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## FEATURES OF INDUSTRIAL POLICY IN THE FRAMEWORK OF IMPLEMENTATION OF THE DEVELOPMENT STRATEGY OF THE ARCTIC ZONE OF THE RUSSIAN FEDERATION (AZRF) UNTIL 2035

**Abstract:** In the article, the authors confirm the importance of implementing the strategy for the development of the Arctic zone of the Russian Federation, taking into account the characteristics of the regions along the Northern Sea Route and the railway, in order to form the production of industrial products in these formed transport branches, which are in demand by the population of these regions by making a comfortable suit for all segments of the population, military personnel, permanent and shift workers in order to consolidate jobs, improve the social situation of the population and reduce the immigration of the Arctic regions.

**Key words:** clothing, footwear, knitwear, production, comfortable conditions, social services, social development, employment, profitability, demand, import substitution, profit, economic development, TPE, product competitiveness, quality.

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### Introduction

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The Government of the Russian Federation develops and approves a unified action plan for the implementation of the Fundamentals of State Policy

in the Arctic and this Strategy, which should reflect all stages of the implementation of this Strategy, provision of fundamental, problem-oriented and applied scientific research in the Arctic zone of the Russian Federation, including on the basis of specialized technological platforms, the creation of

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modern scientific and geoinformation foundations for the management of the Arctic territories, including the development of means for solving defense and security problems, as well as the reliable functioning of life support systems and production activities in the natural and climatic conditions of the Arctic;

The implementation of this Strategy is ensured by coordinated actions of federal government bodies, executive bodies of the constituent entities of the Russian Federation, local government bodies, state academies of sciences, other scientific and educational organizations, funds for supporting scientific, scientific, technical and innovative activities, public organizations, state corporations, state companies, joint stock companies with state participation and the business community.

To implement this Strategy, it will be necessary to amend the state program of the Russian Federation "Socio-economic development of the Arctic zone of the Russian Federation", other state programs of the Russian Federation, state programs of the constituent entities of the Russian Federation, as well as the infrastructure development plan of the Northern Sea Route for the period up to 2035.

The main directions for the implementation of this Strategy in the Murmansk region are:

- integrated development of the seaport of Murmansk – the only ice-free Russian port in the Arctic, the development of the Murmansk transport hub as a multimodal transport hub, the construction of new terminals and transshipment complexes on the territory of this port;

- comprehensive development of closed administrative-territorial formations and settlements in which military formations are deployed, including the development of infrastructure and the modernization of dual-use facilities;

- creation and development of offshore economic service complex enterprises, carrying out repair, supply and bunkering of ships, development of coastal bases in order to provide services on a competitive basis to companies engaged in shipping in the water area of the Northern Sea Route and implementing projects in the Arctic zone;

- creation and development of a center for the construction of large-tonnage offshore structures intended for the production, storage and shipment of liquefied natural gas, the creation and development of enterprises that repair and maintain marine equipment and equipment used for the development of offshore hydrocarbon deposits;

- geological study of the mineral resource base of the Kola Peninsula, the formation of new and development of existing mineral resource centers specializing in the extraction and processing of minerals;

- development of the energy infrastructure, including the replacement of equipment intended for

fuel oil heat generation with equipment using other types of energy resources;

- modernization of airport complexes, including the international airport of Murmansk;

- development of the congress, exhibition and business infrastructure of the city of Murmansk in order to realize the competitive advantages of the Russian Federation in the field of international cooperation and business tourism in the Arctic;

- development of the fishery complex (taking into account the need to preserve and develop the resource potential of the fishery), technical re-equipment of enterprises, including the construction of ships, the introduction of new capacities for deep processing of aquatic biological resources on a modern technological and organizational basis, as well as the development of aquaculture;

- development of tourist and recreational clusters, including in the territories of Kirovsk, with Teriberka, Kovdorsky, Pechengsky and Tersky municipal districts.

The main directions for the implementation of this Strategy in the Nenets Autonomous Okrug are:

- development of the project for the construction of the Indiga deep-water seaport and the Sosnogorsk - Indiga railway;

- development of transport infrastructure, including the reconstruction of the seaport of Naryan-Mar, the airport of Naryan-Mar and the airport of the village. Amderma, carrying out dredging works on the Pechora river, construction of the Naryan-Mar - Usinsk highway;

- development of the Varandey, Kolguevsky, Kharyago-Usinsky and Khasyreysky oil and mineral resource centers;

- formation of gas condensate mineral resource centers on the basis of the fields of the Nenets Autonomous Okrug, including the development of the Korovinsky and Kumzhinsky gas condensate fields, Vaneivissky and Layavozhsky oil and gas condensate fields;

- geological study and development of the mineral resource base of solid minerals in order to diversify the economy of the Nenets Autonomous Okrug;

- construction of an agro-industrial park and implementation of export-oriented projects involving deep processing of reindeer meat;

- development of a tourism cluster, including the infrastructure of cultural, religious and ethnic tourism.

