



## **Innovation Development of Russia and Participation in the Integration Process of the Asia-Pacific Region**

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### **ABSTRACT**

The article explores the innovation development of Russia and the integration process of the Asia-Pacific region. The analysis based on the evaluation of the level of innovation activities in the regions of Russia, which are the main basis of the innovation development of the whole country. Based on the calculations it was provided the dynamics of the main indicators of innovation activities of Russian regions. It was identified the existing imbalances between the innovation development of subsystem in the different regions. The analysis was completed by the comparison of the global indicators of knowledge-based economy in Russia and the leading countries of the Asia-Pacific region, which actively participate in the different innovation projects of the integration process of the Asia-Pacific region. It was identified that it is very important to develop the innovation infrastructure, the institutional environment of Russian regions with the aim of involving Russia in the integration processes of the leading countries of the Asia-Pacific region.

**Keywords:** Innovation, Innovation Development, Integration Process, Russia, Asia-Pacific Region

**JEL Classifications:** Q4, O3

### **1. INTRODUCTION**

Nowadays, development of the innovation component of Russian economic growth is a one of the main priority of the economic development of the country. The experience of the leading countries of the world shows that a strong economic growth and the increasing level of living standards, associated with the active development of innovation and the involvement of scientific and technical development in the economic practice.

Innovation is an essential component of economic growth, which has a primary impact on the competitiveness of the country in the global market.

Nowadays, there is a high level of investigation activities of the issues of innovation development. Nevertheless, the problem of innovation development of the regional economy are insufficiently investigated. In this aspect, the basis of evaluation process of innovation regional development is the usage of qualitative research methods. It is necessary to investigate the most effective methods and tools of the regional innovation development, as

well as the measures for the future improving of the institutional environment of innovations in the region.

The purpose of this research is to estimate the innovation development of Russia and identify the current and future positions in the integration process of the Asia-Pacific region. Based on the analysis of innovation development of the Russian regions it is possible to predict the spheres of future integration relations in the Asia-Pacific region.

### **2. SPECIFIC FEATURES OF THE REGULATION PROCESS OF INNOVATION DEVELOPMENT FOR PROMOTING THE INVOLVEMENT IN THE INTEGRATION PROCESS**

The innovation development of the country depends mainly on the growth of innovation of its regions. A region is a territorial unit of the country and it is the structure which is a result of the

political struggle and administration governance. The formation of innovation environment of the region is the result of the active development of the national innovation system, and it is provided by the interaction of scientific and industrial organizations, small businesses, and other entities of the regional economy.

The support of innovation activities is provided in the process of the implementation of regional and federal target programs which aimed at improving competitiveness, investment attractiveness, achieving a leading position on the market of products and services. In addition, the formation of innovation environment of the region corresponds to the corporate, regional and state strategic goals and facilitates the transition of the economy to innovation development. However, even in areas which have a high innovation potential, there are barriers to innovation development, and there are many misconceptions and negative factors that could invalidate the results of the innovation development of the region (Figure 1).

It was identified some barriers which form a set of factors and conditions that influence the formation and development of the innovation environment of the region:

- Economic factors - it is the ability to attract venture capital, the growth of own resources, the growth of investment attractiveness of the region, the duality of interests of the regional economy, the growth of innovation financing programs from budgetary sources, innovation activity of regional economic entities;
- Production and technological factors - the innovation development of the region and its organizations, the growth of production capacity, increasing in the level of technological processes, innovation susceptibility of subjects of regional economy, growth in the number of organizations involved in the innovation activities;
- Administrative factors - availability of innovation infrastructure,

government support of innovation programs, training, innovation, focus on strategic management, marketing, the development of innovation strategies and policies.

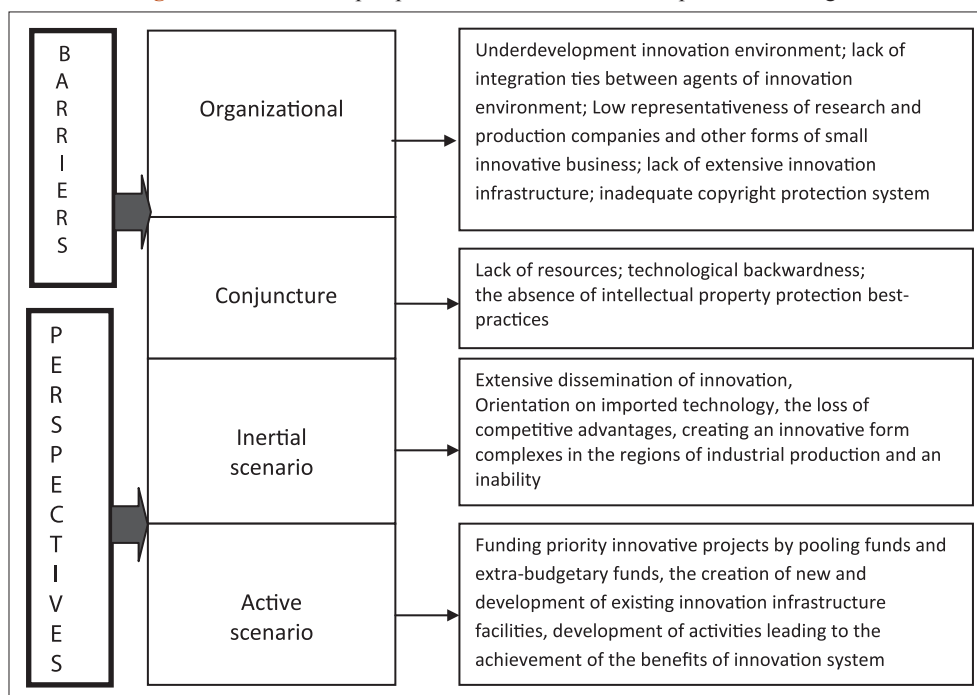
Thus, the scientific and technological development is the process of generating new knowledge and translating it into new technologies and techniques that make up the basis of the modern world economic recovery. Innovation development is the result of a complex set of relationships between system participants - enterprises, universities and public research institutions. In order to take some sustainable positions in the global innovation process it is not enough to have the national market and innovation potential, it is required to have an appropriate institutional environment.

