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Further to the Opportunities to Elevate the Industrial Policy' Effectiveness in the Arctic Zone of the Russian Federation

E.L. Moreva, L.V. Obolenskaya
Financial University, Moscow, Russia

ABSTRACT

The actuality of the paper is due to the intensification of the strategic, geopolitical, economic, ecological and other challenges to the Russian Arctic' industrial development which requires the State to respond to them. Thus, the improvement of the Industrial policy (IP) realized in the region and the determination of the opportunities to boost its effects are among the arctic agenda' issues. The analysis and the assessment of the effectiveness of the course in practice form the objective of the present paper, with its tasks to define the opportunities to elevate the policy' effectiveness. To solve the above problems, the authors used the general scientific research methods: analysis, synthesis, logical, dialectical, comparative and others. Their application to study the IP in the Arctic Zone of the Russian Federation (AZRF) resulted in the identification of a number of shortcomings when the policy' development and implementation, i.e. the use of quantitative indicators of IP efficiency developed by the authors with the managerial factor accounted; the consideration of the continuity when changing the stages of strategic management; the compulsory use of the information support to the course as a special system that allows one to monitor constantly the effectiveness of IP and identify opportunities to improve it at the system level, as well as the recommendations to accomplish these possibilities.

Keywords: industrial policy; Arctic Zone of the RF; industrial development; effectiveness; development strategy; effectiveness parameters; effectiveness indicators; information and analytical support

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INTRODUCTION

The numerous strategic, geopolitical, economic, environmental, and other challenges facing the Russian Arctic today put on the agenda the question of an economic and political course that can respond effectively to them. Its relevance was emphasized by Russian President Vladimir Putin, who noted that Russia's future is largely connected with the Arctic: the state is systematically launching projects in various fields of industry and other spheres of the region's economy and intends to continue this policy in the future.[1] Assessing the effectiveness of such efforts, which are now being undertaken as part of IP in the Arctic zone, and identifying opportunities for increasing their industrial effectiveness, which are extremely important for the further development of the region and the country as a whole, is the subject of this study.

In the course of the work, the authors needed to

- to analyse the available theoretical approaches to IP;
- to identify the objectives, measures and basic conditions for evaluating the effectiveness of IP in the AZRF;
- taking them into account, to specify the main parameters of IP evaluation;
- to identify the conditions that ensure the effectiveness of IP in the changing stages of strategic management of industry in the Arctic;
- to find out the importance of information and analytical support for IP to improve its effectiveness;
- identify opportunities to improve the effectiveness of the course when analysing its practical implementation.

[1] The Investment Portal of Russia's Arctic Zone. Putin says Russia's future is largely tied to the Arctic. (online resource). 05.09.2022. URL: https://arctic-russia.ru/news/putin-zayavil-chto-budushchee-rossii-v-znachitelnoy-stepeni-svyazano-s-arktikoy/

LITERATURE REVIEW AND ANALYSIS

The issues of IP have been the subject of attention of scientists for several decades — they have analyzed the circumstances that trigger the need for such an economic and political course, its goals and means; they have formulated approaches to the definition of parameters and indicators for assessing IP.

The diversity of reasons for today's need to improve industrial policy is revealed in the works [1, 2], the authors of which showed that, in contrast to the last century, nowadays the need for IP is caused not only by problems of imperfect economic structure and its low innovation activity, but also by other reasons, including the need to ensure strategic independence of national economies; boosting their digital transformation; ensuring the balance of development levels of economic regions; and responding adequately to global financial crises, pandemics, environmental and other challenges.

Their growing diversity has given rise to an increasing number of new interpretations of IP, its directions, and approaches to its measurement. If previously industrial policy was reduced to a set of measures to regulate markets, create conditions for growth and improve competitiveness of the economy, nowadays its functionality also includes changing the industrial structure by strengthening the sectors with high added value, supporting new and modernizing traditional industries, mobilizing the potential of network forms of economic organization based on digital technology, etc. [3, 4].

The growing number of IP goals and objectives is accompanied by the clarification of other components of the public administration system that allow to realize the purpose of the course and ensure its effectiveness [5], which include basic (or "framework") conditions necessary for successful implementation

of the course, as well as measures to achieve the set goals.

