

UDK 221.485.6(385)

R.U. Mugayeva, A.B. Uchkampirova

Eurasian National University named after L.N. Gumileva, Nur-Sultan, Kazakhstan.

E-mail: Aygulya82@mail.ru

DEVELOPMENT POLE AND GROWTH POINTS OF INNOVATIVE ECONOMY: KAZAKHSTAN AND FOREIGN EXPERIENCE

Abstract. The article discusses the innovative development of the poles, as well as monitoring a comprehensive assessment of the innovative activities of the regions. This study indicates that increased innovation activity provides economic growth. "Growth points", which should be understood as a company, "the effect of enthusiasm, form the "development zone" in the region or country.

From single-valued and high-time to the basics of unpolished theory, the theory of polar poles (PRT) is derived. By the middle of the great part, in regional economy the theory of the polar poles – this concept, the theoretic object of the duality of the divergence of the differentiation of the duality of the duality in the market of products. In keeping with this concept, the mid-region is characterized by the propagating (dynamically divisive, diverging) propulsion. It stimulates the dilatation of the dilapidated territory, in the opposite direction, in accordance with the instructions of the addictive, addictive and obsessive persons, presiding over the polar pole of the border, with a higher concentration in the subordinate area of the recital zone. Rather central mogwt how *razvıvatsya stıxıyno*, so, and *celenapravlenno way optımalnogo razmeşçeniya sootvetstvıvyuşçix Enterprise and blagoprıyatnıx create wslovıy* Their *xozyaystvennoy Activities pomoşçyu razlıçnıx istoçnikov finansırovaniya* (of State *vlojenıy*, *çastnogo capital*, *subsidies*, *nalogovıx tax* and others.). Once you have developed in the region, you will have a far more complex development of the whole process, as you would expect, under the mechanisms of market economy.

Key words: innovative and technological pole of growth, industrial poles of growth, agroindustrial poles of growth, perspective poles of growth, concept of poles of growth, integration, processes of innovative activity.

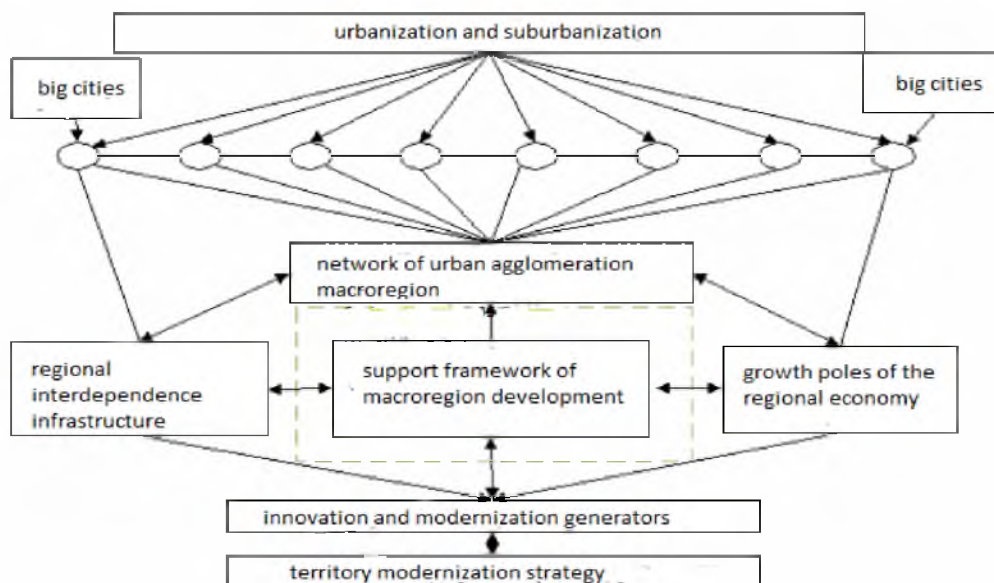
Introduction. In scientific works, it was emphasized that the use of poles as a category that forms the functions of the state in ensuring the development of regions with the conditions for their achievement. In the early 1950s. The world-famous economist Francois Perroux, by the poles, understood the placed and dynamically developing industries that generate a chain reaction of the emergence and growth of industrial centers. This theory was the basis for regional programs in many countries. The Swedish economist, Nobel Prize winner in economics G. Myrdal confirmed that the basic model of cumulative growth shows how, with the help of specialization and economies of scale, the small advantages of territories can grow and be multiplied over time [1]. The extension of this effect to regions or the so-called "diverging effects" allowed us to conclude that the advantages of certain localities, growth poles lead to an acceleration of their development and a large lag in backward regions. Consequently, the growth of the economy is uneven and the levels of economic development of the territories do not converge [2].