The innovation mechanism has influence on the every stage of the national innovation system. In the process of innovation activity it is formed some basic components, such as: Innovation environment, innovation infrastructure and institutions of governance.

Innovation, as an economic phenomenon, forms the specific economic space with certain components, laws and principles. These elements have a significant impact on the supply of resources for innovation and its results. The governance of innovation development can be represented as three-level mechanism. At the governance level it is generated the main index (gross domestic product [GDP]), which is the main indicator of economic growth of the whole system (Figure 2).

The second level determines the formation of a regional economic effect with the control mechanisms. The mechanisms of the governance of innovation process at the regional level include: The formation of scientific and technical programs and regional structures projects; legal support for innovation; financing of

**Figure 1:** Barriers and perspectives of innovation development of the region



Based on the source: Meierman, 2013; Lenchuk, 2010; Kelle, 2003

innovation; creation of the favorable climate for the effective and efficient usage of resources in the region; the formation of regional funds of innovation development.

The micro level or the level of a particular economic operator (organization) involves the formation of value-added products based on innovation solutions. The company receives additional income from the sales of innovations. Innovation within each particular company significantly affect the quality and quantity of the products and have a significant impact on the growth of added value. The manufactured products included in the gross regional product, thereby, it is formed a regional economic impact from innovation. The purpose of the formation of the regional innovation environment is to ensure the effective interaction by integrating its agents.

The most important thing for the development of the innovation environment in the region is the integration processes which have trends towards globalization of the world economy, and creating the preconditions of effective functioning of objects of the regional economic system.

Integration is a creation of mutually beneficial relations and cooperation, contributing to the formation of structures, acquiring the system properties, which trends to achieve a synergistic effect by combining the process of economic agents, to enhance the interaction between them and the development of the backbone links.

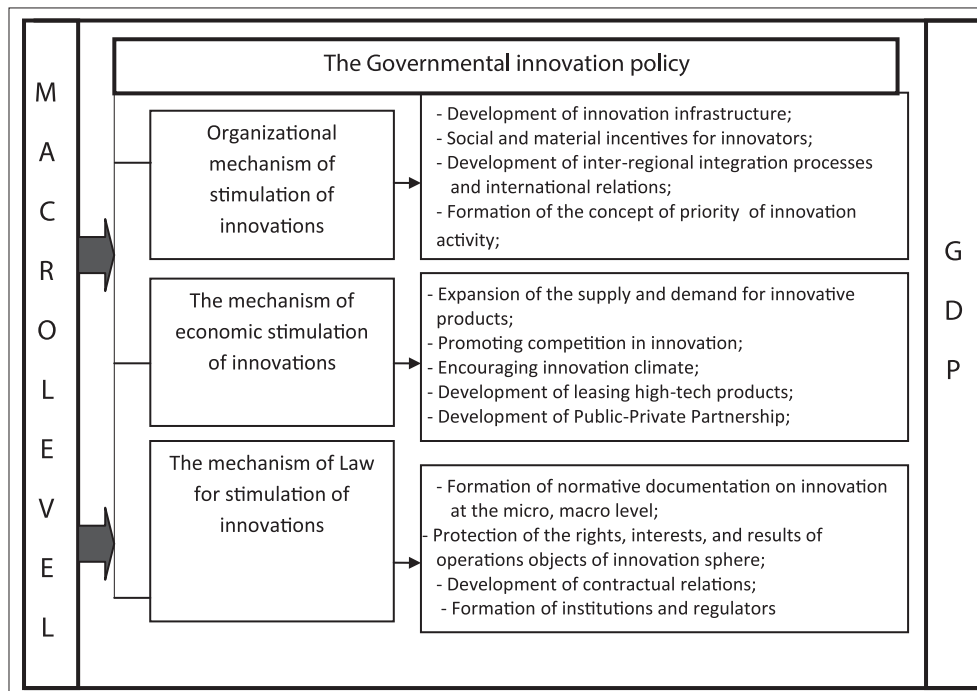
The basis of the integration process is the satisfaction of their own interests, the achievement of development goals and is an incentive motive to the establishment of integration ties. At the same time, the development of integration processes in the innovation environment has its own specific features (Figure 3).

It is necessary to note that the development of the innovation environment is directly dependent on the ongoing national, regional and corporate levels of industrial policy, which is in the advanced economies is recognized by effective method of reconciling the interests of economic entities.

The integration processes in the innovation environment of the region have the evolutionary nature. The integration processes are characteristic for all sectors of the economy, and its intensity increases in the period of deterioration of the economic situation.

It was identified that there are some factors which affected to the development of integration processes in the innovation environment in the region. Firstly, it is some objective market factors, such as the profitability of innovation; consumer loyalty to innovation products and services; supply and demand which determined the relationship between production and consumption of innovation products and services, competition on the innovation market, the cyclical development of the market economy that makes the connection with the business activity of a particular phase of the cycle. Secondly, it is the resource potential of the regional economy: Provision of human resources; geographical location and climate; the condition of the environment, especially the historical development, cultural and business traditions. Thirdly, it is the manufacture and economic potential: The condition of the fixed capital and the degree of its deterioration; a level of technological equipment and specialization of production; the predominant technological pattern; orientation of technical and technological development, industrial policy of regional development; completeness of the market infrastructure; capacity of markets; the level of development of the business sector of the economy; the level of balanced development of regional economy; the development of industry, science and technology, education and information and communication spheres in the region.