The former relate to labour and capital markets, national legal institutions, and the main actors of IP [6, 7]. The latter concern fiscal and financial instruments (state subsidies, guarantees, etc.), as well as actions of organizational nature: targeted state support of science, stimulation of development of certain sectors and territories, increasing their investment activity, export, etc. [8, 9].

In addition to the mutual correspondence of objectives, basic conditions and measures for effective IP, the modern literature notes the importance of taking into account the following circumstances:

- a clear definition of the IP object — e.g., a highly productive sector, a certain type of business, specific industry(s), etc;
- consistency in the design and implementation of IP of a certain type (horizontal, targeted, combined; long- and/or short-term, etc.)
- the balance between the IP measures;
- changes in the situation not only of the direct recipients of IP (its object), but also of other entities of the space (region, sector, etc.) in which these recipients act
- influence of forces unrelated to the change of state/condition of the IP object;
- correlation of IP effects at different aggregate levels (macro-, meso- and microlevels)
- information support of IP, including from different sources: targeted (e.g., reports on the implementation of planned activities) and other (corporate reporting, legal databases, statistical directories, etc.) [10–13].

These aspects, which are sometimes combined by the term "management factor", significantly complement the range of traditional approaches to assessing the effectiveness of industrial policy.

Its qualitative parameters are usually reduced to changes in the economic structure (structural approach) or conditions (quality) of life and reproduction (comprehensive approach)[2] [14], while the quantitative ones are associated with sets of financial and economic indicators (indices of industrial production and/or its manufacturing sector, labor productivity, investment activity, the number of investment projects, jobs created, etc.) or add to them the indicators of stability, environmental friendliness, etc.

Despite the differences in the composition of the applied sets of metric indicators, the same methodologies are used for their calculation. The most common are fixing a set of indicators and their target values for comparison with the actual results; determining deviations of indicator values from the average and ranking them; approving special calculation methodologies, etc. [15, 16].

The list of the above-mentioned parameters and indicators of IP is considerably extended to take into account the management factor. On the one hand, this opens up new opportunities to improve course efficiency, but on the other hand, it makes it much more difficult to work with them due to the increased volume of information to be processed.

Opportunities to avoid such difficulties are now associated with the use of digital technologies capable of processing large amounts of data and simplifying calculations according to different methodologies. It can also make these processes cheaper and more accurate. However, experts recognise that there is no clear model for the implementation of such digital capabilities, either in theory or in practice [17].

In line with and expanding upon the issues raised, IPs are studied in relation to the Arctic, most commonly in the Arctic states and

[2] UNIDO. Industrial Development Report 2020. URL: https://www.unido.org/sites/default/files/files/2019–11/UNIDO_IDR 2020-MainReport_overview.pdf

the Arctic Council observer states.[3] In most of these, however, the focus has been on the research, infrastructure, environment, and cultural/civilizational aspects of the course [18]. Russia, on the other hand, has increasingly focused on the socioeconomic aspects of IPs [19, 20].

Given the enormous production potential of the AZRF, domestic researchers address various aspects of PP in the region to develop new types of industries and ecosystems; launch large-scale projects with state participation, including in the context of a changing external environment (sanctions, etc.); mobilize the capabilities of advanced technologies, including digital, to improve sustainability and economic efficiency [21, 22].

The theoretical background provided the basis for a study of industrial policy in the sector of the same name in order to identify opportunities to improve its effectiveness.

RESEARCH METHOD AND INFORMATION SOURCES

The study of the course was based on the integrated use of general scientific methods: analysis and synthesis, logical method, comparative, content analysis, etc.

Given the limited primary sources of data available on the implementation of the course, much attention was paid to secondary sources of information: scientific literature, media publications, as well as normative documents on the issues of socio-economic policy of the Russian Federation in the Arctic. The latter indicated the extensive development of the IP at the federal level, which made it possible to rely on them as a baseline for evaluating the course and identifying opportunities for improving its effectiveness.