Also interesting is the French experience in the formation of the so-called poles of competitiveness – consortia (clusters) that combine research organizations, educational centers and industrial enterprises. At the same time, the goal is to form enterprises that are attractive for implanting a private initiative in research and development. Competitiveness in terms of the international division of labor, and at the same time provide an effective solution to regional and social problems. It should be noted that in France, research and production complexes that combine high-tech enterprises and research institutes working in various industries are considered poles of competitiveness [3].

Table 1 - Types and functions of growth poles

Innovative technological growth pole	Industrial growth poles	Agroindustrial growth poles	Promising growth poles
Agglomeration forming a single territorial socio-economic system with a population in which organizational and managerial "capital" functions are concentrated and a significant innovative and technological reserve in the economy is formed	Urbanization of a territory with an industrial type of economy characterized by high investment activity and the presence of a diversified diversified industry	Medium and small cities with a developed production base and service sector and an active business environment in the field of agriculture	The largest settlements, which are the organizing centers of rural areas, with the potential for the formation of agro-industrial growth poles
Compiled by the second: based on the source [4].			

The concept of growth poles is a network of growth poles as an effective tool for raising the region, which provides alignment and support for the development of the region. The development of the world community testified to the increasing influence of innovation on the rate of economic growth. In the global market, innovative activity of the widespread use of innovations indicates that enhanced innovation activity has been identified in high-tech industries at the regional level.

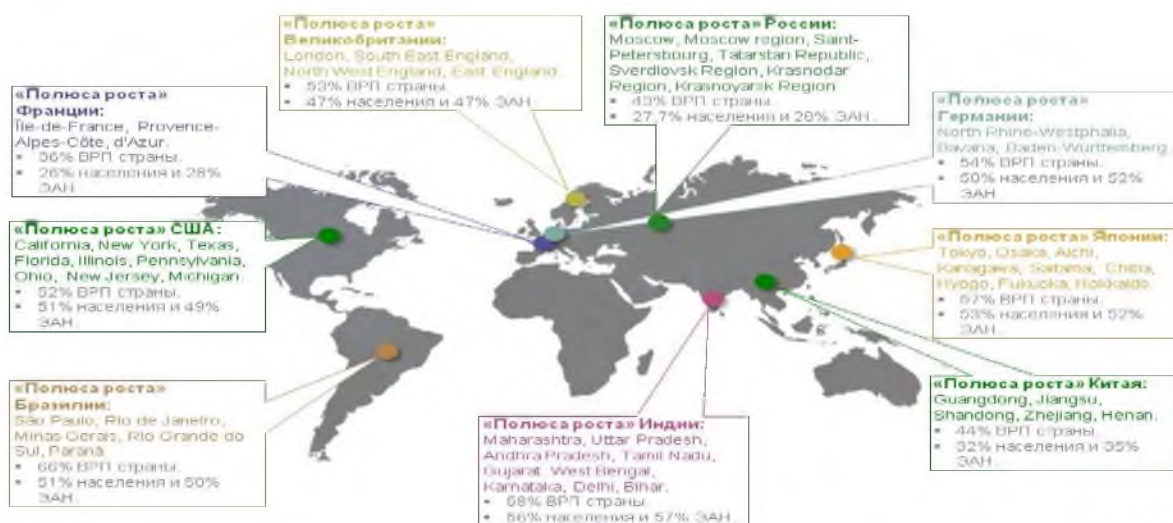


The scheme of territorial development and deployment of productive forces Kazakhstan is at the stage of transition to an industrial-innovative form of development. The progress of the ongoing reform in the country shows that interregional differentiation and transport problems continue to adversely affect the growth rate of GRP, the volume of FDI, the export potential of SMEs and private entrepreneurship, and the integrated use of the economic potential of the regions [5].