**Figure 2:** The mechanism of the governance of innovation development at the macro level



Based on the source: Kelle, 2003; Gamidova, 2010; Hvatova, 2009; Bell, 1973

The background of the integration processes development in the innovation environment are completed of political, legal, economic and socio-cultural conditions.

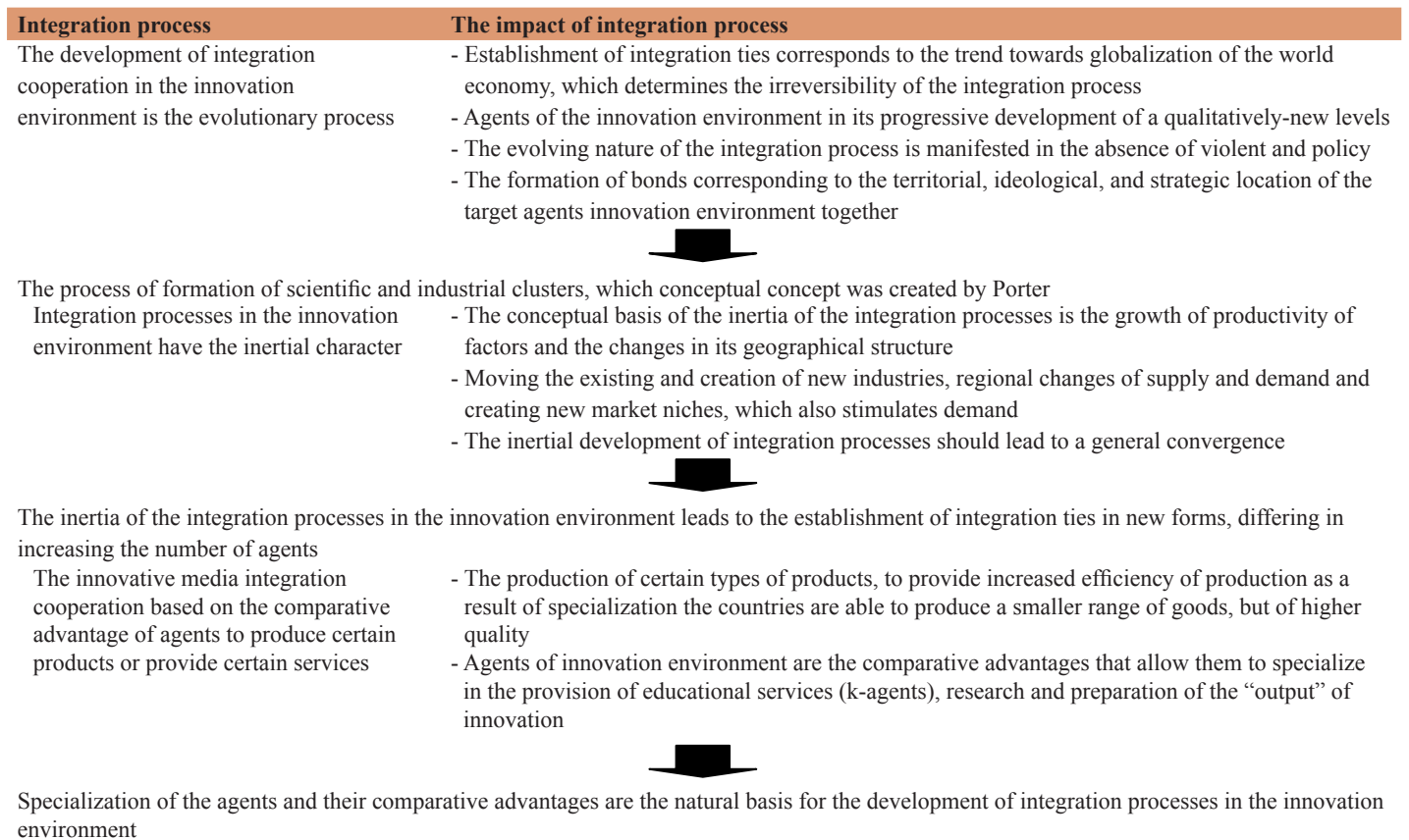
There are some distinctive features of modern innovation environment, such as:

- Increasing role of organizations which actively use new technologies and invest in research and development (providers agents of innovation);
- Growth of attractiveness, efficiency and funding for the training of all the innovation environment of agents costs;
- Development and improvement of the integration process, contributing to the realization of innovation potential of the territory.

The practice approaches for creating the integration relations of the modern innovation environment at the regional level can be characterized by forms of the development of the integration processes (Table 1).

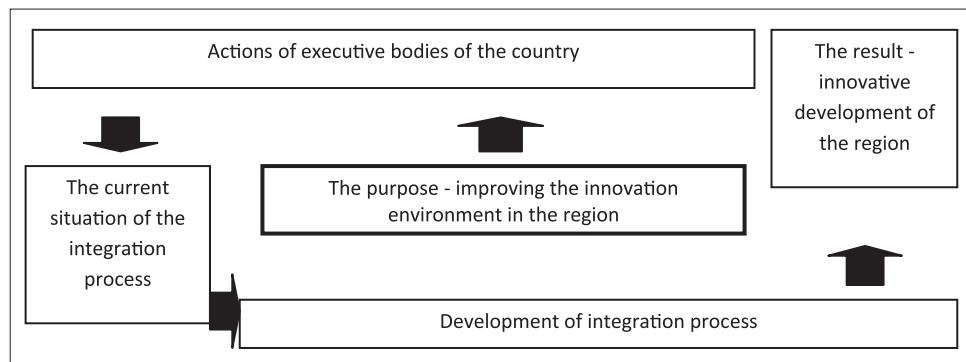
Integration processes promote the development of the innovation environment in the region, while, the development of the integration processes should be regulated by the government. As a result, there is a form of interaction between the managerial relations between subject and object of management. The subject of management is the executive authorities, the so-called agent-managers of innovation, and the object of management - the agents of innovation environment, entering into integration cooperation in order to create innovation infrastructure (Figure 4).