[3] List of the Arctic Council Observer Countries. URL: https://www.arctic-council.org/ru/about/observers/

RESULTS AND DISCUSSION

1. Analysis of documents regulating socio-economic policy in the AZRF: Decree of the President of the Russian Federation from 05.03.2020 No. 164 "On the Fundamentals of State Policy of the Russian Federation in the Arctic for the period up to 2035" (hereinafter referred to as the Fundamentals of Arctic Policy); Decree of the President of the Russian Federation from 26.10.2020 No. 645 "On the Development Strategy of the Arctic Zone of the Russian Federation and ensuring national security for the period up to 2035" (hereinafter referred to as the Strategy of the Arctic Zone Development); Resolution of the Government of the Russian Federation from 30.03.2021 No. 484 "On Approving the State Program of the Russian Federation "Social and Economic Development of the Arctic Zone of the Russian Federation" (hereinafter referred to as the AZRF State Programme); the Russian Federation Government Regulation No. 996-r of 15.04.2021 on the "Single Action Plan for the Implementation of the Principles of State Policy of the Russian Federation in the Arctic until 2035 and the Arctic Zone Development Strategy of the Russian Federation and National Security until 2035" (hereinafter referred to as the Single Plan) — has allowed to determine the main goals, tasks and objectives,[4] conditions and measures of IP in the region, whose mutual correspondence provides the principal possibility to conduct an effective course.[5]

[4] As the terms aims and objectives often have similar contents in official documents, and given the relative nature of the differences between them, the authors have also used them synonymously in the following.

[5] Presidential Decree No. 164 of 05.03.2020 'On the Fundamentals of State Policy of the Russian Federation in the Arctic until 2035'. URL: http://www.kremlin.ru/acts/bank/45255, Decree of the President of the Russian Federation of 26.10.2020 No. 645 "On the Strategy for Development of the Arctic Zone of the Russian Federation and Ensuring National Security for the Period to 2035". URL: https://base.garant.ru/74810556/; Decree of the Government of the Russian Federation No. 484 of 30.03.2021 "On Approval of the State

Its main objectives included:

• Ensuring sustainable growth and development of industry, creating attractive conditions for entrepreneurship and increasing its investment, and strengthening state-business cooperation (while retaining state control over joint strategic projects);

• improving the integrated development of the sector, including through the improvement of its infrastructural and personnel support.

These general industry-wide development objectives were complemented by sector-specific objectives.

In the extractive industries related to hydrocarbon raw materials and solid minerals, it was envisaged to switch over to better development of deposits: to increase prospecting work, increase oil and gas extraction ratios, oil refining depth, etc.

In order to boost the sectors involved in the development of aquatic biological resources, tasks were set to create conditions to improve their efficiency and increase the production of high value-added products.

To improve the timber industry, it was planned to reorient them towards advanced processing of timber, improve the industry's infrastructure and intensify reforestation.

For the spatial development of the industry, it was planned to develop the Arctic shelf and intensify cooperation between the AZRF and other regions of Russia.

A number of tasks concerned infrastructure support for the sector: the development of transport communications, telecommunications, science and technology, environment, security, etc.

The opportunities to implement all of the above-mentioned strategies envisaged the basic conditions of the IP[6]:

• under the overall direction of the President of the Russian Federation, the activities of the federal executive authorities and the subjects of the Russian Federation in implementing and monitoring the regional course of IP were coordinated by the State Commission for Arctic Development;

• Institutionally, industrial development was provided by the legal sphere, the main parts of the management system; as well as information support, including statistical and analytical support;

• The financial sources of the IP were provided by the budgetary system of the Russian Federation, including the State Program of the AZRF, as well as by extra-budgetary sources.

The objectives and basic conditions of IP corresponded to its measures, embedded in the general set of instruments of the entire Arctic policy. Based on its analysis, measures for industrial development were highlighted. Grouped according to the main areas of use, they are presented in the *Table 1* below.

The data show that the envisaged industrial policy measures met its objectives and, in this respect, provided a fundamental opportunity for the effective implementation of the policy.

2. The identification of the main parameters and metrics of IP, taking into account the management factor, made it possible to significantly supplement and adjust the indicators of effectiveness of the Arctic policy from the official documents, to identify new opportu-

Programme of the Russian Federation for the Socio-Economic Development of the Arctic Zone of the Russian Federation". URL: https://base.garant.ru/400534977/; Decree of the Government of the Russian Federation No. 996-r of 15.04.2021 "Unified Action Plan for the Implementation of the Principles of State Policy of the Russian Federation in the Arctic until 2035 and the Strategy for Development of the Arctic Zone of the Russian Federation and National Security until 2035". URL: https://docs.cntd.ru/document/603336627.

