

## APPROACHES AND INSTRUMENTS OF STATE SUPPORT MEASURES FOR MARITIME ACTIVITIES

### ABORDAGENS E INSTRUMENTOS DAS MEDIDAS DE APOIO ESTATAL ÀS ATIVIDADES MARÍTIMAS

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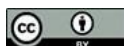
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#### Abstract

Introduction. Maritime economic activity is important for states with long coastlines. State support enables participants in maritime activities to maintain strong competitive positions. Purpose. To develop proposals for improving state support instruments in order to increase the efficiency of maritime activities. Methodology and Methods. The application of a state-centered approach makes it possible to take into account priority national interests in maritime activities. Based on content analysis of international and Russian legislation and a comparative analysis of foreign practice, the possibility of applying elements of foreign practice to the development and regulation of maritime activities is examined. Results. It was found that “chronic” and systemic barriers limiting effectiveness still remain. It was determined that the emergence of new technologies and the transition to an import-substitution policy in shipbuilding have not received sufficient up-to-date regulatory support. The activities of governing bodies aimed at improving support instruments, both in sectoral and functional aspects, are argued for and substantiated. Conclusions. The development of

#### Resumo

*Introdução. A atividade econômica marítima é importante para os países com extensas linhas costeiras. O apoio estatal permite que os participantes das atividades marítimas mantenham posições competitivas sólidas. Objetivo. Desenvolver propostas para melhorar os instrumentos de apoio estatal, a fim de aumentar a eficiência das atividades marítimas. Metodologia e métodos. A aplicação de uma abordagem centrada no Estado permite levar em consideração os interesses nacionais prioritários nas atividades marítimas. Com base na análise de conteúdo da legislação internacional e russa e em uma análise comparativa das práticas estrangeiras, examina-se a possibilidade de aplicar elementos das práticas estrangeiras ao desenvolvimento e à regulamentação das atividades marítimas. Resultados. Verificou-se que ainda persistem barreiras “crônicas” e sistêmicas que limitam a eficácia. Determinou-se que o surgimento de novas tecnologias e a transição para uma política de substituição de importações na construção naval não receberam apoio regulatório atualizado suficiente. As atividades dos órgãos governamentais voltadas para a*



existing instruments and the adjustment of approaches to granting state support measures will increase the effectiveness of national maritime policy.

**Keywords:** Maritime Policy. State Support. Instruments. Measures. Efficiency.

*melhoria dos instrumentos de apoio, tanto nos aspectos setoriais quanto funcionais, são defendidas e fundamentadas. Conclusões. O desenvolvimento dos instrumentos existentes e o ajuste das abordagens para a concessão de medidas de apoio estatal aumentarão a eficácia da política marítima nacional.*

**Palavras-chave:** Política Marítima. Apoio Estatal. Instrumentos. Medidas. Eficiência.

## 1 INTRODUCTION

Maritime economic activity is an important component of the economies of both maritime powers and states without sea borders. The aspiration to achieve the UN Sustainable Development Goals, including the conservation of marine systems (No. 14), responsible consumption and production (No. 12), and others, as well as the desire to secure strong competitive positions, justify the need for state participation in regulating both international and national maritime policies. At present, in the world and in the Russian Federation, close attention is being paid to issues of support for maritime activities, which is determined by their role in geopolitical, transport, logistics, and other aspects. The effective implementation of maritime activities is possible only on the basis of the integrated development and improvement of the supporting activities and enabling conditions that include such areas as shipbuilding, staffing, education and upbringing, security, protection and preservation of the marine environment, information support, international legal support, and international cooperation.

## 2 LITERATURE REVIEW

State participation in the regulation of maritime activities is generally considered in the contemporary literature within a broad range.

Issues related to the formation and implementation of national maritime policy and its components remain constantly on the research agenda of both foreign and domestic authors. The experience of the European Community in shaping policy in the field of maritime transport is examined in works [1]. Contemporary legal regulation in

EU countries with regard to the maritime agenda is discussed in publications by Kolesnikova M. [2,3]. Regional aspects of maritime activities in Arctic territories, taking into account national and environmental interests, are presented in works [4,5,6].

The identification of the competitiveness of civilian shipbuilding as a key factor in the growth of the national economy of a maritime power substantiates the need to specify the legal regulation of shipbuilding issues: the quality of the functioning and development of the water transport infrastructure of the national economy, the sustainability of transport-production foreign economic ties, the profitability of foreign trade, the economic and food security of regions, the development of Arctic natural resources, and the maintenance of Russia's economic advantages and leadership on the Northern Sea Route all depend on the effective performance of the shipbuilding industry [7].

