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DEVELOPMENT OF THE INNOVATIVE POTENTIAL OF THE INDUSTRY OF THE REPUBLIC OF KAZAKHSTAN

Abstract. Sustainability of the development of innovative potential in the context of globalization is one of the factors for ensuring the country's competitiveness, economic, technological, environmental security and sustainable development. An innovative model of the economy will ensure the sustainable development of the country today and in the future. In this regard, the state should pay special attention to the development of domestic innovative entrepreneurship. Today, the development of innovative potential is the most important task for the Republic of Kazakhstan.

The author studied the number of operating small and medium-sized businesses in the Republic of Kazakhstan and the level of innovative activity of enterprises. This indicates certain results of innovative progress, but at the same time indicates a low level of innovative activity of domestic entrepreneurship. It should be noted that despite the growth of innovative enterprises, the entrepreneurial activity of domestic enterprises in the field of innovation remains low.

Kazakhstan already depends on introduced and used foreign developments and technologies, which makes it difficult to manage and modernize its production base. Therefore, raising the level of domestic innovative entrepreneurship requires solving many issues related to improving its activities, developing an innovative environment, training, stimulating, financing qualified specialists in demand,

regulating innovations and further forming a legal framework for an innovative economy model. In this regard, the article proposes measures that need to be taken to enhance the development of the innovative potential of industry in Kazakhstan.

Key words: innovative potential, innovative activity, innovations, innovative development, innovative potential.

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ҚАЗАҚСТАН РЕСПУБЛИКАСЫ ӨНЕРКӘСІБІНІҢ ИННОВАЦИЯЛЫҚ ӘЛЕУЕТІН ДАМЫТУ

Аннотация. Тұрақтылық Жаһандану жағдайында инновациялық әлеуетті дамыту елдің бәсекеге қабілеттілігін, экономикалық, технологиялық, экологиялық қауіпсіздігін және тұрақты дамуын қамтамасыз ету факторларының бірі болып табылады. Экономиканың инновациялық моделі елдің бүгінгі және келешекте тұрақты дамуын қамтамасыз етеді. Осы орайда мемлекет отандық инновациялық кәсіпкерлікті дамытуға ерекше көңіл бөлуі керек. Бүгінгі таңда инновациялық әлеуетті дамыту Қазақстан Республикасы үшін ең маңызды міндет болып табылады.

Автор Қазақстан Республикасында жұмыс істеп тұрған шағын және орта бизнес субъектілерінің санын және кәсіпорындардың инновациялық белсенділік деңгейін зерттеген. Бұл инновациялық прогрестің белгілі бір нәтижелерін көрсетеді, бірақ сонымен бірге Отандық кәсіпкерліктің инновациялық белсенділігінің төмен деңгейін көрсетеді. Ескеретін бір жай, инновациялық кәсіпорындардың өсуіне қарамастан, Отандық кәсіпорындардың инновациялық саласындағы кәсіпкерлік белсенділігі төмен деңгейде қалып отыр.

Қазақстан қазірдің өзінде енгізілген және пайдаланылатын шетелдік әзірлемелер мен технологияларға тәуелді, бұл оның өндірістік базасын басқару мен жаңғыртуды қиындатады. Сондықтан отандық инновациялық кәсіпкерліктің деңгейін көтеру оның қызметін жетілдіруге, инновациялық ортаны дамытуға, сұранысқа ие білікті мамандарды даярлауға, ынталандыруға, қаржыландыруға, инновацияларды реттеуге және инновациялық экономика моделінің құқықтық

негіздерін одан әрі қалыптастыруға байланысты көптеген мәселелерді шешуді талап етеді. Осыған байланысты мақалада Қазақстан өнеркәсібінің инновациялық әлеуетін дамытуды арттыру үшін қабылдануы қажет шаралар ұсынылған.

Түйін сөздер: инновациялық әлеует, инновациялық қызмет, инновациялар, инновациялық даму, инновациялық әлеует.