[6] Presidential Decree No. 164 of 05.03.2020 'On the Fundamentals of State Policy of the Russian Federation in the Arctic until 2035'. URL: http://www.kremlin.ru/acts/bank/45255

Table 1

The main groups of measures to implement the tasks of the IP in the Arctic Zone of the Russian Federation

Directions	The main content of the measures
THE INDUSTRIAL SECTOR AS A WHOLE	
GROWTH AND DEVELOPMENT	Introduction of a special economic regime in the AZRF; adaptation of the region's sector and infrastructure to climate change; development of crisis management as part of a unified state system for disaster management; and ensuring mutually beneficial international cooperation in the region
INNOVATION AND SUSTAINABILITY OF ACTIVITIES	State support for the development and introduction of new functional and structural materials, technologies critical for Arctic development (including minimisation of emissions and/or discharges of pollutants); development of a unified state environmental monitoring system [based on modern information and communication technologies (ICT) and communication systems]; state support for the waste management industry in the AZRF; ensuring radiation safety of industrial facilities related to nuclear technologies; the use of the results of the Implementation Agreement on Strengthening Arctic International Scientific Cooperation for these purposes
RESOURCE SUPPORT	Providing investors with state support for their investments in industry and its infrastructure; simplifying the procedure for granting land plots to citizens for industrial production; encouraging the use of domestic industrial products in new projects; developing general principles for investment projects with foreign capital in the AZRF; attracting foreign investors to participate in industrial projects in the region
PRODUCTION AND TRANSPORTATION SUPPORT	Integration of transport and logistics services in the waters of the Northern Sea Route (NSR) based on a digital platform for multimodal transportation; development and implementation of engineering and technical solutions for sustainable infrastructure operation under climate change; construction and reconstruction of local roads; creation of a trans-Arctic underwater fiber-optic trunk line with access to major ports and settlements in the AZRF; deployment of a high-elliptic space system to provide high-resolution hydrometeorological data to the polar region
HUMAN RESOURCES AND SOCIAL INFRASTRUCTURE	Development of a network of professional educational organisations (including those based on WorldSkills standards)[a] together with large and medium-sized enterprises; bringing the system of basic professional educational programmes and admission to budgetary places of educational organisations of the AZRF in line with the forecast demand for qualified personnel; supporting development programmes for higher education organisations and their integration with industrial enterprises; developing and implementing, in collaboration with foreign organisations, professional educational programmes for the development and exploitation of the Arctic
	Definition of a system of social guarantees for citizens working in industry in the AZRF; establishment of a system of state support for the delivery of vital goods to remote settlements linked to industry; development of schemes for the optimal location of the social infrastructure of industry and its modernisation; state support for the cultural development of employees of industrial enterprises
CROSS-SECTORAL LINKAGES	Engaging industrial enterprises in the development of ports and port points on the NSR (Northern Sea Route) and other water areas for increased navigation in the AZRF, the development and construction (reconstruction) of airport complexes, border crossing points; the Russian research fleet; the capacity of Arctic complex emergency rescue centres and their logistical support and arrangements

Table 1 (continued)