The main directions for the implementation of this Strategy in the Chukotka Autonomous Okrug are:

- development of the seaport of Pevek and its terminals;

- creation of a transport and logistics hub in the deep-water year-round seaport of Provideniya;

- modernization of the Chaun-Bilibino power center;

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- development of transport infrastructure, including the construction of the interregional highway Kolyma Omsukchan - Omolon - Anadyr;
- joining the Nenets Autonomous Okrug to the unified telecommunication network of the Russian Federation by creating an underwater fiber-optic communication line Petropavlovsk-Kamchatsky - Anadyr;
- development of the Baimsky and Pyrkakaysko-Maysky mineral resource centers of precious and non-ferrous metals;
- development of the Bering coal-mining center, construction of a year-round terminal in the deep-water lagoon Arinay;
- creation of an emergency rescue unit and an Arctic crisis management center in Pevek;
- the development of cruise Arctic tourism and the formation of ethno-ecological tourist clusters in the territories of Anadyr, Pevek and the village. Providence.

The main directions for the implementation of this Strategy in the Yamalo-Nenets Autonomous Okrug are:

- development of the seaport of Sabetta with shipping terminals and a sea shipping canal in the Gulf of Ob;
- construction and development of the Obskaya - Salekhard - Nadym - Pangody - Novy Urengoy - Korotchaev and Obskaya - Bovanenkovo - Sabetta railways;
- expansion of liquefied natural gas production on the Yamal and Gydan peninsulas;
- development of gas fields in the Gulf of Ob with the development of a pipeline system for gas transportation;
- development of the Novoportovskoye oil and gas condensate and Bovanenkovskoye gas condensate mineral resource centers, the development of the Tambey group of fields and preparation for the development of shelf fields;
- development of oil and gas chemical production in the area of the village. Sabetta, pos. Yamburg, Novy Urengoy and the formation of a diversified industrial and technological complex for gas processing and petrochemistry;
- maintenance and development of gas and oil pipeline networks, development of gas and oil mineral resource centers of the Nadym-Purskaya and Pur-Tazovskaya oil and gas bearing regions connected to pipelines, including the use of new technologies for the extraction and development of underlying reservoirs, as well as hard-to-recover oil reserves;
- development of technologies for involving low-pressure natural gas into industrial circulation, including technologies for gas compression;
- expansion of the centralized power supply zone by connecting settlements to a unified power system;

- development of oil and gas services through the creation of industrial zones in support settlements;
- organization of production of building materials in order to meet the needs of the fuel and energy complex and housing construction;
- creation of an emergency rescue unit and an arctic crisis management center in the village. Sabetta;
- the formation of a tourist cluster based on the agglomeration, which includes the city of Salekhard, the city of Labytnangi and the village. Harp.

The solution of tasks in the field of military security, protection and protection of the state border of the Russian Federation is ensured through the implementation of measures provided for by the state armament program, within the framework of the state defense order and state programs of the Russian Federation.

The general management of the implementation of this Strategy is carried out by the President of the Russian Federation.

The tasks, functions, procedure for coordinating the activities and interaction of state authorities, local authorities and organizations in the implementation of this Strategy are determined in accordance with the legislation of the Russian Federation.

The implementation of this Strategy is carried out at the expense of the budgets of the budgetary system of the Russian Federation, including at the expense of funds provided for the implementation of the state program of the Russian Federation "Social and economic development of the Arctic zone of the Russian Federation", and extra-budgetary sources.

### Main part

In modern conditions, the Arctic is positioned as a source of resources for socio-economic development country. Thus, the explored gas reserves of industrial categories there account for 80% of the all-Russian reserves. 90% of the recoverable hydrocarbon resources of the entire continental shelf of the Russian Federation are concentrated in the Arctic, including 70% - on the shelf of the Barents and Kara Seas. The presence of hydrocarbons is predicted in the deep-water part of the Arctic Ocean. The production of natural gas, apatite concentrate, and many strategically important non-ferrous and precious metals (nickel, copper, cobalt, etc.) is concentrated in the Arctic regions. Now in the Arctic about 5% of Russia's GDP and 22% of all-Russian exports are produced, 75% of natural gas, about 90% of nickel and cobalt, 60% of copper, 96% of platinoids, 100% of barite and apatite concentrate are mined. Thus, the Arctic is able to provide a solution to the problems of the country's socio-economic development in the 21st century and to a large extent meet Russia's needs for hydrocarbon, water, biological resources and other types of strategic raw materials.