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РАЗВИТИЕ ИННОВАЦИОННОГО ПОТЕНЦИАЛА ПРОМЫШЛЕННОСТИ РЕСПУБЛИКИ КАЗАХСТАН

Аннотация. Устойчивость развитие инновационного потенциала в условиях глобализации является одним из факторов обеспечения конкурентоспособности страны, экономической, технологической, экологической безопасности и устойчивого развития. Инновационная модель экономики обеспечит устойчивое развитие страны сегодня и в будущем. В этой связи государство должно уделять особое внимание развитию отечественного инновационного предпринимательства. Сегодня развитие инновационного потенциала – важнейшая задача для Республики Казахстан. Автором изучено большое количество действующих субъектов малого и среднего предпринимательства в РК и уровень инновационной активности предприятий. Это свидетельствует об определенных результатах инновационного прогресса, но в то же время свидетельствует о низком уровне инновационной активности отечественного предпринимательства. Следует отметить, что несмотря на рост инновационных предприятий предпринимательская активность отечественных предприятий в сфере инноваций остается низкой. Казахстан уже зависит от внедренных и используемых зарубежных разработок и технологий, что затрудняет процесс управления и модернизации его производственной базы. Поэтому повышение уровня отечественного инновационного предпринимательства требует решения многих вопросов, связанных с совершенствованием его деятельности, развитием инновационной среды, обучением, стимулированием, финансированием востребованных квалифицированных специалистов, регу-

лированием инноваций и дальнейшим формированием правовой базы для модели инновационной экономики. В связи с этим в статье предложены меры, которые необходимо предпринять для активизации развитие инновационного потенциала промышленности в Казахстане.

Ключевые слова: *инновационный потенциал*, *инновационная деятельность*, *инновации*, *инновационное развитие*, инновационной потенциал.

Introduction. One of the conditions for ensuring real economic independence and successful functioning in market conditions of the main link of the economic system is economic development. The development of modern society is inextricably linked with the potential of the innovation complex in the national economy. A necessary condition for the transition to a new stage of competition - the stage of innovation is the ability of the national economy to innovative changes. This means that factors that directly ensure the formation and implementation of this ability, such as advanced equipment and technology, a developed research base, and the expansion of scientific and technical cooperation between countries, acquire decisive importance in ensuring further sustainable economic development. The role of the country's intellectual potential is growing sharply (Alibekova et al., 2018).

In modern society, fundamental shifts are taking place in the system of science and education, in the possibilities of new equipment and technology, in ensuring the safety and quality of innovations and their application, potentially capable of creating the material and spiritual well-being of society and ensuring technical, social, psychological, economic development and mass needs.

In the era of a knowledge-intensive economy, the most important factors determining the competitiveness of industry are science and technology, possession of a production and marketing management strategy, knowledge of the laws of evolution of society and humanity as a whole. The key factors in the development of production are knowledge, intellectual property and human intellectual capabilities. The development of innovative systems and the ability to create knowledge and apply it in practice become the main conditions for the development of the country, regions and society as a whole, determining the competitiveness of the entire economy and individual companies (Espaev et al., http://kazpravda.softdeco.net/c/1335487563 (accessed 04/27/2019).).

Today, each state is interested in diversifying and replacing the country's raw materials potential with innovative potential and giving it the character of the main export component offered to world markets. The economic strategy of Kazakhstan today is based on the fact that only the activation and effective use of its innovative potential can ensure the sustainable development of the country, including radically changing the factors of its attractiveness for foreign investors. This means a turn from attracting foreign investors with rich natural resources and relatively cheap labor to betting on the commercial implementation of innovative projects through the effective use of innovative potential.

In a broad sense, the concept of "potential" includes the means, stocks, sources that

are available and can be used, put into action to achieve a specific goal, implement a plan, solve a problem, the possibility of any social system (individual, society, state) in a certain area (Karenov et al., 2017).

Research Material and methods. The essence of any object is sufficiently fully disclosed by identifying its constituent elements. In this regard, we should dwell separately on the main components of the category under study. The composition of the innovative potential can be represented by the unity of its five components, which coexist mutually, presuppose and determine each other (Koshanov et al., 2018).

The constituent elements of innovation potential are shown in the figure 1.