Directions	The main content of the measures
INDIVIDUAL INDUSTRIAL SECTORS	
EXTRACTIVE INDUSTRIES RELATED TO HYDROCARBONS AND SOLID MINERALS	Development and implementation of a programme for geological exploration of the AZRF, state support for the creation and development of technologies for oil and gas field development, LNG and other fuel production; measures to prevent negative environmental impacts of industrial development of natural resources; development by the state of a unified system for prevention and response to emergencies, including oil and oil product spills in transport corridors; measures to expand the use of LNG for transport (sea and river) and for energy supply to populated areas
ENERGY, COMMUNICATIONS INDUSTRY	Development and implementation of a state support mechanism for projects to improve the efficiency of electricity generation based on LNG, renewable energy, and local fuels in isolated and hard-to-reach areas; provision of mobile energy sources and means of communication to small peoples in areas of their traditional economic activities and residence; ensuring rational use of associated oil gas to minimise its flaring and combustion; prevention of crime at fuel and energy enterprises
FOOD PROCESSING INDUSTRY	State support for the establishment/upgrading of fish processing complexes
TIMBER INDUSTRY	Developing a mechanism of state support for the development of deep processing of forest resources
SPATIAL DISTRIBUTION OF INDUSTRY	
CONTINENTAL SHELF DEVELOPMENT	Preparation of materials for the justification of the outer limit of the continental shelf; creation and development of a new model for the implementation of economic projects on the continental shelf with the participation of private investors
INTERREGIONAL COMMUNICATION	Construction of universal nuclear-powered icebreakers and other types of vessels for use in the Arctic, including the development and approval of a programme to build vessels for transport between sea and river ports in the AZRF; support for the construction of Arctic-class cruise ships in Russia; improvement of subsidy mechanisms for long-distance, inter-regional and local (intra-regional) air transport, including to and from the Arctic

Source: compiled by the authors based on the Development Strategy of the Arctic Zone of the Russian Federation. URL: https://www.garant.ru/products/ipo/prime/doc/74710556/

Note: [a] — WorldSkills — an international social movement with the mission of creating conditions for people striving for professional self-realization. URL: http://worldskillsrussia.org/worldskills/.

nities for improving the effectiveness of the course.

The identification of qualitative parameters of IP, which included the well-being and quality of life of those employed in industry; the competitiveness of the latter, its innovation, sustainable growth, integration into the national economy, infrastructure provision; spatial (including cross-border) development, was based on the analysis of the course objectives.

In determining quantitative parameters and indicators, the factors of effectiveness of socio-economic policy on the development of the AZRF, given in the Arctic Policy Framework[7] were taken into account. Grouped according to the main objects of IP, they are presented in the *Table 2* below.

[7] Decree of the President of the Russian Federation of March 5, 2020 No. 164 "On the Fundamentals of the State Policy of the Russian Federation in the Arctic for the period up to 2035". URL: http://www.kremlin.ru/acts/bank/45255

Table 2

The key indicators of the effectiveness of the Arctic policy of the Russian Federation and the corresponding quantitative characteristics

The key performance indicators (KPI) of the Arctic policy of the RF	Indicators of quantitative parameters of the IP in AZRF highlighted on the basis of the KPIs
The regional economy as a whole	**The industry as a whole**
Share of the gross regional product of the AZRF in the total GRP of the constituent entities of the Russian Federation [a]	The share of shipped goods of own production, work performed, and services performed by the industrial enterprises of the region on their own in their total volume in all regions of the Russian Federation
The most important sectors of the Russian Arctic economy	**Industries and infrastructure**
Share of oil and natural gas produced in the region in their total national production [b]	The same as in the cell on the left
The volume of cargo transportation in the waters of the NSR — Northern Sea Route (point "o" of the KPI)[c]	Multiplication coefficients of cargo transportation in the NSR to the industrial production of the region and the increase in this production to the volume of goods transported along the NSR
Human resources	**Human resources**
The average salary of those employed in organizations of the Russian Arctic (point "e" of the KPI)[d]	The average salary in the industry of the Russian Arctic
Unemployment rate in the Russian Arctic (point "c" of the KPI)[e]	Unemployment rate in the industrial sector of the Russian Arctic
Socio-economic structure	**Industrial structure**
The share of value added of high-tech and knowledge-intensive industries of the Russian Arctic in the gross regional product (point "i" of the KPI)[f]	The same as in the cell on the left
The share of internal expenses of the Russian Arctic organizations on R&D and technological innovations in the national volumes of the corresponding expenses (point "l" of the KPI)[g]	Share of domestic expenditures of industrial enterprises on R&D and technological innovations in the national volumes of corresponding expenditures
The share of investments in fixed capital for the protection and rational use of natural resources in their national volumes (point "m" of the KPI)[h]	The share of investments in the fixed capital of industrial enterprises for the protection and rational use of natural resources in their national volumes
Share of households with broadband Internet access in their total number in the Russian Arctic (point "f" of the KPI)[i]	The share of industrial facilities of the Russian Arctic using broadband Internet access in their national number
Investments in the economy of the region	**Investments in industry**
The share of the region in terms of investments in fixed capital in the total capital investments of the country (point "j" of the KPI)[j]	The share of investments in the fixed capital of the Arctic industry in the total capital investments of the country's industry
Number of jobs at new enterprises of the Russian Arctic (point "d" of the KPI)[k]	Number of jobs in new industrial enterprises
Coefficient of migration growth of the population of the Russian Arctic (point "b" of the KPI)[l]	Coefficient of migration growth of workers of industrial enterprises of the Russian Arctic