**Figure 3:** The development of the integration process in the innovation environment



Based on the source: Porter, 1996; Lenchuk, 2010

**Figure 4:** Interpretation of the governance of the integration process in the regional innovation environment



**Table 1: The forms of integration processes development in the innovation environment**

Forms of integration processes	Functions	Features of integration processes in the innovation environment of the region
Innovation recipient-environment Network of industry-specific business incubators (technology parks)	Complex infrastructure support of innovation, promotion of its advancement	The aim of integration cooperation is to complete the regional innovation space network structure with a common strategy for its participants. For achieving of this effect is due to the horizontal integration of innovation providers
Innovative donor-environment Center for technology transfer  Technology park	Transfer, consulting, and consumer information  Complex infrastructure support of research and development	The form needs to be improved as well as the increase of innovation on a contractual basis, which leads to the emergence of transaction costs Integration interaction of educational, research, industrial and other organizations engaged in innovation activities (agents, providers of innovation), observed, usually in the early stages of the innovation environment in the region
Independent innovation environment Industrial park (zone)  Innovation and technology center  Scientific-production cluster  Innovation complex	Promotion of research and development, commercialization, and access to scientific equipment  Increasing of the concentration of competitive entities of the regional economy by the development of integration processes, cooperation and competition Structuring of the elements of the regional innovation environment	Territorial localization of providers agents of innovation related to the industrial sector of the region, entering into sub-integration relationships Integration interaction of the innovation environment of agents geographically localized in the centers of regional development Integration processes in the regions with high potential for innovation with the participation of the government authority, the most competitive enterprises and institutions engaged in innovation, universities, research institutes, which do not require organizational and legal support Creation of organizational and economic relations between the elements of the innovation system of the region

Based on the source: Porter, 1996; Goto, 2009

Thus, the formation of innovation infrastructure is carried out directly with the integration interaction. The integration process, as a mutually beneficial cooperation, in the innovation environment of the region should be considered from the system positions, and its effectiveness should be evaluated by achieving a synergy: Increasing the availability of information and technology; elimination of costs which accompany the transfer of innovation; increasing a capitalization of innovation enterprises and organizations of the region; entering a new market with innovation products; inflow of knowledge, information, innovation in the process of integration cooperation.

### 3. INNOVATION DEVELOPMENT OF RUSSIA: ANALYSIS OF DYNAMICS AND SPECIFIC FEATURES

The actual aspect in the evaluation of innovation development of a particular region is a comparison of its performance with the same indicators of other Russian regions. The regions which have a huge amount of natural resources and raw materials, have higher socio-economic development, compared with regions where there is a lack of the resources.

The main indicators, characterizing the condition of innovation development of the country and its regions, reflect the number of negative trends in the sphere of innovation, and identify that there are some serious problems in this area.

In this research it was determined that for the detection of qualitative relations it is mainly used some quantitative techniques and methods of analysis of innovation development of the country and its regions. Based on the analysis of existing methodologies for evaluation of the innovation development of regions (Egorkin, 2012; Lenchuk, 2010; Meierman, 2013) it was taken the statistical method of normalized indicators that reflect the level of innovation development in the regions.

The normalization of indicators produced by the following formula (Formula 1):

$$P_k^{CFD} = \frac{Pk}{P_k^{CFD}} \quad (1)$$

Where  $P_k^{CFD}$  - Normalized concerning to the average of Central Federal District (CFD) original k-index of innovation potential of the region;

$P_k$  - Original k-index of the region;

$\overline{P_k^{CFD}}$  - Average index of CFD of the original k-index.

The average index of CFD of every original indicators of innovation development calculated by the following formula (Formula 2):

$$\overline{P_k^{CFD}} = \frac{N_{i=1} P_k^i}{N} \quad (2)$$



Where  $P_k^i$  -  $k$ -index of  $i$ -region of CFD;

$N$  - The amount of the regions of CFD.

It is the same method for calculating the normalized indicators which relative to the average indicators of Russian regions. The values of indicators according to their normalized values are estimated as: Low level (<0.6); medium level (0.7-1.0); and high level (above 1.1).

The comparison of the indicators of innovation development allows to identify the existing imbalances between the high development of subsystem of innovation, which indicators correspond to the average values of the country and to the macro-region; and the level of scientific and technical development of subsystem in the region.

The research provided the calculations of the indicators of innovation development of Russian Federal Districts. The average indicators of Russian regions provided the overview of the innovation activities of the regions of Russia.

The data represent the ratio of the initial value of the innovation development of the region for each indicator of innovation activity in 2014-2010 and reflect the dynamics of these indicators (Table 2).

The greatest increase in innovation activity is observed in the CFD, the share of innovation enterprises in the total number of enterprises has increased in this period to 27% by 2014. The costs of industrial enterprises on technological innovations have increased to 57%, there is a double increase in the share of expenditure on technological innovation in the total volume of goods in 2014.

The growth of the proportion value of organizations implementing technological innovation in the total number of organizations in

CFD is about 34%, and there is an increase of 2% in the number of enterprises which use advanced production technology, while, it is a decrease in the number of applications for patents.

The decrease trend of innovation activity is observed in the Ural Federal District. The share of innovation enterprises in the total number of enterprises decreased to 23% during by 2014.