Late April - early May 2014 year... The President of the Russian Federation and the Government of the

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Russian Federation adopted significant documents on the socio-economic development of the Russian Arctic (Table 1):

**Table 1. Gross domestic product per capita, thousand rubles**

Regions	2016 year...	2017 year...	2018 year...	2019 year...	2020 year...
Murmansk region	252	260	294	301	357
Nenets Autonomous District	2178	3099	3389	3084	3841
Chukotka Autonomous Okrug	612	919	827	786	960
Yamalo-Nenets Autonomous District	1322	1190	1476	1505	2211
Russian Federation	239	226	262	273	348

- On April 21, 2016, the Government of the Russian Federation, by its Resolution No. 366, approved the state program of the Russian Federation "Social and economic development of the Arctic zone of the Russian Federation for the period up to 2035";

- On April 22, 2016, a meeting of the Russian Security Council on the Arctic was held under the chairmanship of the President of the Russian Federation;

- May 2 2014 year... President of the Russian Federation V.V. Putin signed decree No. 296 "On the land territories of the Arctic zone of the Russian Federation."

By Decree of the President of the Russian Federation No. 296 of May 2 2014 year... "On the land territories of the Arctic zone of the Russian Federation" the AZRF includes the territories of 8 constituent entities of the Russian Federation: 1) Murmansk region; 2) seven municipalities of the Arkhangelsk region; 3) the Nenets Autonomous Okrug; 4) urban district "Vorkuta" of the Komi Republic; 5) Yamalo-Nenets Autonomous Okrug; 6) the urban district of Norilsk, the Taimyr Dolgan-Nenets municipal district and the Turukhansk district of the Krasnoyarsk Territory; 7) five uluses (districts) of the Republic of Sakha (Yakutia); 8) Chukotka Autonomous Okrug; 9) lands and islands located in the Arctic Ocean, specified in the decree of the Presidium of the Central Executive Committee of the USSR of April 15 1926 year... and other acts of the USSR.

Taking into account that this configuration of the Russian Arctic is still being introduced, below we analyze industrial policy within the framework of the constituent entities of the Russian Federation, which are completely included in the Arctic zone.

The economic space of the Arctic has a rather specific structure: industrial production here reaches 60% of the gross regional product, which is almost two times higher than similar national indicators.

Obviously, this feature will persist in the future: the transition to the model of a networked economic system is not needed here, and indeed it is impossible. However, the transition to an innovative economy is extremely necessary, given the high cost of labor in special natural and climatic conditions.

The traditional approach to comparative analysis and the level of development of the Arctic regions is the study of the following main economic indicators:

- production of GDP per capita,
- the level of per capita income, industrial production, etc.

As for the GDP indicators, they are practically for all Arctic regions, as can be seen from Table. 2, are several times higher than the national level, with the exception of the Murmansk region.

For the period 2008–2013 The largest contribution to the total production of the gross regional product of the Arctic regions was made by the Nenets and Yamalo-Nenets autonomous districts. This contrast is largely due to the small volume of export products of the mining and processing activities of these regions, the local economy, which mainly serves the domestic market, and the small population.

The most important factor in the difference between the regions is the sectoral specialization of the economy, primarily industry, the dynamics of which in the Russian Arctic is characterized by multidirectional trends. For example, in the Chukotka Autonomous Okrug, production volumes increased by almost 90%. These indicators are primarily due to the development of new deposits. Over the past six months, new projects have been actively studied in Chukotka, 18 out of the proposed almost 350 projects were taken into development. In 2013, two more gold mining facilities were commissioned, therefore, by the end of 2014, local authorities expect a significant increase in performance.

Negative trends are also observed in the sphere of real money income (Table 3), where in all four considered subjects of the Russian Federation in

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recent years the growth of real wages has been significantly lower than the national average, or it does not occur at all (Nenets Autonomous Okrug) ...

The main reason is the outstripping growth in prices for essential goods within the list of the consumer basket.

**Table 2. Real cash income of the population, % of the previous year**

Regions	2016 year...	2017 year...	2018 year...	2019 year...	2020 year...	For 5 years
Murmansk region	99.9	98.5	96.7	107.6	104.7	107.0
Nenets Autonomous District	89.4	101.4	98.4	110.9	101.5	100.0
Chukotka Autonomous Okrug	91.9	106.0	109.5	105.9	95.2	108.0
Yamalo-Nenets Autonomous District	91.5	100.4	103.8	110.6	102.7	108.0
Russian Federation	101.8	105.4	101.2	105.8	103.7	119.0

Natural resource potential, which is determined by the quantity, quality and combination of natural resources, plays a huge role in the development of any region. The availability of natural resources, firstly, affects the formation of the territorial structure of the economy;

- the natural resource potential significantly affects the sectoral specialization of the region.
- quantity, quality.
- the efficiency of the use of natural resources affects the rates of regional socio-economic development.
- the possession of natural resources contributes to an increase in the role of the region in the all-Russian commodity market.