According to the author in [8], the development of a single document would ensure the implementation of an integrated approach to maritime activities and their differentiation into functional and regional areas of national maritime policy, taking into account their priority depending on socio-economic and geopolitical conditions.

Functional aspects are reflected in the absence of modern project practices meeting customer requirements and in the low level of localization of ship equipment production [9]. The authors identify both technological and financial causes.

Measures of administrative and economic influence on production in shipbuilding and the possibilities for their improvement, taking into account the objectives of economic development based on the study of foreign experience, are reflected in [10].

Issues of methodological format are also seen as relevant: the correspondence between the time frames of state support instruments is considered in [11]. Organizational features in approaches to maritime spatial planning (MSP) in international practice indicate that the possibility of creating two separate planning systems, one for land space and one for maritime space, is the dominant trend in EU countries [12]. In [13], the necessity of and examples of state information systems that make it possible to improve the efficiency of maritime activities are substantiated.

Staffing, education, and upbringing constitute the sphere of human capital formation. The bifurcation of the world economy determines the requirements for personnel training for maritime economic activity both from the standpoint of

competencies, new STEM professions, and the use of aggregator platforms for the digital economy [14], and from the standpoint of the level of implementation. The need for innovation-based training for maritime activities is identified in [15], while the development of a system for training senior management personnel for maritime transport and maritime economic activity on the basis of the Russian University of Transport and state maritime universities is substantiated in publications [16]. The organization of additional sector-specific education for children in Russia is characterized by a focus on the quasi-professionalization of adolescent activity and early professional self-determination [17], whereas in foreign practice, specialized training is regarded as auxiliary and oriented toward the development of life skills [18,19,20].

### 3 METHODOLOGY AND METHODS

The level of spatial complexity and interactions in maritime activities, whether explicit or latent, requires the development of a concept that, despite the existing conceptual and categorical apparatus of ocean sciences as well as numerous theoretical developments in economics, is far from simple and constitutes a very special scientific problem of a fundamental nature [21]. In the literature, the study of maritime activity is considered within the framework of three approaches: natural-science, ecological-geographical, and state-centered. The priority of the specific features of the natural environment and marine resources as the basis of the first approach is illustrated by the provisions of the “dilution theory,” the concept of rational use of fish resources [22], the concept of the “optimal catch” [23], international management of marine living resources [24], and the concept of rational use of marine biological resources [30]. The ecosystem-based nature and integration of environmental management are substantiated in the concepts of Large Marine Ecosystems [25] and integrated coastal zone management [26], formulated by representatives of the ecological-geographical approach. Within the framework of the state-centered approach, the consideration of maritime economic management reflects the interests of the state rather than the aspirations of agencies, regions, or economic entities [27].

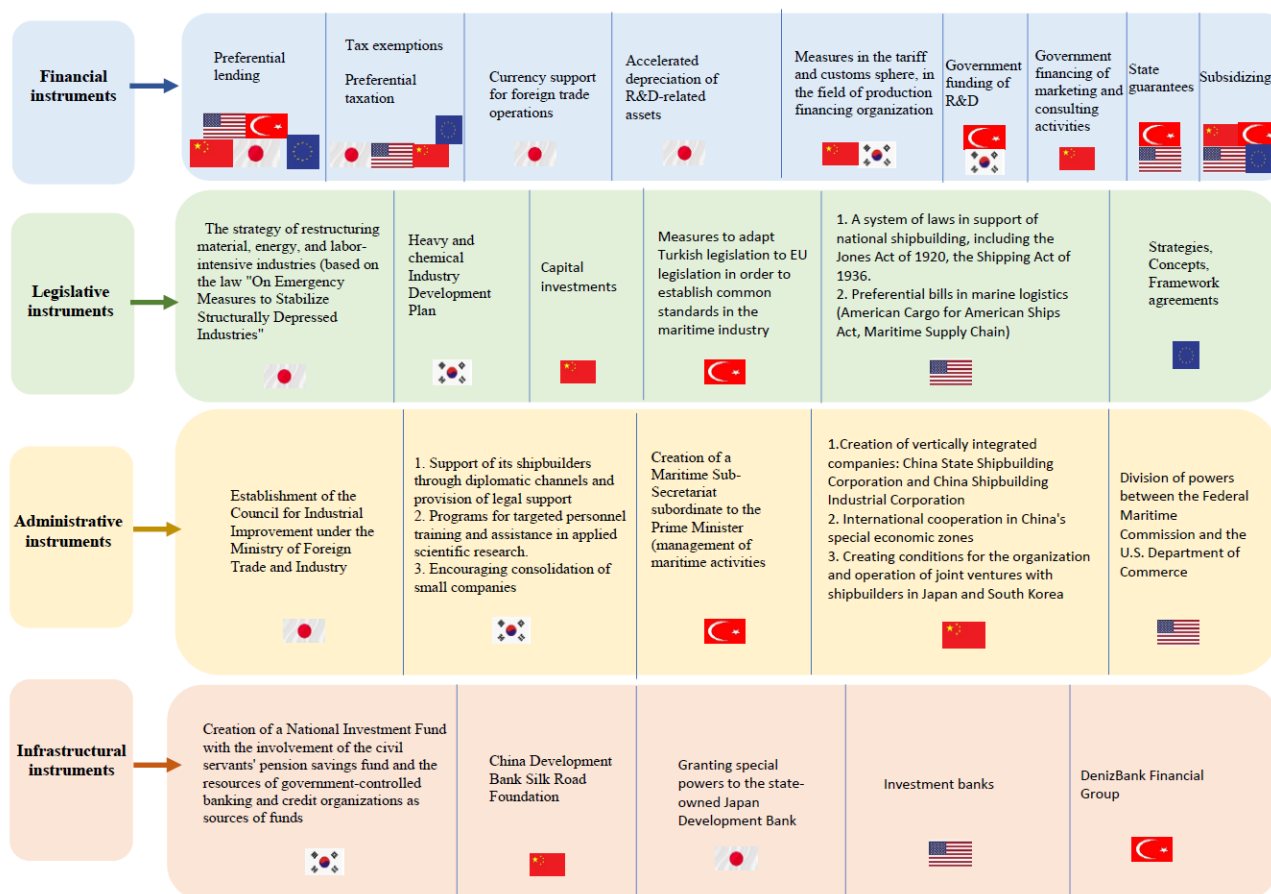
The purpose of the article is to determine directions for improving national maritime policy on the basis of applying effective elements of international practices and improving the instruments and institutional foundations of the state support mechanism.