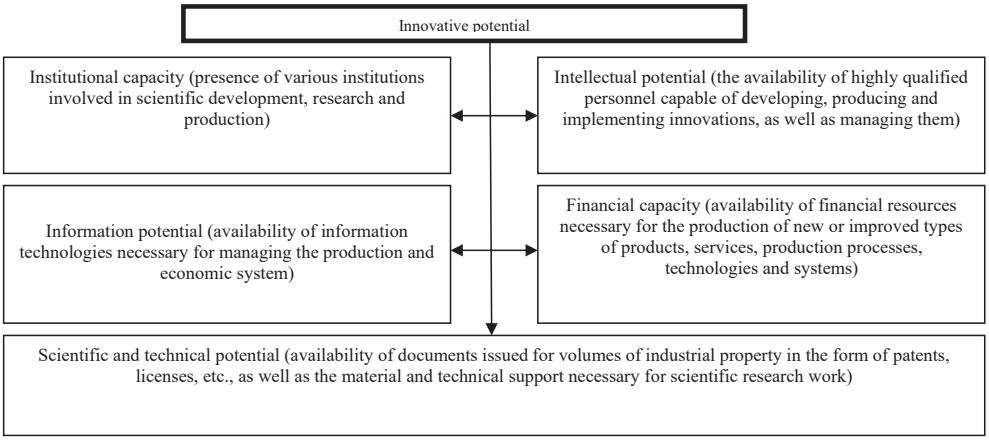

Figure 1 - The structure of innovative potential

When assessing the innovative potential of the industry of the Republic of Kazakhstan, the task is to give a quantitative and qualitative description of each type of component of the innovative potential and identify both positive and negative trends in their development. Using the statistical data of the Ministry of National Economy of the Republic of Kazakhstan of the Committee on Statistics, we will analyze the current state of science and innovative development of Kazakhstan. The main indicators of the state and development of science are shown in Table 1.

Table 1 - Main indicators of the state and development of science

	2018	2019	2020	2021
Gross domestic product, billion tenge	27 300,6	30 347,0	35 275,2	38 033,1
Domestic expenditures on research and development in current prices, mln. tenge	43 351,6	51 253,1	61 672,7	66 347,6
as a percentage of gross domestic product	0,16	0,17	0,17	0,17
Number of organizations performing research and development	412	345	341	392
Number of personnel engaged in research and development (at the end of the year), people	18 003	20 404	23 712	25 793
including:				
researchers	11 488	13 494	17 195	18 930

of them:				
Doctor of Sciences	-	1 065	1 688	2006
doctors by profile	1 486	719	605	596
Doctor of Philosophy PhD	95	131	218	330
candidates of sciences	3 286	3 629	4 915	5254

In modern conditions, the main goal of the industrial policy of Kazakhstan is to create the maximum balanced industrial (industrial-innovative) complex that can meet the needs of the domestic market with competitive products, constantly increase export potential through highly processed products (Mutanov et al., 2019).

To achieve this goal, it is very important to ensure the rational use of mineral and energy resources, to promote the organization of high technological structures in all industries, to promote technological cooperation and the development of high-tech industries. Informatization of industry, the growth of innovative potential, the growing importance of intellectual production in the structure of industry - all this will qualitatively change its modern appearance. As can be seen from Table 1, the institutional capacity in 2021 included 392 organizations performing research and development, which is 20 units less than in 2018. The positive factor is that there is an increase in the number of personnel involved in research and development. Their total number increased by 7,790 people compared to 2018. One of the most objective structural indicators characterizing the quality of intellectual potential is the indicator of the number of highly qualified personnel (http://www.akorda.kz/ru/page/page).

Thus, in the structure of research specialists, the share of those with a doctoral degree increased from 1065 in 2019 to 2006 people in 2021. In general, there remains a trend towards an increase in the number of candidates of sciences with a slight growth dynamics of research specialists with a doctoral degree, which is clearly shown in Figure 2.

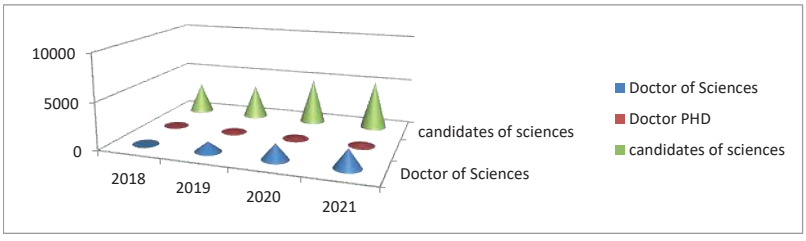

Figure 2 - The structure of highly qualified personnel

In general, according to the analysis of the intellectual resource, it can be concluded that there is a shortage of workers engaged in research and development in the industry, and the system for training highly qualified specialists and raising personnel requires serious changes. Increasing the prestige of scientific work and its payment are the main problems in the development of intellectual potential, the most relevant at the present stage of development.