At present, the importance and necessity of expanding Russia's presence in the Arctic is obvious, which is due to the strategic nature of the Arctic zone for the prospects for the socio-economic and political development of the country and its territories. The Arctic, as the researchers emphasize, is "the strategic resource base of the Russian Federation, ensuring the solution of the tasks of the country's socio-economic

development." The Arctic zone should ensure sustainable development of the country in the long term. It is at the expense of the resources of the Arctic and the pre-Arctic zone that in the future it will be possible to support the country's economy.

In accordance with the energy strategy of Russia for the period up to 2020, the priorities of the energy policy will be the development of the oil and gas industry on the coast of the Arctic Ocean and the shelf of the Arctic seas. The strategic priority region for production will be the Yamal Peninsula, as well as the waters of the northern seas of Russia, such as the Barents and Kara. Despite the increase in the share of alternative and renewable energy sources in the global energy balance, in the future, hydrocarbons will continue to be the main sources of energy. It may be recalled that the hydrocarbons of the Arctic shelf are estimated at 40 billion tons of fuel (conventional), which is comparable to the total explored reserves of oil and gas in the country. They also determine the investment attractiveness of the Russian Arctic, the dynamics of which is shown in Table. 3.

**Table 3. Fixed capital investments per capita, thousand rubles**

Regions	2016 year...	2017 year...	2018 year...	2019 year...	2020 year...
Murmansk region	51.9	48.4	70.7	68.3	79.5
Nenets Autonomous District	866.1	1010.8	1046.7	882.3	1401.7
Chukotka Autonomous Okrug	290.3	106.7	183.5	279.2	205.6
Yamalo-Nenets Autonomous District	657.6	739.1	899.0	1048.2	932.9
Russian Federation	55.8	64.0	77.1	87.7	92.3

It can be noted that in terms of investment attractiveness and activity, the Nenets, Chukotka and Yamalo-Nenets Autonomous Okrugs are constantly in the top ten Russian regions. Of course, this is due to

mineral resources. The largest amount of investment in fixed assets per capita in 2013 was in the Nenets Autonomous Okrug (1401.7 thousand rubles), the

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smallest - in the Murmansk Region. (79.5 thousand rubles).

In general, the value of investments in fixed assets per capita in the Russian Federation in 2020 (compared to 2018) increased by 1.7 times, and in the Arctic regions - by 1.5 times, with the exception of the Chukotka Autonomous Okrug, in which the amount of investments by per capita in 2020 decreased by 29%. Negative dynamics during 2019–2020 in the Chukotka Autonomous Okrug is associated not with low investment activity in this region, but with the planned financing of large projects, a significant part of which was mastered before the beginning of the forecast period. In the Chukotka Autonomous Okrug, such projects are the development of the Mayskoye deposit and the construction of transport infrastructure within the framework of the Federal Targeted Investment Program.

A serious problem of Arctic investments remains the fact that they are directed mainly to mining complexes, the production and social infrastructure is significantly lagging behind. There are great opportunities here for the development of public-private partnerships. As for the most resource corporations, their role here is much higher than in the more diversified central regions of the country. At the same time, it is they who provide the main budget revenues, employment and, in general, are city-forming for many cities and settlements. On the other hand, in the conditions of the predominantly nature of the exploiting economy, they are very important on a national scale.

The objective prerequisites for a new, "third" industrialization are laid down in the very structure of the real sector of the domestic economy, which combines relatively highly developed complexes (resource and raw materials, fuel and energy, and military industrial) and historically backward industries (mechanical engineering, mining equipment, controls, transport systems, infrastructure, etc.) requiring strategic modernization. The interaction of these complexes, including financial ones, can give a synergistic effect.

It is obvious that a change in the political situation in connection with the Ukrainian crisis can have a definite impact on economic development trends. The "war of sanctions" will restrain the inflow of investments and the possibility of borrowing equipment and technologies by Russian corporations, but only in the short term, because it is not profitable for everyone. Of course, the toughest position has been and will be occupied by the United States of America, for which the hotbed of tension in Europe is extremely beneficial. However, the fall in energy prices is causing significant damage to their shale industry; if prices fall below \$ 50 per barrel, more than half of the existing gas wells will turn out to be unprofitable and the construction of new ones will

practically cease. That experts see the need to bridge security differences,

For the domestic industry, sanctions can and should serve as a powerful impetus to import substitution. At the same time, it should be noted that it is impossible to get involved in the modern world division of labor and take high competitive positions, being technologically backward. In this regard, as already noted, the most important issue is the transition from a resource-based economy to an innovative one. Can these economic systems be considered antipodes? Apparently not. Which type should be attributed to Norway, Qatar, Mexico or the same China, which has repeatedly demonstrated to the world the excellent capabilities of the raw materials complex when it is supported by effective government policy: first on the world magnesium markets, then titanium, and finally, in 2001–2012. in the rare earth metals markets.