The identification of "growth poles" is a key model for the development of countries that are distinguished by advanced levels of economic and social development.

Foreign experience shows that the innovation policy of the region, especially in that part related to the material production industry, and in particular the production of building materials, should be formed taking into account the general resource capabilities of the region. At the same time, in the development of innovation policy, a special place is occupied by the general analysis of the resource potential of the region as a starting point for assessing the material prerequisites for the innovative development of enterprises in the region. An assessment of the region's resource potential is a quantitative characteristic that takes into account the main macroeconomic indicators, the saturation of the territory with production factors (natural resources, energy resources, production and transport infrastructure, labor force, etc.),

innovative infrastructure and its development level, consumer demand for products inside and outside the region, etc [6-7].



Источник: Статистические ресурсы США, КНР, Индии, Японии, Германии, Великобритании, Бразилии, Франции. Аналитика AV Group



Source: Static Resource USA, CHR, India, Germany, UK, Brazil, Analytics AV Group.

An important component of the resource potential of the regions is its scientific and technical potential. The existing and existing system of state and non-state scientific institutions is, in essence, the basis of the innovation infrastructure, designed to provide modern scientific and technical developments and technologies to the innovation process in the region and the republic. The activities of scientific institutions are focused on four main areas:

- fundamental, applied, research and development work (R&D) in the field of priority areas for the development of science and technology and republican and sectoral level;
- participation in the development and implementation of republican and sectoral scientific and technical programs;
- training and retraining of highly qualified scientific and engineering personnel in the field related to the research topic of a particular scientific institution.

Depending on the criterion by which the classification is carried out, there are several groups of typification of innovation. The classification of innovations by the criterion of their importance in the development of the productive forces of society provides for:

- basic innovations are those innovations that realize the largest inventions and become the basis of revolutionary upheavals in technology, the creation of new industries;
- radical (or fundamental new) innovations, as a result of which there is a change of generations of technology or the emergence of new technology within the industry while maintaining the original fundamental scientific principle;
- medium (or combinatorial) innovations that realize the average level of invention and know-how, allowing to create a basis for the development of new models of this generation of technology, significantly improve the basic technical and economic characteristics of products, improve the existing technology;
- false innovations (or pseudo-innovations) aimed at mastering new models of technology or improving production methods when this generation of equipment or technology is already obsolete. In general, false innovations always lead to technical regression and cannot be confused with actual innovations.

The mechanism organizing the innovative development of enterprises is targeted innovation programs. In their opinion, the innovative target program is a set of measures (actions) aimed at achieving the goals of innovative development. An enterprise may have several innovative programs, each of which

is oriented toward achieving a specific goal, or one comprehensive targeted innovation program consisting of several subprograms may be developed [8-10].