Source: compiled by the authors based on "On the Fundamentals of the State policy of the Russian Federation in the Arctic for the period up to 2035" URL: http://www.kremlin.ru/acts/bank/45255.

Note: [a] — point "h". URL: http://www.kremlin.ru/acts/bank/45255

[b] — Ibid., paragraphs "n" and "o"; [c] — Ibid., paragraph "p"; [d] — Ibid., paragraph "e"; [e] — Ibid., paragraph "c"; [f] — Ibid., point "i"; g — Ibid., paragraph "l"; [h] — Ibid., paragraph "m"; [i] — Ibid., paragraph "f"; [j] — Ibid., paragraph "j"; k — Ibid., item "d"; [l] — point "b".

Analysis of the content of indicators in the right column of *Table* 2 showed that it does not reflect the quantitative aspects of many parameters of the quality of the IP in the Arctic zone — for example, the quality of life, competitiveness, sustainability, etc. Also, the content does not give an idea of the purpose of the IP to change its object and does not take into account the management factor. The elimination of these gaps requires replacing the selected indicators with the corresponding incremental indicators and supplementing them with others that allow a quantitative assessment of the qualitative characteristics and managerial aspects of the course (for example, the ratio of the influence of the state and other socio-economic entities and forces on the change in the objects of the IP; changes in the situation in the region of various industrial sectors in the process of implementing the IP, etc.).

Solving this problem requires large-scale research and development, including the use of digital technologies, as well as organizational efforts to introduce the newly created system into management processes. The possibility of such actions, however, was actually provided for in the documents on the IP: they noted the need to create a unified information-analytical and statistical system for managing the development of the Russian Arctic. Taking into account the approach proposed above in the formation and use of IP performance indicators allows you to control important aspects of the course that were not taken into account otherwise, identify its shortcomings in a timely manner and determine opportunities and ways to improve its effectiveness.

3. Opportunities to ensure and/or improve the effectiveness of IP open up when considering the conditions necessary for an effective change of its stages. The prospects for a successful course may remain unfulfilled even if the above remarks are observed, due to the fact that at certain stages of the strategic management of industry, it did not provide for the formation of qualities sufficient for an adequate (expected) response of enterprises to the impact of the measures of the next stage.

For example, the main objectives of the first of the three stages of the AZRF Development Strategy adopted for the implementation of the IP (2020–2024, 2025–2030 and 2031–2035) concerned the creation of the infrastructure foundations for future industrial development: its regulatory and legal support; improving transport, infrastructure, shipbuilding, and communication systems; modernization of social infrastructure, scientific and personnel support for the needs of industry, etc.

These important and necessary actions, however, did not mean that only thanks to them, the next step in the actions of industrialists would be the active introduction of new technology, innovation, development of opportunities for year-round navigation on the NSR, and increased competitiveness. Therefore, among the parameters and indicators of IP at its individual stages, it was necessary to provide for the readiness of its facilities for the transition to the next stage. For example, at the first stage of strategic development, the readiness of enterprises for the transition to the next one could be evidenced by the formation of their abilities and focus on technological renewal and innovation, activation and change in the way they work with the external environment, the transition to new business models, etc.

The available special management tools made it possible to specify the indicators of the emergence of new qualities in IP objects: maps of cause-and-effect relationships in the work of organizations (causal maps), schemes of decision-making mechanisms, etc.