The specificity of the industrial complex of the Russian North and the Arctic zone of the Russian Federation (AZRF) is its high corporatization, which is characteristic of the raw materials industries and globally. Up to 80% of industrial production is concentrated in the largest companies, primarily in the oil and gas sector (OJSC Gazprom, etc.), in metallurgy (OJSC Severstal, OJSC MMC Norilsk Nickel) and chemical (OJSC PhosAgro, OJSC MCC EuroChem ") industries. In the short term, the development of a new resource base, including on the Arctic shelf, will require large capital investments due to more difficult development conditions and the need for new technological approaches.

Thus, industrial production in the Russian North of the Russian Arctic is represented by large vertically integrated companies that occupy high places in the list of major Russian corporations. In total, there are more than 20 such companies that are operators (actors) of unique fields in the North, and we are far from being able to consider all vertically integrated oil companies within the framework of this article. Therefore, below we will try to show some of the tendencies of the "corporate" economy using the example of typical representatives. At the same time, one of the main grouping signs was the presence of a raw material base in the regions of the North in the Arctic regions, including the Murmansk region.

The peculiarity of Russia lies in its northernness. The Arctic zone of the Russian Federation (AZRF) plays a crucial role in the innovative industrial development and economy of the country. The importance of the Arctic territories for modern Russia is due to the fact that, on the one hand, it is a vast, vital part of the country's territory with extreme living conditions and a pronounced specificity of socio-economic development. On the other hand, this macro-region is a zone of strategic interests of Russia, as it has a unique geopolitical, natural resource and socio-economic potential. Any option for the further

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development of the Russian economy should take into account that the AZRF, including the Northern Sea Route, refers specifically to strategic resources, which raises the question of their optimal use. In this regard, the effective organization of all types of economic activity, including the development of human potential, transport, the exploitation of natural resources, and the achievement of maximum environmental safety, are of great importance. However, this activity must be adapted to the conditions of the heterogeneity of the economic space of the Russian Arctic, on the one hand, and the need to maximize the use of its competitive advantages, on the other.

The studies carried out have shown that the growth of industrial production of the Russian Arctic

is mainly due to extensive factors - an increase in volume, and not the use of innovative technologies. At the same time, the volume of natural resources has made it possible for the last three years to outstrip the industrial production index of the Russian Federation, but compared to 2012, the indicators are decreasing.

The analysis of the industry of the Arctic regions in 2015 showed that the maximum index of industrial production was demonstrated by the Nenets Autonomous Okrug (107%). On the territory of the Autonomous Okrug, on the basis of the development of oil, gas and coal deposits, the Timan-Pechora fuel and energy complex is being formed. The minimum value of the industrial production index in the Chukotka Autonomous Okrug.

**Table 4. The ratio of the average per capita money income of the population to the subsistence minimum**

	2017 Nov.	Oct 2018	Dec 2019	2020 g.
Arkhangelsk region (without JSC)	6.00	2.84	2.42	2.80
Nenets Autonomous District	10.48	n / a	4.27	4.63
Murmansk region	5.25	3.11	3.25	3.62
Yamalo-Nenets Autonomous District	8.73	4.85	4.64	5.15
The Republic of Sakha (Yakutia)	5.28	2.69	2.64	3.27
Chukotka Autonomous Okrug	5.85	3.99	3.57	5.69
AZRF	6.95	3.98	3.55	4.19
Russian Federation	n / a	3.46	3.54	4.01

The ratio of the average per capita money income of the population to the value of the subsistence minimum is given in Table. 4.

The maximum ratio of the average per capita money income of the population to the subsistence level in 2017 is observed in the Chukotka Autonomous Okrug, the minimum - in the Arkhangelsk Region (excluding the Nenets Autonomous District). At the same time, the "spread"

between the polar regions in terms of average per capita money income is more than two times.

The costs of technological innovation precede the release of innovative products, which can be considered as a result of these costs. The costs of technological innovations, in% of the total volume of goods shipped, work performed, services, are given in table. five.