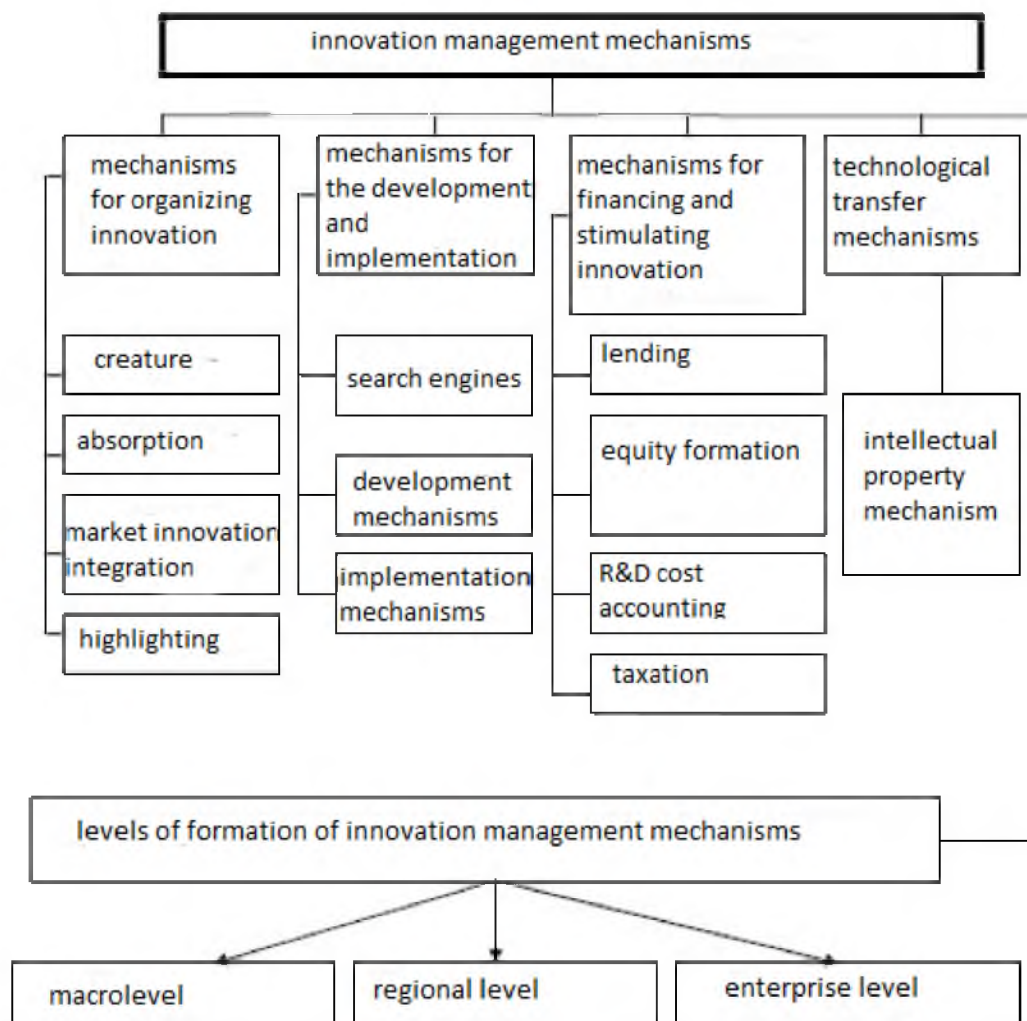


Figure 1 - The system of innovation management mechanisms

The mechanism of state financing and stimulation of innovative (scientific and technical) activities involves:

- the formation of a system of republican and regional programs in priority areas of scientific and technological progress with the legislative establishment of the procedure for their selection and financing;
- selection of projects in priority areas of scientific and technological progress, the list and mechanism of state financing of which are established by law;
- shared participation of the republican and local budgets, extra-budgetary funds and commercial structures (innovative funds, commercial banks, insurance and pension funds, mutual and investment funds, etc.) in investments in scientific and technical programs and projects with the aim of sharing financial risk;
- creating a consortium of investors for each program (priority innovative project), including expert, legal and marketing services, innovative commercial banks, insurance companies, information centers, a network of intermediary and consulting firms, technology parks and technology cities, business incubators, small innovative enterprises, venture capital and leasing firms, scientific and technical centers;
- Creation of a system of competitions, tenders, grants to attract foreign investment;

- development of consulting services for the preparation of justifications and business plans for important innovative projects and technologies;
- the creation of republican and regional innovative companies with the participation in the formation of their authorized capital of the state and developers capable of acting as general contractors for innovation and investment projects [11-13].

Foreign experience indicates that a developed entrepreneurial sector is an important factor determining the effectiveness of a national innovation system. However, in Kazakhstan, the entrepreneurial sector is characterized by a low level of innovation activity, which, in turn, leads to a low share of innovative products in Kazakhstan's GDP



After the crisis of 2010, characterized by a fall in business and investment activity of business entities, there has been a steady upward trend in the share of innovative products in GDP. However, it is insignificant - less than 1%.

The development of an innovative economy in the Republic of Kazakhstan is largely determined by its financial support and in the initial stage needs substantial state support. The need to develop new technologies and innovations, increasing the demand for innovative products are a requirement of the present.

Today, Kazakhstan has created a number of institutions that coordinate and support innovation. These institutions are involved in financing and managing innovation through various financial instruments.