Another, no less important indicator that reflects the level and dynamics of the innovative potential of the industry is the financial potential required for the production of new or improved types of products, etc. The main sources of financial resources include investments, internal expenditures on research and development, and expenditures on technological innovation. Let us analyze the level of use of these funding sources (Mukanov et al., 2006:178.).

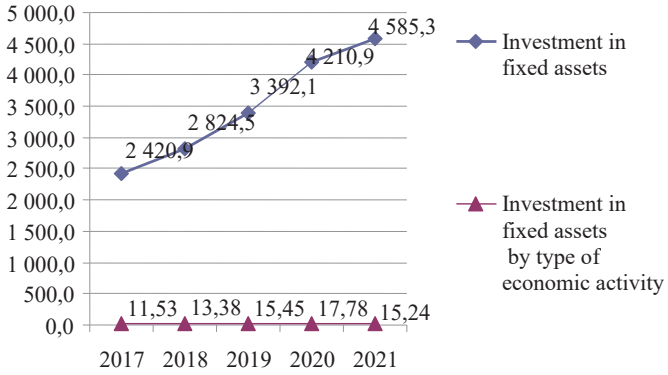

Figure 3 - Dynamics of investment growth by type of economic activity "Research and development", billion tenge

As can be seen from Figure 3, for 2017-2021. there is a growth trend for all types of investments, but investments in fixed assets by type of economic activity "Research and Development" practically remained at zero, so in 2021 their share in the total volume of investments in fixed assets amounted to only 0.33%.

Domestic expenditures on research and development by branches of science are shown in Table 2.

Table 2 - Internal costs for research and development by branches of science

	2018	2019	2020	2021
Internal costs, total	44 513,3	50 928,4	61 672,7	66 347,6
including:				
natural	14 277,6	14 993,4	22 361,4	23 556,8
engineering developments and technologies	21 192,7	24 048,1	23 937,9	26 864,3
medical	2 266,2	1 349,7	3 450,5	2 795,1
agricultural	3 592,3	5 018,4	5 628,2	7 331,7
social	1 343,3	2 967,7	2 857,1	1 486,2
Humanities	1 841,1	2 551,2	3 437,6	4 313,6

In accordance with Table 2, internal costs for research and development in Kazakhstan as a whole increased by 25,933.1 million tenge in 2021 compared to 2018.

Let's consider the main indicators characterizing the level of expenses for technological innovations in Kazakhstan for 2018-2021, using the data given in Table 3.

The negative factor is that in 2021 the total technological costs decreased by 9% compared to 2018 and almost 2 times compared to 2020.

Table 3 - Costs for technological innovations, million tenge

Показатель	2018	2019	2020	2021
Общие затраты	79985,9	83523,4	113460,1	61050,9
в том числе:				
Республиканский бюджет	6478,4	4359,7	5613,2	4968,3
Местный бюджет	2321,2	184,5	36,9	378,4
Собственные средства предприятий	68407,3	70576,3	96860	54059,9
Иностранные инвестиции	2762,7	8379,7	9413,6	961,5
Институты развития	16,3	23,2	1536,3	682,8
Общие затраты в % к ВВП	0,8	0,6	0,7	0,4

When assessing the innovative potential of industry, it is necessary to take into account such an indicator as the level of use of information and communication technologies in enterprises, since it is one of the main factors of the knowledge-based economy (- 2017. No. 3).

As can be seen from Table 4, in 2021, enterprises with computers, access to the Internet and a local area network have the largest share. The share of enterprises receiving and placing orders via the Internet is 13% and 15%, respectively.

This indicates that there is still a low level of dissemination of information through websites and an insufficient level of use of Internet services, that is, most enterprises use information technology for internal use.

Table 4 - Use of information and communication technologies

Index	2017	2018	2019	2020	2021
Share of enterprises with computers	73,9	75,4	79,4	76,6	69,8
Share of enterprises with access to the Internet	51,2	55,9	61,7	55,5	54,2
Percentage of businesses with a website	10,3	11,1	13,6	7,4	7,6
Share of enterprises with Intranet	-	6,7	9,2	5,4	16,5
Percentage of businesses receiving orders via the Internet	14,4	14,8	17,3	14,1	13,0
Percentage of businesses placing orders online	13,9	15,2	18,5	14,9	15,0
The share of enterprises with a local computer network	-	34,7	41,9	23,6	27,8
Percentage of businesses with Extranet	-	2,3	2,5	0,9	1,7

The distribution of the volume of innovative products by type of economic activity, shown in Figure 4, indicates that the largest volume of innovative products falls on the manufacturing industry, which in 2021 amounted to 76202.2 million tenge or 94.5%. In the mining industry, the volume of innovative products in 2021 amounted to 3,357.1 million tenge, or 5.5%.