**Table 5. Costs for technological innovations, in% of the total volume of goods shipped, work performed, services**

	2014	2015 g.	2016 Nov.	2017 Nov.	Oct 2018	Dec 2019	2020 g.
Arkhangelsk region	0.5	0,4	0.1	1.0	4.3	1.6	1.8
Nenets Autonomous District	0.0	0.2	0.0	-	4.2	-	-
Murmansk region	3.1	2.4	1.5	0.2	0.3	0,4	0.7
Yamalo-Nenets Autonomous District	0.7	0.5	1.5	0.6	1.0	0.1	0.2
The Republic of Sakha (Yakutia)	0.8	0.2	0.2	0.2	0.7	1,3	0.9
Chukotka Autonomous Okrug	-	-	0.0	0.2	0.1	0.1	-
AZRF	1.0	0.7	0.6	0,4	1.8	0.6	0.9
Russian Federation	1.4	1.9	1.5	1.5	1.8	2.2	2.1

The leader in terms of the cost of technological innovation in the total volume of goods shipped, work performed, services is the Arkhangelsk Region, the

minimum value is the Yamalo-Nenets Autonomous District. In general, the share of costs of the Russian

## Impact Factor:

ISRA (India) = 6.317	SIS (USA) = 0.912	ICV (Poland) = 6.630
ISI (Dubai, UAE) = 1.582	ПИИИ (Russia) = 0.126	PIF (India) = 1.940
GIF (Australia) = 0.564	ESJI (KZ) = 9.035	IBI (India) = 4.260
JIF = 1.500	SJIF (Morocco) = 7.184	OAJI (USA) = 0.350

Arctic is almost two times lower than that of the Russian Federation.

Over the last seven years in the Russian Arctic, the share of costs for technological innovation from the total volume of goods shipped, work performed, and services did not exceed 2%. At the same time, the

same indicator is 3.45% in Denmark, 2.98% in Sweden, 2.93% in Finland, and 2.98% in Germany. This factor affects the volume of innovative goods, works, services from the total volume of goods shipped, works performed, services in the regions of the Russian Arctic (Table 6).

**Table 6. The volume of innovative goods, works, services of the total volume of goods shipped, works performed, services, %**

	2015 g.	2016 Nov.	2017 Nov.	Oct 2018	Dec 2019	2020 g.
Arkhangelsk region	0.3	0.8	0.4	13.9	45.3	2.8
Nenets Autonomous District	0.1	0.0	0.0	-	-	-
Murmansk region	0.6	0.5	0.2	0.1	0.8	3.6
Yamalo-Nenets Autonomous District	0.0	1.4	1.5	1.3		0.0
The Republic of Sakha (Yakutia)	0.4	1.1	0.4	0.3	2.9	1.6
Chukotka Autonomous Okrug	12.0	0.6	-	1.2	1.7	0.0
AZRF	2.2	0.7	0.5	3.4	3.4	1.6
Russian Federation	4.7	4.8	6.3	8.0	9.2	8.7

The volume of innovative goods, works, services from the total volume of shipped goods, works performed, services in the regions of the Russian Arctic is 5 times lagging behind the indicators for the Russian Federation. At the same time, the maximum value is in the Murmansk region, the minimum - in the Yamalo-Nenets Autonomous District. These indicators are incommensurable with foreign countries, so in Germany - 15.5%, Denmark - 15.0, Ireland - 9.3, Norway - 6.1, Finland - 15.3, Sweden - 8.4%.

It should be noted that investments in the extraction and processing of minerals are long-term. At the same time, experts have no doubts about the need to develop the Arctic in the long term. That is why the Arctic countries have developed and adopted at the state level program documents and strategies expressing their intentions in the development of the Arctic. In 2008, Norway's Northern Strategy ("The Norwegian Government's Strategy for the Northern Regions") was adopted, in the summer of 2009 - Canada's Northern Strategy. Our north, our Heritage, our Future, in March 2011, Parliamentary Resolution was adopted on the Arctic policy of Iceland ("A Parliamentary Resolution on Iceland's Arctic Policy"),

Some provisions of her strategy coincide, first of all, in the following directions:

- the strategic importance of the Arctic territories extends not only to individual states, but also to the entire North of the planet, while the Arctic is recognized as a resource base both for each of the countries and for the world community;

- USA, Canada, Norway and Russia claim exclusive leadership in the Arctic and solve the problem of strengthening their sovereignty over the corresponding sector of the Arctic;

- The USA, Canada, Norway and Russia plan to develop the economy, social sphere, environmental protection of their Arctic sector and the development of scientific research;

- all subarctic countries consider the presence of arctic groupings of troops, the construction of military bases and the corresponding infrastructure necessary.

Based on a comparative analysis of state strategies in the global Arctic, it was revealed that most of the Arctic states prefer long-term cooperation.