The proportion of organizations implementing technological innovation in the total number of institutions decreased to 26%. Accordingly, it is a decrease of 8% of the amount of technological innovation in the total volume of goods. The number of companies used advanced production technology in the Ural Federal District, also decreased to 7%. Nevertheless, the costs of industrial enterprises for technological innovations have increased to 66%, this is due to the acquisition of patents and an active involvement of highly qualified personnel from other regions of the country.

The analysis of the dynamics of innovation indicators in the regions of the CFD showed the predominance of innovation activity in the Moscow region. The volume of innovation products of industrial enterprises of the region has tripled, while the share of innovation enterprises increased to 30% by 2014, as the increase of 60% in the share of innovation products in the total volume of goods. The costs of industrial enterprises for technological innovations have increased to 58%, a rapid increase in the share of expenditure on technological innovation in the total volume of goods in analyzing period (Figure 5).

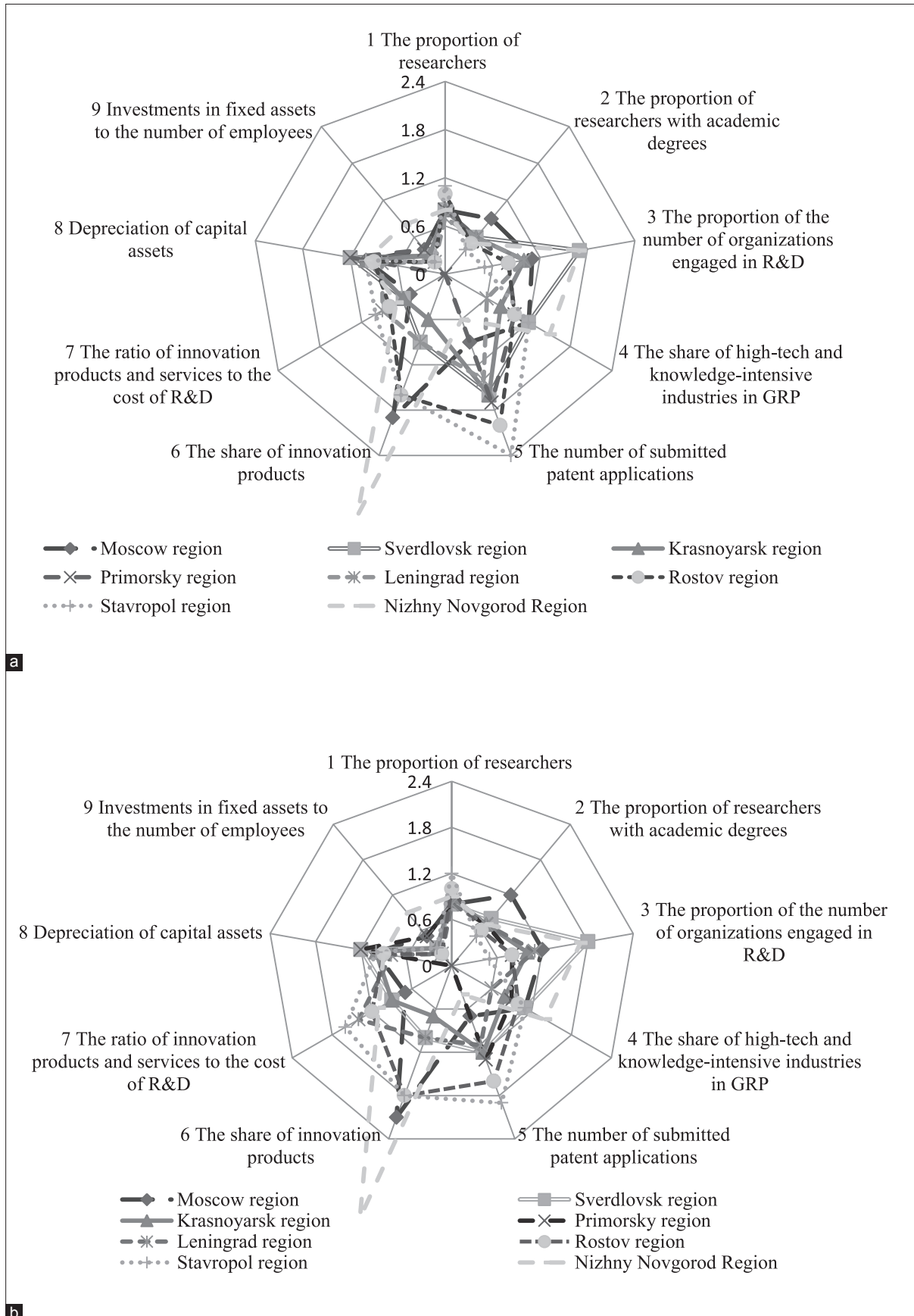
Based on the analysis of the current situation of the innovation activity of Russian regions it is identified that there is a tendency of unequal development of some Russian regions, which situated mainly in the central part of Russia (Figure 5). There is also a negative trend, indicating a low degree of innovation development of Russian regions which have a big distance from the central part

**Table 2: The dynamic of the main indicators of innovation activities of Russian Federal Districts, 2010-2014 (coefficients)**

Indicators	Central Federal District	Northwestern Federal District	Southern Federal District	North Caucasian Federal District	Privolzhsky Federal District	Ural Federal District	Siberian Federal District	Far Eastern Federal District
The share of innovation-active enterprises in the total number	1.27	1.1	1.03	1.05	0.93	0.77	1.07	1.03
The volume of delivered innovation products of industrial enterprises	1.7	1.5	1.6	1.1	1.6	1.5	1.7	1.7
The share of innovation products in the total volume of delivered goods (works, services)	3.8	2.9	1.2	1.0	2.2	1.5	4.0	29.0
The costs of industrial enterprises for technological innovations	1.57	1.67	2.14	1.58	1.69	1.66	1.71	1.39
The share of expenditure on technological innovation in the total volume of delivered goods	2.15	1.71	4.09	1.35	2.63	0.92	1.75	1.38
The number of patent applications	0.86	1.07	0.98	0.42	1.03	1.02	0.95	1.10
The share of organizations implementing technological innovation in the total number of surveyed companies	1.34	1.17	1.06	1.16	1.02	0.74	1.16	1.13
The number of enterprises using advanced manufacturing technologies	1.02	1.16	1.05	0.56	1.04	0.83	1.01	1.11