4. Important prospects for improving the effectiveness of the IP in the Russian Arctic

Table 3

Some characteristics of the priority investment projects with the state participation

Specifications	December, 2021	April, 2022
Number of priority investment projects with state participation	338	460
Total investment	1,1 trillion rub.	1,3 trillion rub.
Share in the total number of projects scheduled for completion by 2030	More than 18%	More than 25%

Source: compiled by the authors based on Meeting on the problems of the Arctic Zone development. URL: http://www.kremlin.ru/events/president/news/68188; [8].

are opened by the presence of a system of its information and analytical support, in the absence of which (or without access to it), information about the course and the state of its object in open sources is not enough to assess the IP in a balanced way and identify opportunities at the system level in order to improve its efficiency.

On the one hand, the materials of meetings, forums and other thematic events indicate an increase in industrial activity in the Arctic, an increase in the number of commercial projects being implemented in it, including with the participation of the state (*Table 3*).

Presented in Table 3 the upward dynamics of investment activity in the Russian Arctic is accompanied by the creation of new jobs in the industrial sector (in the spring of 2022 there were about 30 thousand, and by 2030 this number may become 110 thousand or more), improving the structure of its financing, attracting private investors. The ratio of budgetary and private investments in projects is estimated at a ratio of 1:15, i.e., for every ruble of state resources, merchants invest 15 rubles of their own funds. At the same time, the payback period of budget investments is 4 years. As a result, by 2035, the increase in the gross domestic product of the Russian Arctic is expected to be more than 30 trillion rubles, while in tax revenues — 13 trillion rubles[8]. [8].

The strengthening of project activities is associated with special regimes for supporting entrepreneurship in the region, the most significant of which include the creation of the Arctic zone of the Russian Federation with federal, regional, and municipal tax benefits and administrative preferences for investors, territories of advanced socio-economic development, a special administrative region, the regime "Free port of Vladivostok". Today they are used by companies from almost all industrial sectors represented in the Arctic for the development of new deposits, the creation of processing enterprises and other facilities.

Entrepreneurship is also stimulated by such IP measures as various forums, fairs and other public events. Thus, at the recent XI International Forum "The Arctic: Present and Future", "Norilsk Nickel" and the management company of the Russian Arctic, JSC "Corporation for the Development of the Far East and the Arctic", signed an agreement on cooperation in the implementation of a number of invest-

[8] Materials of the Conference on the Development of the Arctic Zone. 13.04.2022. URL: http://www.kremlin.ru/events/president/news/68188

ment projects in the Krasnoyarsk Territory and the Murmansk Region.[9]

On the other hand, the given data is not enough to unequivocally recognize the effectiveness of the course.

Information on project activity requires additional information about the payback of commercial investments, their profitability, risks, etc., while the assessment of other types of industrial activity requires information about the commodity situation, the structure of markets and costs, the position of different types of business, their dynamics, etc. The absence of these data in in a systematic form does not allow comparing the developed IP with its influence on the actual development of the industry.

Similar problems arise when evaluating course funding. So, without a special analytical commentary, the reasons for the implementation of the AZRF Program at the level of 14.5% in the 1st quarter of 2022 and 1.4% in the 1st quarter of 2021 (according to the open part of the consolidated list with changes) and the program "Development of shipbuilding and equipment for the development of offshore fields", are not clear as they amounted to 5.8 and 39.5%, respectively.[10] And without additional explanations, it is impossible to judge such actions and look for ways to correct the situation.

However, the need for such steps and the need to select an appropriate information and analytical system are persistently indicated by the documents of ongoing meetings and other events on the issues of the Russian Arctic. For example, the materials of the April meeting in the Kremlin on Arctic issues indicate the incomplete use of existing financial instruments to stimulate entrepreneurial activity, insufficient involvement of small and medium-sized businesses in priority investment projects, and other shortcomings of the regional IP.[11] Overcoming them is associated with an appeal to already tested tools in the form of a "Project Finance Factory", granting benefits to companies in the region as residents of the Russian Arctic; financing of Arctic projects from the funds of the National Wealth Fund, compensation to small and medium-sized businesses up to half the interest rate on loans for the supply of goods, works and services in priority areas from the federal budget, etc.