The state innovation policy of overcoming challenges in the development of the Arctic shelf is of particular importance. The largest foreign companies, despite the sanctions, are still showing interest in cooperation on the development of the continental shelf based on innovative technologies. However, the sanctions have seriously complicated the development of offshore fields. A change in the rules and mechanism for obtaining licenses for the development of deposits is required. When selecting companies, one of the main criteria should be experience of working on the Arctic shelf and modern technological capabilities for hydrocarbon production.

Currently, the issue of private companies' access to the development of the continental shelf is being discussed. More than 80% of licenses for offshore operations were issued by OJSC Gazprom and OJSC Rosneft, which, according to the law, are entitled to such operations. The author considers the decision to grant private oil companies the right to operate on the shelf premature. Arctic shelf development projects must be highly innovative and must be carried out by highly qualified specialists. It is pertinent to recall the disaster that took place at BP's Deepwater Horizon oil platform in the Gulf of Mexico. In the Arctic, with its



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**GIF (Australia) = 0.564**  
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**SIS (USA) = 0.912**  
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vulnerable nature, the disaster can be much more unpredictable. Unfortunately, in today's situation, it is almost impossible to attract professional partners, as well as foreign innovative technologies, including Norwegian specialists with experience in offshore development in the Barents Sea. In addition, the development of deposits should be of a strategic nature, often not deciding the immediate profit and capitalization of the company. Only a state-owned company can afford it. For a private company, the main thing is profit and capitalization.

We should admit the lag in the implementation of innovative technologies in the development of new offshore fields and the backwardness of the transport infrastructure. Prospective deposits are characterized by the complexity of development, remoteness from the continent, depths, severity of climatic conditions, and the relief of the seabed. Scientists consider the amount of observation and experience in Arctic conditions to be insufficient. The development and implementation of potentially new technologies is required. The work requires serious financial investments and the involvement of large world-class corporations. The development of hydrocarbon deposits requires huge sums of money to develop the infrastructure of power supply and transport.

The Russian model for the development of the resources of the Arctic shelf was formed during the period of lagging of the institutional block, including technical regulations, national and industry standards. Incompleteness, instability and variability of the norms and rules for the study and development of raw materials resources provoke additional risks for subsoil users and the Arctic regions. There is no scientifically substantiated economic mechanism for monitoring the execution of license agreements. Due to the imperfection of state regulation in the field of environmental management and inter-budgetary relations, the Arctic territories suffer significant losses. The methods of state stimulation of the development of various types of activities in the Arctic are not used.

Innovative tendencies in the development of the Arctic shelf lead to a situation where Russia lags behind the developed northern countries by 30-40 years in terms and, accordingly, in technologies and techniques for extracting and transporting resources, especially oil and gas from offshore fields.

The implementation of projects for the development of hydrocarbons in the Arctic seas requires significant coordination of actions, carried out not within the framework of individual field development projects, but complex - the development of a single territorial fuel and energy complex on the shelf and coast of the Pechora, Barents and Kara Seas, connected by a single infrastructure.

This is one more proof of the premature admission of private companies for offshore operations. Arctic deposits should be developed only

on the basis of innovative technologies. It should always be remembered that the Arctic subsoil also belongs to future generations of Russians.

More stringent legislation is required. It is necessary to increase the development period of shelf deposits from 5 to 10 years.

The sequence of development of innovative technologies in the conditions of market relations in the North and in the Arctic largely depends on the needs of the regions, which are associated with the aggravation of socio-economic or other problems. However, due to the great disunity of the productive forces involved in the creation of new technologies, the process of forming the innovation-technological chain is proceeding extremely slowly and needs state regulation and stimulation.

However, there is still no full-fledged federal law "On the Arctic zone of the Russian Federation". It is necessary to legislate in the law the organizational and legal mechanism for the implementation of the main goals and directions of state policy in the AZRF, taking into account its specific features and significance for the national interests of the Russian Federation. The bill should enshrine the principle of innovative development of extraction and processing of natural raw materials with minimization of environmental damage.

The effectiveness of innovative activities largely depends on the institutional conditions for creating innovations, the availability of an innovative infrastructure in the region, the degree of interaction between economic agents interested in increasing the efficiency of their activities by improving technologies.

The subjects of the Russian Arctic have adopted laws on science and scientific and technical activities, for example, the law of the Arkhangelsk region of February 25, 1998, No. 60-14-OZ "On the regional scientific and technical policy of the Arkhangelsk region" and the law of the Republic of Sakha (Yakutia) of April 15, 2004 3 N 268-III "On Science and State Scientific and Technical Policy". In other regions, laws on innovation activities have been adopted, for example, the law of the Murmansk region "On innovations and innovative activities in the Murmansk region" dated May 31, 2004 No. 484-01-ZMO, the laws of the Yamal-Nenets JSC "On innovation activity" dated June 18, 1998 No. 30-ZAO and "On the development of innovative activities" dated April 27, 2011 No. 34-ZAO. In addition, the Murmansk region adopted a law "On the principles of organizing scientific, scientific, technical and innovative activities in the Murmansk region" dated November 8, 2001 No. 301-01-ZMO.