In addition, a number of state concepts for regulating and stimulating innovation were adopted in the republic, the creation of a national innovation system was announced, a number of mechanisms for state financing of innovations were created, including the creation of an innovation infrastructure.

Meanwhile, the development of the innovation system, despite the efforts of the state, is constrained by a number of factors. So, in the field of development of innovative activity in the region the following problems were identified that affect the change in its structure:

- insufficient supply of manufacturing industries with components of domestic production;
- general technical and technological backwardness of enterprises;
- low innovation activity of enterprises;
- low investment attractiveness of non-primary manufacturing industries;

- shortage of cash resources, affecting the innovative activity of production in the real sector of the economy;
- the limited connection between science and production and the lack of effective mechanisms for bringing scientific and technological products to the level of goods;
- lack of a flexible system of training and retraining of specialists and workers;
- underdevelopment of the sphere of small innovative enterprises that have the necessary flexibility for rapidly changing market conditions;
- underdevelopment of innovation infrastructure.

A significant problem restraining innovative development in the region is the growing depreciation of fixed assets in economic sectors, especially in industries outside the mining and metallurgical complex.

For the successful implementation of innovative activities in the region, the innovative sphere is necessary as a set of organizations and enterprises that provide and carry out innovative activities and meet the requirements and characteristics of innovative development.

Given the current state of innovation in the regions of the Republic of Kazakhstan, four main areas of its improvement can be distinguished:

- Creation of the organizational structure of a regional innovation system.
- Integration of economic entities in the region in the process of innovation.
- Effective use of scientific potential and high-tech “reserve” available in Pavlodar region.
- Building and efficient use of existing production potential.

In order to achieve the goals and objectives of the innovative development of the region’s economic entities declared by the innovation policy, a diversified flexible system of tools is needed to enable the required transformation of all elements of the innovation sphere. The implementation of the process of innovative development of the region is associated with the development of a mechanism capable of restructuring all spheres of public relations in order to promote the development of an innovative economy [14].

Thus, the solution to the problem of improving the mechanism of innovative development of the region determines the need to develop methodological and analytical tools to take into account the peculiarities of territorial and economic interests, the specifics and level of development of the region, the ratio of technological structures of the economy, in order to increase the competitiveness of the regional economy as a whole.

To implement the further development of the innovation sphere, taking into account the information received on the starting conditions of the state and structure of the innovative potential of the region, it is necessary to use a number of tools to regulate the transfer process of the results of scientific and technical activities. Through the technology transfer process underlying innovation, knowledge and technology are transformed into specific new products and services, which contributes to economic growth and social needs.

The key elements of the regional mechanism for financing innovative activities are forecasting the innovative development of the region, a multi-channel financing system based on the rational distribution of financial resources from various sources of financing between all stages of the innovation process, and a system for adjusting the financial mechanism taking into account the current situation in the regional innovation sphere [15].

Thus, the following set of tools should be included in the mechanism of innovative development of the region, which is the basis of the studied model:

- assessment of the innovative potential of the region;
- development of mechanisms for transferring the results of scientific and technical activities;
- development of a mechanism for financing innovative activities.

The result of the functioning of this mechanism should be a comprehensive, targeted modernization of the regional innovation sphere, expressed in improving its institutional environment, infrastructure, financing system, in strengthening the socio-cultural foundation and the formation of effective management levers.

Р.У. Мугауина, А.Б. Учкампилова

Л.Н. Гумилев атындағы Еуразия ұлттық университеті, Нұр-Сұлтан, Қазақстан

ИННОВАЦИЯЛЫҚ ЭКОНОМИКАНЫҢ ДАМУ ЖӘНЕ ӨСУ ПОЛЮСТЕРІ: ҚАЗАҚСТАН ЖӘНЕ ШЕТЕЛДІК ТӘЖІРИБЕ

Аннотация. Мақалада полюстердің инновациялық дамуы талқыланады, сонымен қатар аймақтардың инновациялық қызметіне жан-жақты баға беріледі. Бұл зерттеу инновациялық белсенділіктің артуы экономикалық өсуді қамтамасыз ететінін көрсетеді. «Өсім нүктелері», оны компания деп те түсіну керек, «әуестік эффектісі» аймақтағы немесе елдегі «даму аймақтарын» құрайды.