The possibility of using other PP measures to improve its efficiency, such as improving the coordination of various areas of industrial development and the formation of intersectoral complexes on this basis, the targeted improvement of some conditions for the operation of the extractive industries and the industrial infrastructure of the region, is indicated in the materials of the meetings of the State Commission for the Development of the Arctic.[12]

Characteristically, in both cases, the problems associated with the insufficiency of the identified opportunities to achieve the goals set, the expediency of supplementing them with other tools or, on the contrary, reorientation to solve other course tasks, remain unresolved. The need to overcome them once again confirms the importance of an appropriate information and analytical system, which allows not only to develop a course, but also to control its implementation, to identify systemic opportunities to increase its effectiveness. Given the scale and complexity of such an object, it is advisable

[9] Materials of the XI International Forum "Arctic: present and future". URL: http://www.forumarctic.com/conf2021/about/

[10] Accounts Chamber of the Russian Federation. Operative report for the 1st quarter of 2022, p. 49, 53. URL: https://ach.gov.ru/audit/I-quarter-2022

[11] List of instructions following the results of the Meeting on the development of the Arctic zone of the Russian Federation. 22.05.2022. URL: http://www.kremlin.ru/acts/assignments/orders/68462

[12] State Commission for the Development of the Arctic. URL: https://arctic.gov.ru/documents/

to use digital technologies in its development and use. Taking into account the novelty of this process, it makes sense to make its organization the subject of special studies, allowing to more fully determine the possibilities for improving the efficiency of IP in the Russian Arctic..

CONCLUSIONS

The study that was conducted made it possible to fulfill the tasks and achieve the goal of the work.

An analysis of the scientific literature on the issues of IP showed the viability of searching for opportunities to improve the effectiveness of the course in the Russian Arctic on the basis of an analysis of the mutual correspondence of its main elements, taking into account the managerial factor.

The approach to industrial policy in the Arctic Zone as an organic component of the course for the socio-economic development of the region made it possible to use the documents supporting it to determine the main elements of the IP: its goals, measures and basic conditions for implementation; studying them for mutual correspondence showed that, in general, they are consistent with each other and, in principle, make it possible to achieve its goals.

The developed approach to determining the quantitative indicators of the course, taking into account the managerial factor, laid the foundation for clarifying the assessment of the effectiveness of the IP and detailing the directions for finding ways to improve it. An analysis of the individual stages of the IP provided for in the Development Strategy of the Russian Arctic showed that their results do not provide for an assessment of the conditions sufficient for a successful transition from one stage to the next. This is fraught with inefficiency of the entire course and requires consideration of these conditions. To facilitate the solution of this problem, they should be included in a special statistical and information-analytical system for managing the industrial development of the region, provided for in official documents on IP.

There is currently no access to its data. This does not allow us to evaluate it and use it to comprehensively identify opportunities to improve the effectiveness of the current IP. Meanwhile, the analysis of information about the AZRF IPs from sources that are not related to the system mentioned above indicates the presence of such opportunities. This confirms the importance of this system and the relevance of access to working with it to find ways to optimize the IP.

The authors have developed and applied original approaches to address the following issues:

- a way to determine the IP in the Russian Arctic as a system;
- theoretical substantiation of the fundamental possibility of effective implementation of the IP;
- development of quantitative indicators of the effectiveness of IP, taking into account the management factor;
- taking into account continuity when changing the stages of strategic management;
- the need for information support of the course in a system that allows you to constantly monitor the effectiveness of the IP and comprehensively identify opportunities to improve it.

Many of the conclusions and recommendations made during the study can be applied in practice. This concerns the formation of a system of qualitative and quantitative indicators for assessing the effectiveness of the IP in general and at individual stages of its implementation in the information and analytical management system, expanding access to its data to determine the possibilities for improving the effectiveness of the course and ways to implement them.

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ABOUT THE AUTHORS

Eugenia L. Moreva — Cand. Sci. (Econ.), Associate Professor, Deputy Director of the Institute for Financial and Industrial Policy, Financial University, Moscow, Russia
https://orcid.org/0000-0001-6355-7808
ELMoreva@fa.ru

Ludmila V. Obolenskaya — Cand. Sci. (Tech.), Leader research associate of the Institute for Financial and Industrial Policy, Financial University, Moscow, Russia
https://orcid.org/0000-0002-1016-9171
LVObolenskaya@fa.ru

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