Calculated on basis of the source: Official Handbook, 2015, Official Handbook. (2015), Regions of Russia. Socio-economic indicators 2015; Official Handbook. (2015), Regions of Russia. The main characteristics of the Russian Federation

**Figure 5:** Aggregated data based on selected Russian regions on the basis of normalized indicators of Russia and Central Federal District, 2014. (a) Aggregated data based on selected regions on the basis of normalized indicators of Russia, (b) aggregated data based on selected regions on the basis of standardized indicators of CFD



of Russia. It is especially clearly identified in the Russian Far East. In this region we can see a very low level of innovation activity, in particular, the indicator of the share of innovation products in the region.

Based on all these trends it can be identified the tendency of unbalanced national innovation policy in Russian regions, where it is not optimized the appropriate mechanism of public-private partnership and some other important points.

It is necessary to elaborate the issues of improving the institutional environment of innovation in the Russian regions, the regional mechanism of the innovation process, the most effective methods and tools of the regional innovation development.

#### 4. PERSPECTIVES OF THE INTEGRATION PROCESS OF THE ASIA-PACIFIC REGION

International economic integration is one of the most important trends of the modern world economy. The Asia-Pacific region is the third largest center of economic integration in the world. It has 60% of global GDP, 49% of world trade, 46% of foreign direct investment, 40% of the world population.

From geographical, political and socio-economic points of view there is no one unified concept of the Asia-Pacific region, which is a mega region in the world. The main difficulty is connected with the definition of the geographical scope of the region. It can be found the concept of Pacific Rim, which include all countries and territories washed by the Pacific Ocean (including the USA). However, there is a narrow concept of the Asia-Pacific region, which mainly say about Asian countries, like North-East Asia and South-East Asia.

This region has a long historical period of integration process.

The first attempt to regional cooperation was in 1925, when it was established the Institute of Pacific Relations (non-governmental organization at the level of academics), which aimed at developing and enhancing cooperation, the elimination of conflicts in this region, and it helped to unite the Asian countries in one cooperation institute.

In the 1960-80s the institutionalization of economic cooperation in this region has taken the path of creation of non-governmental organizations - the Pacific Trade and Development Conference, Pacific Basin Economic Council, the Pacific Economic Cooperation Council, where Japan was the main initiator.

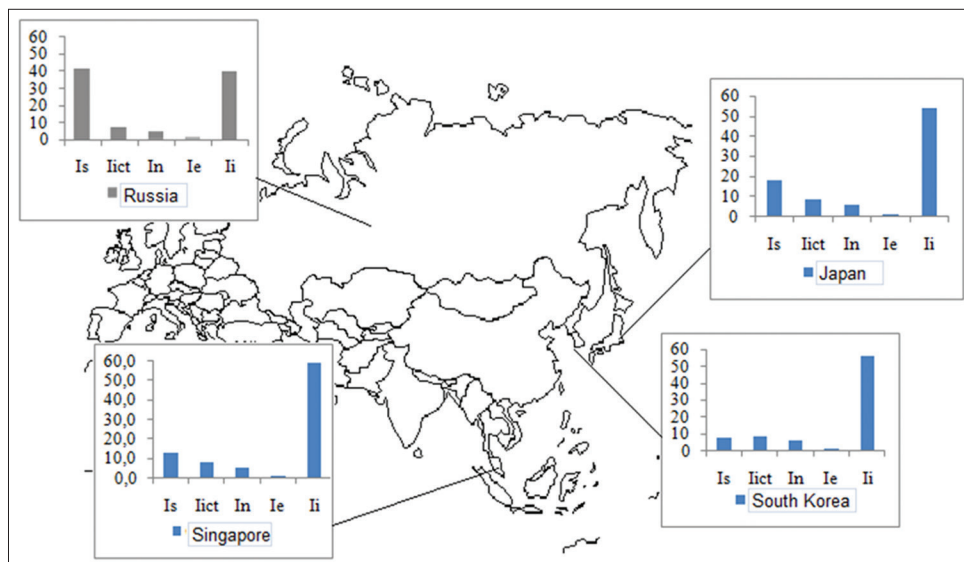
At the end of the 1980s it was marked the increasing economic interdependence, the increase of the regional economic integration, which has led to a shift of the organizational foundations of economic cooperation in the Asia-Pacific region from a purely consultative framework to the intensification of sub-regional integration.

The Asia-Pacific region has a significant experience in innovation development, which identify the high level of the development of the knowledge-based economy. It can be identified some Asian countries which is the most successful in the innovation development, such as: Japan, Singapore and South Korea. These countries have developed their own models of innovation economy and achieved significant results in this sphere, it confirmed by the global innovation indicators (Figure 6).

The Asia-Pacific region has accumulated a significant experience of the various programs of the governmental policy to encourage innovation in various spheres of economic activity.

For instance, in a short period of time the Korean government has provided a great support of the innovation sphere, in particular,

**Figure 6:** Innovation development of some countries based on the global indicators of knowledge-based economy, 2015. Is: Information Society Index, Iict: Information and communication Technology Index, In: Networked Readiness Index, Ie: e-Government Index, Ii: Global Innovation Index



Based on the source: Innovation Economy, 2015; OECD Science, Technology and Industry Scoreboard, 2014; UNESCO Creative Economy Report, 2013; The Global Competitive Report, 2015; The Global Innovation Index, 2014; UNCTAD, 2014



it was created a multidimensional support system for venture business of the country.