The main results obtained in the course of the analysis and assessment of the innovative potential of the industry of Kazakhstan indicate that today in the domestic industry:

- the share of design and engineering organizations and industrial enterprises engaged in research activities is extremely small (5.6%);

- in industry in recent years there has been no increase in the number of highly qualified specialists involved in research and development;

- low level of use of information and communication technologies in enterprises (13-15%), although there is an increase in the number of enterprises using information and communication technologies and an increase in their costs in the industry as a whole.

The regional aspect of the state innovation policy is one of the foundations for the formation of industrial policy in general and should provide for the future creation of locally not just innovative industries, but scientific and industrial complexes focused on the production of high-tech products. This will require the state to develop institutional mechanisms for regulating innovation activity in the regions, including effective criteria for selecting objects for priority support and mechanisms for this support (Sakenov et al., 2016: 10-13.).

One of the most effective methods of such influence is to be regional industrial innovation programs that will not only allow local authorities to track innovation activity at the level of individual industrial enterprises and firms, but also ensure its effectiveness by identifying specific areas of support and providing management procedures. Regional industrial and innovative programs should be formed on the basis of socio-economic programs for the development of regions and determine the main priorities for the development of innovative infrastructure and innovative potential, including training and promotion of personnel.

Result and discussion. This approach makes it possible to create conditions in the regions for the development of innovative activity based on the mutual obligations of its participants in combination with their economic interests (Turezhanova et al., 2018:8.).

Let us analyze generalizing materials characterizing the results of work in the field of technical re-equipment, modernization and diversification of production, as well as the development and implementation of innovative projects in the context of regions.

1. Akmola region (territory 146.6 thousand km2, population 836.2 thousand people). The mission of the region is to provide the country with agricultural products and export them. Prospects for the development of industry are associated with the development of deposits, the activities of the branches of engineering and the construction industry. Tourism and the leisure industry are developing. The chemical industry is represented by enterprises producing pharmaceutical products, molybdenum, sulfuric acid, and cartridgeed ammonite. An investment project for the processing of molybdenum raw materials was implemented, the first stage of the project “Pilot production of ammonite patronage” at Dostyk Granit LLP. The implementation of the projects of MMC Kazakhaltyn JSC for the construction of two heap leaching complexes at the Aksu and Bestobe mines and two direct cyanidation plants at the Aksu and Zholymbet mines made it possible to significantly increase the production of the metallurgical industry.

In the near future, the grain and tourism Akmola region will become the center

for the development of new technologies in the agro-industrial complex. A plant for the production of chemical plant protection products was built in Stepnogorsk - LLP "Astana - NAS Chemicals". The breakthrough project was completed in accordance with the requirements of world standards (Tulepbekova et al., 2020:2.).

In this region, 43 projects worth 647 billion tenge are being implemented within the framework of the AIID GP. All new production facilities put into operation produce finished products and confidently master production capacities.

2. Aktobe region (territory 300.6 thousand km2, population 682.5 thousand people). Mission - supply of mineral resources, development of processing, oil and gas, chemical industries, ferrous and non-ferrous metallurgy.

Measures to develop the manufacturing industry made it possible to ensure a qualitative increase in production volumes. In the chemical industry, the main share of products is manufactured by AZKhS JSC.

The construction industry of the region has received a fairly positive development. The production of ceramic plates, bricks, prefabricated building structures made of concrete, etc. has been increased.

More than 600 large and medium-sized industrial enterprises operate in the region today and

8.5 thousand small and medium businesses. In the last two years alone, 51 projects have been launched under the AIID program.

3. Almaty region (territory 223.9 thousand km2, population 1558.5 thousand people). The mission is to provide the market with food products, develop tourism, transit potential, agricultural production, food and light industry.

In 2018, 10 facilities were put into operation in the region, which were included in the regional Industrialization Map. Among them are the SKD assembly plant for Hyundai trucks and buses, the development of industrial batteries at Kainar-AKB LLP, the Green House greenhouse with an area of 3.65 hectares.

The modern meat processing complex "Baiserke-Agro" worth 1.3 billion tenge is becoming in the same ranks. The project plans to produce about 10 types of block meat and sausages.