Қазіргі уақытта аймақты экономикалық жүйе ретінде басқарудың көптеген теориялары мен тұжырымдамалары бар. Олардың негізінде үдерістік, жүйелік, ситуациялық, бағдарламалық-мақсатты, жобалық-жоспарлы, инновациялық көзқарастар жатыр. Олардың барлығы экономикалық проблемаларды шешуге бағытталған және елдің және оның өңірлерінің әлеуметтік-экономикалық дамуының ұзақ мерзімді болжамдарын әзірлеумен байланысты: дәл осы аумақта өндірістің неғұрлым қолайлы жағдайларын іздеу, ресурстардың барлық түрлерін біріктіру мүмкіндігі, экономикалық өсуді қарқындету мақсатында олардың сапалы кооперациясы.

Кең таралған және сол уақытта зерттелмеген теориялардың бірі – өсу полюстерінің теориясы. Ғалымдардың пікірінше, өңірлік экономикада өсу полюстерінің теориясы – бұл нарықтық кеңістікте шаруашылық қызметтің әртүрлі салаларын орналастырудың біркелкі еместігін теориялық тұрғыдан түсіндіретін тұжырымдама. Осы тұжырымдамаға сәйкес, аймақ салалары арасында пропульсивті (серпінді дамып келе жатқан, жетекші) салалар бөлінеді. Олар, ең алдымен, қосалқы, қосымша және қызмет көрсететін өндірістер есебінен, өсу полюстерін көрсете отырып, іргелес аумақтардың дамуын ынталандырады, ал олардың белгілі бір аудандарда шоғырлануы даму орталықтарын құруға алып келеді. Мұндай орталықтар тиісті кәсіпорындарды оңтайлы орналастыру және әртүрлі қаржыландыру көздерінің (мемлекеттік салымдар, жеке капитал, субсидиялар, салық жеңілдіктері және т.б.) көмегімен олардың шаруашылық қызметі үшін қолайлы жағдайлар жасау жолымен стихиялы түрде де, мақсатты түрде де дами алады. Өңірде пропульсивті сала дамығаннан кейін, оның одан ары кешенді түрде дамуы, әдетте, нарықтық экономика тетіктерінің әсерімен жүреді.

Түйін сөздер: инновациялық және технологиялық өсу полюсі, индустриялық өсу полюстері, агроөнеркәсіптік өсу полюстері, перспективалы өсу полюстері, өсу полюстері туралы түсінік, интеграция, инновация процестері.

Р.У. Мугауина, А.Б. Учкампилова

Евразийский национальный университет им. Л.Н. Гумилёва, Нур-Султан, Казахстан

ПОЛЮС РАЗВИТИЯ И ТОЧКИ РОСТА ИННОВАЦИОННОЙ ЭКОНОМИКИ: КАЗАХСТАН И ИНОСТРАННЫЙ ОПЫТ

Аннотация. В статье рассматривается инновационное развитие полюсов, а также ведётся мониторинг комплексной оценки инновационной деятельности регионов. Данное исследование свидетельствует о том, что усиление инновационной активности дает экономический рост. «Точки роста», под которыми следует понимать и фирму, «эффектом увлечения», образуют "зоны развития" в регионе или стране.

В настоящее время существует множество теорий и концепций управления регионом как экономической системой. В их основе лежат такие фундаментальные подходы, как процессный, системный, ситуационный, программно-целевой, проектно-плановый, инновационный. Все они направлены на решение экономических проблем и связаны с разработкой долгосрочных прогнозов социально-экономического развития страны и ее регионов, поиск наиболее благоприятных условий производства именно на данной территории, возможности объединения всех видов ресурсов, качественной их кооперации с целью интенсификации экономического роста.