Nowadays, the Korean venture enterprises operate in two spheres: Innovation and market (Figure 7). On the one hand, they are actively implementing the market requirements, including the production of high-tech consumer products, on the other hand, they are involved in knowledge-based activities, the development of new technologies, and the accumulation of modern scientific ideas. Thus, the Korean venture enterprises are a synthesis of small business and high-tech enterprises.

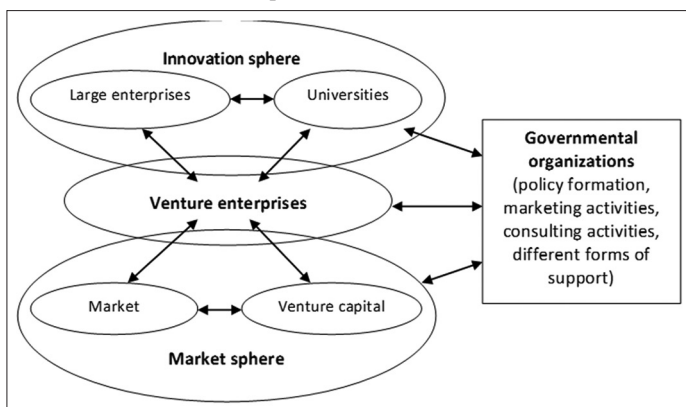
The Korean venture enterprise’s system can be defined as a multipurpose and flexible one, which has a great number of variants for the implantation of production. The support of the government is a key role in this process, which directly or indirectly supports the manufacturer, creates the appropriate conditions for the development, provides the financing and consultancy services. Moreover, this system has a very clear feedback with every specific implementer, as well as a permanent mechanism for the accumulation of information, its systematization and comprehensive utilization. This function is performed by a large number of different kinds of organizations: Small research centers, incubators, technology parks.

Based on this research, we can say that Russian national innovation policy should adopt such support system of the venture enterprises, it can be very useful for the small business, especially in the Russian regions. This mechanism should have a clear interpretation for the private sectors of Russia.

In developed countries, the economic integration began with the liberalization of mutual trade and only then it dealt with the sphere of manufacturing. In developing countries, the integration processes are extended to the sphere of production, and then in the sphere of mutual trade.

In 1960-80s the economic difficulties of developing countries had to be guided not by long-term interests, it was short-term interests and the integration was a tool to improve the levels of economic development and the promotion of industrialization.

**Figure 7:** The structure of supporting activities of the venture enterprises in South Korea



Based on the source: South Korea’s Creative Economy, 2014; Innovation Economy, 2015

The specifics of the current economic and political conditions of integration processes in developing countries have led to the formation of different types of organizations.

Firstly, it was set up a free trade zone. Secondly, in the industrial sector it was created the economic associations of developing countries, which have coordination advisory specific features. The participating countries agreed to the basic directions of industrial cooperation, and in the implementation of these projects it was involved the concerned countries, based on the compensation principle (the distribution of economic benefits was carried out in accordance with the contribution of each participant).

The most efficient in the industrial sector was the associations of the joint implementation of industrial programs, mainly the joint development of rivers. For instance, it is the Economic Union of the countries of Manu River (Africa) and the Mekong River Basin Project (South East Asia).

Thirdly, in the financial sphere the economic cooperation in developing countries was in the creation of regional development banks - the Asian Development Bank, the African Development Bank, the Inter-American Development Bank and others. Their goal is to provide financial and technical assistance to the participant-countries.

Fourthly, for the coordination of positions on external markets in developing countries it was formed the trade unions and it was concluded the international trade agreements.

From the beginning of the 1990s in developing countries there is a tendency to create new integration associations and the signing of new agreements in the framework of the previously created groupings. The causes were: (1) The integration boom in the 1990s, which was typical for different regions of the world; (2) the growth of mutual trade share; (3) tendency to create a region-wide integration groupings. The period of 1990-2010s was characterized by the intensification of the integration projects in developing countries.

Intergovernmental Forum “Asia-Pacific Economic Cooperation” (APEC), formed in 1989, is the third largest center of economic integration. Currently, there are at least 21 countries and territories of the Asia-Pacific region. The APEC members have about 57% of global GDP, 48% of foreign trade turnover, 40% of foreign direct investment and 40% of the world population.

The combination of strong integrating and disintegrating factors in the Asia-Pacific region determined the essential features of the integration process, which differ from economic integration in Europe. The main integrating factors are the dynamics of economic development, the growth of economic interdependence; the tendency to resist the growth of the influence of the European Union. At the same time, there is the strong disintegrating factors in this region, such as: A great economic, political and socio-cultural differentiation of the countries of the Asia-Pacific region, the lack of one unified regional idea, the mentality of Asian people, who does not consider themselves as one nation, as well as various political goals of participation in one integration organization.

Nowadays, we can identify that APEC is an example of the effective trade promotion activities between countries which are at the same time the competitors in the global market.

In APEC, it was developed more than 30 different projects in almost all industries of the economy. The largest working area is trade facilitation. The liberalization of trade and investment climate are the cornerstone of the mission of APEC and the activities of the Trade and Investment Committee (CTI), which became the coordinating body for all countries of APEC.

For development the relations between Russia and some Asian countries of the Asia-Pacific region countries it can be useful the one of the specific feature of APEC – “open regionalism,” which allows to achieve substantial results on the development of cooperation between some countries. The regional integration is analyzed like the element of economic globalization in the terms of “open regionalism.”

