., VPPC, 1981, pp. 5-7.

¹⁹ Grebnev, Y. V., The problems of management effectiveness increase, M., Prior, 1984, pp. 9–14.

²⁰ Prigozhin, A.I., Innovation: motivation and obstacles, M., YPPC, 1989, pp. 32–33.

²¹ Yakovets, Y.V., Innovation: theory, mechanism, state regulation, M., Progress, 2010, pp. 8-23.

As for the types of innovations, they are: technological - obtaining of new or efficient manufacture of an existing product, commodity and technique, new or improved technological processes (innovations in the field of organization and production management are not considered to be technological); social - involving the renewal of human life spheres in the reorganization of society (pedagogy, management, charity, service); product innovations - creation of products with new useful properties; organizational – aimed at improving the system of management; marketing innovations which comprise implementation of new or improved marketing methods, covering substantial changes in the products design and packaging, the use of new methods of sales and presentation, the promotion and representation of products on sales markets, formation of new pricing strategies.²²

5. CONCLUSION

State policy elaboration needs thorough analysis and clear determination of those innovations which need to be directly supported by the state as well as those which are to be maintained by the state stimulation of small and medium-sized businesses' innovative activity. Others – vie creation of enabling environment for large companies and public-legal entities.

Nowadays the terms "innovation", "innovative activity", "innovation process", "the subject of innovative activity" are used in laws of the majority of the countries in their general sense regardless to the types and peculiarities of the innovation process participation. Each state due to its geographical and economic specific features requires a comprehensive study of this issue. The legislation on innovation cannot be formed on a common pattern, as the countries enjoy different levels of innovative economy development. Dominating types of innovative activity under the legislation of most countries are scientific-research and experimental-design works (SRED); engineering works, manufacture preparation and carrying out of production experiments; an acquisition of patents, licenses and know-how; investment activity required for innovative projects fulfillment; certification and standardization of innovative products and goods required for their manufacturing; marketing and organizing of innovative products markets; training and retraining of personnel for innovative activity.

The complexity of legislative regulation of the term "innovation", determination of the innovative activity subjects and stimulation of their efforts is explained by the fact that the innovation is considered from the point of view

http://www.innoros.ru/publications/analytics/12/termin-innovatsiya

of technology, commerce, social system, economic development and policy formation. Successful innovative development of economy requires a number of measures aimed at encouraging all the subjects of innovative process: the state, innovative businesses, inventors, intermediaries (venture capital funds, innovative banks, insurance companies, educational and scientific institutions, advertising and marketing firms, intermediaries in registration and protection of intellectual property rights). There is some particular difficulty in determining the contribution of each innovative activity participant in order to work out the necessary stimulation mechanism.

Great Britain exercises tax advantageous concessions for organizations engaged in research and innovation development as a key mechanism of science and high technology development state support.²³. German government takes an active part in determining and directing the innovation pathways as well as the fields of research: up to 80% of the universities research activities are accomplished at the expense of five major scientific societies' grants funding. Since 2004, a number of special funds has been established (mainly stateowned) with the intent to support German risk market of share participation in risky ventures. Scientific and technological parks are also dynamically developing in Germany. A successful model of interaction between high academic institutions and business is implemented in Sweden. It combines the universities' freedom in commercialization of self-created intellectual property and tools aimed at obtaining both the state's and society's benefits from created developments. Swedish Government establishes universities holding companies. Another form of business-government-universities cooperation in Sweden is the establishment of expertise centers that link together several University research groups and partners from industry within the collaboration framework. French legislation traditionally puts special emphasis on protecting the author's interests and legislation on innovation follows the traditions. Research Code («Code de la recherché») is the embodiment of all essential laws and regulations on innovation and research in France. The main regulatory enactments on innovative activity in the USA are the "Bay-Dole Act" and the "Stevenson-Wydler" adopted in 1980. The purpose of both laws is to create the opportunities for private sector to use research results conducted with state financial support.24

²³ Income and Corporation Taxes Act, 1988; Finance Act, 2000; Finance Act 2002.

²⁴ "University and Small Business Patent Procedures Act" or the "Bay-Dole Act" 35 U.S.C§ 200; "Technology Innovation Act" or the "Stevenson-Wydler Act" (Public Law 96-480).

In different EU countries various measures are used to stimulate innovative activity of the innovation process subjects. Top countries in the Global Innovation Index use complex measures, achieving high results. ²⁵

Nº	Measures	Location of realization
1	The right of state research institutions to be participants (shareholders, founders) of commercial innovative companies	Denmark, Spain, France, Sweden
2	Stimulation of joint ventures establishment by academic institutions and business	Great Britain, Germany, Denmark, Ireland, France, Sweden
3	Promotion of innovation technologies usage by small and medium-sized enterprises	Great Britain, France
4	Stimulation of organizations-innovation intermediaries between businesses and innovation technologies creators	Germany, Great Britain, the EU, Sweden
5	Support for technology parks and technology incubators	Germany, Denmark, Sweden
6	Direct funding of innovative companies (grants, concessional loans and other funding programs)	Great Britain, Germany, Denmark, France, Sweden
7	Financial support of ventures in innovation sphere	Germany, Greece, the EU, Sweden
8	Boosting the patenting	Germany, France, Sweden
9	Support for the authors-developers through additional payments for the commercial usage of their inventions	Greece, Denmark, France
10	Permission for civil servants - state research institutions employees- to participate in commercial activities for the implementation of scientific developments	Great Britain, Greece, Denmark, France
11	Tax concessions for innovative enterprises	Great Britain, Germany, Greece, Ireland, Spain, Poland, France
12	Recognition of innovation policy within specially created government bodies' competence	Great Britain, Denmark, the EU, Ireland, France, Sweden

²⁵ Kalyatin, V.O., Naumov, V.B., Nikiforova, T.S., Europe, the USA and India experience in the sphere of innovation state support, Russian Law Journal No 1, 2011., p. 76.

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