Одной из распространенных и в то же время до конца неизученных теорий является теория полюсов роста (ПРТ). По мнению большинства ученых, в региональной экономике теория полюсов роста – это концепция, теоретически объясняющая неравномерность размещения различных отраслей хозяйственной деятельности в рыночном пространстве. Согласно этой концепции, среди отраслей региона обязательно выделяются пропульсивные (динамично развивающиеся, ведущие) отрасли. Они стимулируют развитие прилегающих территорий, прежде всего, за счёт вспомогательных, дополнительных и обслуживающих производств, представляя собой полюсы роста, а их концентрация в определенных районах ведет к

образованию центров развития. Такие центры могут развиваться как стихийно, так и целенаправленно, путём оптимального размещения соответствующих предприятий и создания благоприятных условий для их хозяйственной деятельности с помощью различных источников финансирования (государственных вложений, частного капитала, субсидий, налоговых льгот и др.). После развития в регионе пропульсивной отрасли дальнейшее его комплексное развитие происходит, как правило, под действием механизмов рыночной экономики

Ключевые слова: инновационно-технологический полюс роста, индустриальные полюсы роста, агроиндустриальные полюсы роста, перспективные полюсы роста, концепция полюсов роста, интеграция, процессы инновационной деятельности.

Information about authors:

Mugayeva Raikhan Uljagalievna, Doctoral student of the 3 course of the educational program "State Audit", raihan-1974@mail.ru;

Uchkampirova Aigul Bahadirovna, Doctor PhD, Department of Economics and Entrepreneurship, Aygulya82@mail.ru, <https://orcid.org/0000-0002-7887-1696>

REFERENCES

- [1] Elkanov R.Kh. Poles of development and growth points of the innovative economy: Russian and foreign experience, Economics and National Economy Management, Series Economics and Law No. 2-February 2012.
- [2] Movchan I., Smurov I., Bertrand F. French centers of competitiveness as an effective technology transfer mechanism // Abstracts at the Second Congress of compatriots-graduates of Russian universities working in the Russian Federation and abroad [Electronic resource] // Dialogue with Russian-speaking scientists working abroad. Electron. M., 2011. URL: <http://dialog.extech.ru/kongress2>.
- [3] Elkanov R.Kh. Poles of development and growth points of the innovative economy: Russian and foreign experience // Modern Science: Actual Problems of Theory and Practice. 2012. No. 2.
- [4] Longhi S. Rochhia Cluster policy for innovation and competitiveness. Lessons from the French experience [Electronic resource] 11 Revel nice. Electronic data. [S. 1.], 2011. URL: <http://revel.unice.fr/eriep/index.html?id=3495>.
- [5] Kudinov A. Poles of growth. // Information and political portal. <http://www.doc22.ru/information/analysis/462-2009-06-02-02-19-20>.
- [6] Vysotsky V.N. Methodological problems of empirical analysis of polarized development in TPK / V.N. Vysotsky, A.Ya. Jacobson // Methodological problems of the formation of territorial-production complexes. Novosibirsk: IE and OPP, 1980. S. 48-65.
- [7] Vysotsky V.N. About foreign concepts of polarized development / V.N. Vysotsky, A.Ya. Jacobson // Izv. SB USSR Academy of Sciences. Ser. total sciences. 1976. No. 6. Vol. 2.S. 100-106.
- [8] Glazyev S.J. Theory of long-term technical and economic development / S.J. Glazyev. M.: VlaDar. 1993.
- [9] Ergashev B., Khashimov A., Davydova Z. Poles of growth: what should they be? // Economic Review. Internet source <http://www.review.uz/ru/article/175>.
- [10] Kamyshev Yu.A. About potential sources of innovative development of depressed regions of Russia. // Economics and management, 2005. No. 1. P. 52.
- [11] Rubvalter D.A. Poles of competitiveness. Management of a science and innovation complex in French. // Internet source. http://www.ng.ru/science/2009-12-02/11_france.html.
- [12] Annual Report of the Directorate General for Competition, Industry and Services (DGCIS – Direction Generale de la Competitivite, de l'Industrie et des Services) of the French Ministry of Economy, Finance and Industry, No. 10, January 2011.
- [13] Gorokhova M.B. Kazakhstan: issues of effective implementation of a new regional policy model. Center for Analysis of Public Problems (PPRC).
- [14] Report on the state of innovation processes in the Republic of Kazakhstan, including in the regional context // Official site of the National Innovation Fund JSC. Access mode: <http://nif.kz>.
- [15] Mutanov G.M. Innovation: creation and development. Almaty. Publishing House of KazNU Al-farabi., 2011.