“Open regionalism” considers regional integration as an element of economic globalization. The development of the world economy is represented as a process of gradual unification and interpenetration of regional economic unions. Thus, a lot of APEC countries consist of several integration groupings. The concept of “open regionalism” also implies that it removed restrictions on trade and movement of production factors, accepted the obligation to reject the protectionism, stimulated by intraregional economic relations.

The next specific feature of APEC is the development of integration process through the leading role of transnational corporations which create the basis of intergovernmental cooperation. The direct foreign investments, which come from Japan, the USA, China and the Republic of Korea, stimulate internal trade, create a single production chain - from research and develop of a new product to production, and sale of the completed product.

The direct foreign investment played the important role in the dynamics of economic development and the formation of the integration area in the Asia Pacific region. In the 1960s American and Japanese investments were in labor-intensive industries in Singapore, the Republic of Korea, Hong Kong and Taiwan (machine-building, chemical and textile industries). From the end of the 1980s, after the economic growth and development of these countries the manufacturing has moved in economically less developed countries (Malaysia, Thailand, Philippines and Indonesia), where costs were lower. As a result, the focus has shifted from labor-intensive to capital-intensive industries. If the 1950s the main investor in Japanese economy was the USA, in the 1960s for the newly industrialized economies (Singapore, Korea, Hong Kong and Taiwan) the investors were Japan and the USA. The Japanese investment in the economy of the Asian countries have influenced on the nature of the regional division of labor - from the vertical (when Japan imported the raw materials and food, and exported of the finished products to the developing countries) to the horizontal.

Thus, the intensification and increasing of the share of intra-regional trade turnover in the total foreign trade in the Asia-Pacific countries are associated with the intensification of the Japanese

and the US investment, it is identified in a high proportion of intra-firm trade. All these features were the basis for the widespread microeconomic integration at the regional level within the framework of APEC Forum.

Another specific feature of the Asia-Pacific economic integration connected with the assumption of different levels of integration, for instance, the degree of liberalization of foreign trade and sub-regional integration priority above the regional integration trends.

Generally, the integration trends in the framework of APEC have a combination of regionalism and sub-regionalism. The Asia-Pacific region is a macro-region, as it includes some different regions - North East Asia, South East Asia, North America, Latin America, Oceania. Each of these areas have the typical regional characteristics. However, the secretariat and other APEC structure called the Asia-Pacific region - the region and North East Asia, South East Asia, North America, Oceania, Latin America - the sub-regions.

Thus, the specific features of the Asia-Pacific economic integration consists in the predominance of micro-economic integration, which based on a great amount of investments and transferring of technology from American and Japanese transnational corporations, and the priority of the sub-regional integration in the regional trends.

Nowadays, a lot of researchers make different predictions about what processes will take place in this region, what scenario will have the integration process, what countries will play a leading role in East and South East Asia.

Russia is the integral part of the Asia-Pacific region. The successful participation in the integration processes in the Asia-Pacific region is aimed at the socio-economic development of Siberia and Russian Far East. Russia is actively promoting initiatives for the formation of a new architecture of security and economic cooperation in the Asia-Pacific region.

Russia is not only involved in the development of bilateral relations with the countries of the Asia-Pacific region, but also has a policy of active participation in the activities of many intergovernmental organizations, in particular, the Commonwealth of Independent States, the Shanghai Cooperation Organization, the Eurasian economic community.

Based on the results of this research of the innovation development of Russian regions, we can say that the country has a great potential in the innovation activities. Nowadays, the indicators of innovation process in Russia have the average positions, but there is a strong level of human capital of the regions, and the potential of research and development of the innovation products in different industries (chemical, aerospace, medical and other spheres).

## 5. CONCLUSION

Innovation and innovation activities are the key factors in the economic development of the countries in the context of globalization, which determine the structure and rates of growth. The level of economic development of regions and its ability to

maintain stability in a cyclical dynamics of the world economy is largely determined by the results of management in the innovation process and the effectiveness of innovation activities.

The innovation development of the Russian economy is not possible without the appropriate global changes of innovation at the regional level, without the support of regional mechanisms and processes. The development of the innovation component on the regional level is a priority task for the future development of the economy. The experience of the leading countries in the world shows that a strong economic growth, the increase of GDP are associated with the active development of innovation and the implantation of the scientific and technical development in the economic practice.

The innovation component is an important factor of the economic growth. In the Russian conditions the formation of an innovation economy is due to the influence of objective factors which based on the creation of the national innovation system.

It is very important to develop the innovation infrastructure, the institutional environment of the Russian regions with the aim of involving Russia in the integration processes of the foreign countries of the Asia-Pacific region. The government has a main role in this process.

Innovation development of Russia is largely depended on the development of the innovation environment in the regions of the country. The formation of the innovation environment at the regional level, is the result of active development and interaction of scientific and industrial organizations, small business, other entities of the regional economy, with the support and in the implementation of regional and federal support programs aimed at the leading position in the market.

The comparison of innovation development of Russian regions showed the existence of disparities between the relatively high level of development of subsystem of innovation, which figures correspond to the average values of the macro- and meso-level, and the level of development of subsystems implemented in the scientific and technical development. The most important reason of the low level of innovation development of subsystem in the regions is the old technological process of enterprises of industrial complex in the regions. The indicators of innovation process in Russia have the average positions, but there is a strong level of human capital of the regions, and the potential of research and development of the innovation products in different industries.

Nowadays, Russia is the integral part of the Asia-Pacific region. It is actively promoting initiatives for the formation of a new architecture of security and economic cooperation in the Asia-Pacific region. The current position of Russia in the integration process of the Asia-Pacific region does not correspond to the potential of Russian regions. The intensification of the innovation process in Russia will actually help to change this situation. And the most important point of this process is the systematic national innovation policy of Russian regions.

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