In the future, the Khorgos International Center for Border Cooperation will be launched in the region. It is expected that by 2016 it should become a major trade business transport and logistics hub. It will ensure the integration of Kazakhstan into the global transport network and open up new transport links between Asia and Europe.

4. Atyrau region (territory 118.6 thousand km2, population 440.3 thousand people). Mission - export of oil and gas products, fish products. Prospects are associated with an increase in oil production, the development of petrochemistry and oil refining. Large-scale investment projects are being implemented in the region: the construction of a complex oil and gas treatment plant, a raw gas injection plant, and an increase in the production capacity of granulated sulfur.

The basis for the development of petrochemistry is the principle of the cluster approach. A fish cluster is developing in the region. The construction industry

cluster is being implemented, which includes about 35 enterprises of the region, the production of bricks and drywall has been increased.

In general, over 20 years, 130 enterprises have been opened in the Atyrau region, employing 30 thousand people. Only rubber and plastic products were produced for 4 billion 290 million tenge. For 3 years, 22 projects have been commissioned under the Industrialization Map.

5. East Kazakhstan region (territory 283.3 thousand km2, population 1531.0 thousand people). Mission - export of mineral resources and products of their processing, supply of engineering and metalworking products. The basis of the economy is non-ferrous metallurgy.

During the years of independence of the Republic of Kazakhstan (RK), this region has become a real industrial giant. The main enterprises of non-ferrous metallurgy are concentrated here - the Ulba Metallurgical Plant, Kazzinc LLP, the Ust-Kamenogorsk titanium and magnesium plant, large machine-building plants - the Sem-AZ enterprise, Daewoo Bas Kazakhstan. JSC "Asia Auto" has mastered the assembly of more than 20 models of cars. Based on the Park of Nuclear Technologies and the Institute of Nuclear Physics, East Kazakhstan is becoming a center for the development of high-tech science-intensive industries.

6. Zhambyl region (territory 144.3 thousand km2, population 988.8 thousand people). The mission is to provide the market with products of the chemical and food industries. Expansion of transit potential, development of phosphorus and other industries (gold, uranium).

If earlier this region specialized in the production of mineral fertilizers, now previously non-existing productions in metallurgy, the construction industry, the agro-industrial complex, transport and trade are being actively created here. Great stakes have been placed on the development of the chemical industry. Even now, the enterprises of this industry produce 72% of all export products manufactured by the region.

Small and medium business is intensively developing in Zhambyl region. By the anniversary of Independence, the Super Pharm company built a new enterprise here - a plant for the production of medical products.

As predicted, in the region by 2015 the volume of non-resource exports will be increased to 36%, and labor productivity will increase by 1.5 times.

7. West Kazakhstan region (territory 151.3 thousand km2, population 616.8 thousand people). The mission is to supply oil and gas for export, expand the production of hydrocarbon raw materials and mechanical engineering, the clothing industry and food products.

Over the years of independence, production in the manufacturing sector has increased 12 times in the region, the problem of energy shortage has been solved, mechanical engineering, the transport industry, shipbuilding and the production of building materials are successfully developing.

By the way, a similar installation for in-depth stabilization and purification of hydrocarbon raw materials began to operate at the Karachaganak field. Due to this, the export potential of the fishery will increase by 25%.

8. Karaganda region (territory 428.0 thousand km2, population 1410.2 thousand people). Mission - supply for export and domestic market of products of ferrous and non-ferrous metallurgy, mechanical engineering and chemistry.

Availability of explored reserves of mineral resources. The subsoil of the region contains 100% of the republic's manganese reserves, more than 80% of tungsten trioxide, 54% of lead reserves, about 49% of zinc reserves, 36% of copper reserves, 32% of coal reserves (including 100% of coking coal reserves), 100% of reserves wollastonite, 70% of barite reserves. There are two oil and gas bearing basins on the territory of the region: the South Torgai and Shu-Sarysu depressions. Currently, three deposits are known within the South Torgai depression: Kumkol, Yuzhny, Maibulak.

The balance takes into account the reserves of 32 deposits of gold, 27 of copper, 22 of molybdenum, 21 of lead, 14 of zinc, 12 of iron, and 108 of non-metallic minerals.

Developed industrial potential. Large complexes of non-ferrous and ferrous metallurgy, coal industry, energy, chemistry, and mechanical engineering have been created in the region. A significant share of the region in the republican volume is occupied by the production of copper, iron, coke, steel, tin, coal, and electricity.