In order to form a unified regulatory framework and legislative support for the development of the innovative economy of Russia, the adoption of the Federal Law "On Innovations and Innovation

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Activities" is required. State industrial policy should be intensified.

Only in one subject of the Russian Arctic - the Yamalo-Nenets Autonomous District, a Department for Science and Innovation has been created, which ensures the implementation of the state scientific and technical, innovation policy and carries out executive administrative activities in the field of science, scientific and technical and innovation activities, investment activities in the field of innovation, development of innovative industries, new technologies, small and medium-sized businesses in the field of innovation.

Another direction of state policy is associated with the creation of conditions for the development of cooperative relations in research and development between the private sector and the state scientific and technical sector, including through stimulating demand for innovative technologies from domestic companies through various tools and mechanisms that reduce the risks of their use. ... In the practice of strategic management of scientific and innovative activities in the subjects of the Russian Arctic, its main form is scientific and innovative programs, for example:

- in the Yamalo-Nenets Autonomous District there is a Program "Development of scientific, scientific, technical and innovative activities for 2014 - 2020";

- in the Republic of Sakha (Yakutia), the Concept of Science, Technology and Innovation Policy until 2015 and Main Directions until 2035 was adopted;

- in the Murmansk region adopted the "Strategy for the development of science, scientific, technical and innovative activities in the Murmansk region for the period until 2015".

Currently, there is a need for interdisciplinary research, which makes it possible to organize close cooperation between scientific and educational organizations in the creation of high-tech industries. In this regard, attention should be paid to the current Resolution No. 218 "On measures of state support for the development of cooperation of Russian higher educational institutions and organizations implementing complex projects to create high-tech production", which regulates the implementation of the project with the support of an interested industrial enterprise with financial participation of the state (compensation up to 50 % of expenses), needs improvement. The decree is aimed at stimulating innovation processes, but the only criterion for assessment is the volume of costs for the project. Federal Law No. 94-FZ "On placing orders for the supply of goods, performance of work, provision of services for state and municipal needs" obliges to fulfill competitive obligations.

As a result, scientific organizations and universities compete with each other not in the

essence and quality of scientific developments, but in the cost of work. As a rule, the winners are potential performers who request the minimum cost of work. It is necessary to make changes to legislative acts to stimulate the innovative industry for the activities of scientific and educational organizations and enterprises, primarily large corporations of the Russian Arctic. As a result, scientific organizations and universities compete with each other not in the essence and quality of scientific developments, but in the cost of work. As a rule, the winners are potential performers who request the minimum cost of work. It is necessary to make changes to legislative acts to stimulate the innovative industry for the activities of scientific and educational organizations and enterprises, primarily large corporations of the Russian Arctic. As a result, scientific organizations and universities compete with each other not in the essence and quality of scientific developments, but in the cost of work. As a rule, the winners are potential performers who request the minimum cost of work. It is necessary to make changes to legislative acts to stimulate the innovative industry for the activities of scientific and educational organizations and enterprises, primarily large corporations of the Russian Arctic.

### Conclusion

Our country is the only country in the world that has proven that nothing depends on the climatic zone if there is a developed industry and infrastructure. We offer our own solution to a whole range of problems, the most optimal in our opinion, namely: In the future and existing cities of the Russian Arctic, such as; Nizh-Bestyakh, Tiksi, Ust-Nera, Chokurdakh, Dachny, Markovo, Ionvey. The creation of light industry enterprises in them is due not only to their location on the track of the railways, which is not unimportant, but also to their advantageous location near the large rivers of the Russian Arctic, going into the ocean, which will automatically provoke a sharp increase not only in freight traffic, but also the possibility, if necessary, with minimal costs implement an industrial policy to provide these regions with demanded and imported products being replaced.

That is, it will be gold for light industry will allow the production of cheap, unique and other goods such as shoes, belts, bags and other fish skin, fur coats and clothes made of reindeer skins, and so on, so light industry products will be in demand not only in our country but also abroad. It is strange not to take advantage of such a treasure, when everything can not only pay off, but also become an economic superiority in the field of light industry over leading economic powers like China and the United States, since none of them has such potential as Russia. But this is in the future, but for now we propose to start small on the basis of our analytical work, that is, if we do

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everything wisely, then this will not only be our version of the development of events, but will become a reality and provoke the effective development of the Arctic regions.

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