The share of the Karaganda industrial region accounts for 20% of the republican volume of marketable products, 26% - coal mining, 46.9 - iron ore, 100% iron and steel production.

Favorable economic and geographical position. The region is located in the center of the republic, borders on nine regions, the proximity to which allows developing and strengthening trade relations through transit routes, and its proximity to the capital of the republic, Astana, also has a positive effect.

Developed network of transport and communications. Transport infrastructure is widely developed in the region. Public roads make up a network with a total length of 8.8 thousand km. Railway junctions have a developed system of freight and passenger stations. A large air harbor, the airport "Sary-Arka" has the status of an international one.

Karaganda region has a significant scientific, industrial, cultural and human potential. The region successfully develops the sphere of science, scientific service, culture and leisure. The region has become a major university center, a forge of highly qualified personnel.

Availability of nature reserves and historical and cultural monuments. On the territory of the region there is a national park - the mountain forest massif of Karkaralinsk, Lake Balkhash and Lakeside water massif, 2280 monuments of history and culture, of which 1608 are under state protection.

Over the two years of the implementation of the New Industrialization Program, the region has launched the production of specialized agricultural aircraft, panel radiators, polyethylene pipes, and LED lamps.

And recently, ArcelorMittal Temirtau has implemented a unique project - it has put into operation a new generation blast furnace. Now the entire process of smelting iron and ferroalloys will be fully automated.

11. Kostanay region (territory 196.0 thousand km2, population 1077.7 thousand

people). The mission is to supply the market with high-value grain and other agricultural products, as well as metal ores. The number of investment projects has been increased. The optimal variants of specialization of cities and districts of Kostanay region are determined.

Since the country gained sovereignty, industrial output in the region has grown 300 times, agricultural output - 112 times. The automotive industry is developing. Kostanay region provides a quarter of grain and flour produced in the country. During the two years of the industrial program in the region, 38 projects worth 41 billion tenge have been implemented, 2 thousand jobs have been created.

12. Kyzylorda region (territory 226.0 thousand km2, population 596.2 thousand people). The mission is to supply oil and gas resources and agricultural products to the market.

As part of the implementation of the SE FIID, the largest in the country and the first in the south of Kazakhstan sulfuric acid plant was commissioned in the region, built by NAC Kazatomprom JSC jointly with foreign partners in the Zhanakorgan region. The unique enterprise will annually produce 500,000 tons of 98% sulfuric acid for the needs of nuclear scientists, who use the advanced method of underground leaching in uranium mining.

13. Mangistau region (territory 165.6 thousand km2, population 314.7 thousand people). Mission - export to the market of oil, gas and products of their processing. Development of transit transport and communication highways, seaport and pipeline system.

At present, this region occupies one of the leading places in the country in terms of industrial production. Mangistau is becoming a modern transport and logistics center and the most important industrial and infrastructure hub on the map of Kazakhstan.

On the territory of the SEZ “Seaport “Aktau”, together with the company “SAN BAO”, a project was launched to create an “Industrial Park”, consisting of 11 enterprises (Gabdullina et al., 2022 :21-32).

14. Pavlodar region (territory 124.8 thousand km2, population 807.0 thousand people). Mission - providing the market with fuel and energy resources, expanding the export potential.

The region has a high development potential. The volume of investments in this large diversified industrial complex has increased to 200 billion tenge over the years of sovereignty. 5 thousand joint and domestic productions have been created. The volume of industry increased by 256 times and amounted to 844 billion tenge. Foreign trade turnover exceeded 3.5 billion dollars. Over the past two years, within the framework of the AIID GP, 31 projects have been launched here for a total of 123 billion tenge, more than 3 thousand jobs have been opened. In total, by 2016, 168 projects will be implemented in the region. This will bring the region 1 trillion. tenge and will create 10,300 new jobs.

15. North Kazakhstan region (98.0 thousand km2, population 726.0 thousand people). Mission - production and export of high-value grain. The main directions are the development of mechanical engineering, the food industry and agricultural production.

Significant work has been done to revive the machine-building complex.

Today, the region produces various types of railcars, equipment for the oil and gas industry, the agricultural industry, and develops food export potential.

16. South Kazakhstan region (territory 117.3 thousand km2, population 1978.3 thousand people). The mission is to supply oil products, food and light industry products to the market. Priority areas of development are oil refining, chemical, light (textile) and food industries, agriculture, and tourism.

In the region in 2018 alone, more than 1.5 thousand SMEs were created within the framework of the SE FIID, employing 14.5 thousand people, as well as 28 large projects. The program paved the way for the effective development of the region's wealth and potential.

A sharp differentiation of regions in the innovative activity of business is noticeable. Effective support by akimats of innovative processes in the regions is one of the key factors that ensure the formation of an innovative climate and the production of competitive products. Research organizations are becoming an integral part of the region's infrastructure.

As you can see, the republic is able to develop along an innovative path. In other words, the development of the economy through both intensive and innovative ways will allow it to reach the level of at least 50 percent of the G7 average by 2030, which will amount to about $7,500 of GDP per capita. However, for this it is necessary to create conditions for the commercialization of science.

It is obvious that today the innovative potential of the industry of Kazakhstan is characterized by its low level. Among the most important problems that negatively affect the innovative potential of industry are the technical and technological backwardness of industrial enterprises, especially in the manufacturing industries, and the limited investment and intellectual resources. Thus, the analysis of the current state of the industry in Kazakhstan showed that the innovative activity of industrial enterprises is still quite low, and the innovative potential is characterized by such features as a shortage of qualified specialists and poor development of science-intensive and high-tech industries (Korabaev et al., 2022: 74-85).

The lack of a comprehensive, systematic approach to the management of innovation processes hinders the development of the country's innovation potential and does not allow correctly identifying the priorities for its further development.

We can single out the following main problems, the unresolved nature of which negatively affects the development of domestic innovation potential:

- the incompleteness of most scientific developments of technologies and products with the aim of bringing them to the market for demand by consumers. This dramatically reduces the value of the proposed technologies (or products) in the eyes of potential partners;

- lack of modern mechanisms for introducing technological innovations and bringing them to the market. In market conditions, the mechanism for mastering innovations is inextricably linked with small innovative businesses, which are characterized by high risk, but also high returns in case of success. In developed

economies, there is a special sector of the national economy that provides the necessary conditions (infrastructure) for the development of small innovative entrepreneurship;

- lack of developed infrastructure elements to promote innovative projects, such as technology parks and specialized business incubators, a network of risk financing funds (venture funds), special financial mechanisms to support firms at the stage of their rapid growth, certified appraisers of firms and intellectual property, etc.;

- lack of effective demand for advanced technologies and industrial innovations in the domestic market. Science and scientific and technical activity belong to the service sector and these services must be in demand by the market. Unfortunately, the domestic market for scientific services and science-intensive products is currently very small. Most businesses cannot afford to "buy" science services (Simonov et al., 2022: 74-85.).

For Kazakhstan at the present stage, it is very important to create such "rules of the game" in order to be economically profitable to develop innovations in our country. Only under these conditions can interested people and private capital be attracted to this area.

Conclusion. Given that the innovation market is highly risky, it is necessary to provide indirect methods to stimulate innovation activity through the implementation of the following economic measures:

1. Introduction of tax deductions and preferences for subjects of innovative activity;
2. State co-financing of start-up companies in high-tech industries;
3. Stimulating the activity of venture funds;
4. Further development of the national stock market and various financial instruments;
5. Stimulation of licensed trade in intellectual property.

Today, scientists of Kazakhstan have many interesting developments based on the ideas and results of many years of research. But the problem remains their introduction into production, and their sale is completely isolated cases. This is because Kazakh scientific and technological achievements are little known in the world. Meanwhile, Kazakh scientific and technical ideas are much cheaper for consumers, because they take into account the natural and climatic conditions and economic features of Kazakhstan. It is interesting that foreign investors, who initially relied on foreign technologies, have now gradually begun to focus on local developments. But still, foreign developments remain more preferable in terms of their quality characteristics and, with appropriate financial capabilities, are often used by domestic enterprises.

Now Kazakhstan has approached the most crucial milestone in the development of innovations, when plans and intentions must be moved to action. There should be a clearly formulated state industrial policy that provides for a combination of the creation of domestic innovations with the transfer of advanced foreign technologies. More activity is needed in gaining access to new world technologies and ideas to ensure their wide diffusion among national companies. We can transform our country

into an innovative state through a built-in system for preparing human capital for an innovative economy, which will provide for all the elements of stimulating and motivating innovative activity.

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