The results of the content analysis of national and foreign regulatory legal acts governing maritime activities substantiate the validity of the conclusions and proposals. The materials of the article are based on open data from official authorities, the Federal State Statistics Service, scholarly works on the topic, and materials from specialized periodicals. Comparative analysis techniques served as the basis for identifying positive elements of foreign practices.

#### **4 FOREIGN PRACTICE OF REGULATING MARITIME ACTIVITIES**

The individual characteristics of the activities of maritime powers predetermine the diversity of state support instruments (Fig. 1).

Financial measures traditionally include instruments such as concessional lending, tax preferences, state co-financing, and so forth. International practice offers examples of support not only for shipbuilding itself but also for related industries. In Japan, the need to develop metallurgy, machine building, instrument engineering, and other industries was regarded as a fundamental condition for ensuring technological independence and national sovereignty in the sphere of maritime activities. The implementation of state support in South Korea, including the allocation of \$544 million for the country's shipbuilding industry through 2028, ensures the maximum workload of shipyards. The funds will be spent on the development of the design and construction of vessels using alternative fuels, digitalization, and addressing the shortage of labor [31].

**Figure 1***Examples of state support measures in international practice*

In some countries, public-private partnership models are actively implemented. In Denmark, ShippingLab was established in 2019 to develop technologies and technical solutions for stakeholders in Blue Denmark. More than 30 partners participate in the project, including companies, universities, schools, government-approved research and technology organizations, public authorities, and associations. ShippingLab is supported by Innovation Fund Denmark, the Danish Maritime Fund, the Orienta Foundation, and Lauritzen Fonden. The project partners also provide self-financing [32].

Ensuring competitiveness, as one of the tasks of states engaged in maritime activities, is achieved through equal financial conditions. At the interstate level, the *OECD Agreement on Export Credits for Ships* defines uniform shipbuilding credit terms for its participants:

- the credit for ship construction must not exceed 80% of the ship's price;

- the maximum credit term is 8.5 years from delivery of the vessel to the customer (10 years for gas carriers);
- payments must be made regularly at intervals of no more than one year;
- the minimum interest rate for a loan with a government guarantee is 8%, including guarantee-related interest payments (usually 0.5%);
- the amount of government subsidies must not exceed 9% of the ship's value [10].

Countries that are not members of the OECD do not seek to follow these recommendations and instead pursue protectionist policies.

The block of legislative regulation measures includes the development and implementation of legal norms at different levels. The formation of EU maritime policy has a conceptual foundation in the *Framework Directive on the European Marine Strategy*, which defines the направления of action for participating countries. EU countries are implementing a “blue economy” policy. This includes many sectors of the economy, such as fisheries and aquaculture, coastal tourism, shipping, ports, and offshore renewable energy [33]. The European Union is consistently increasing its participation in shaping the global maritime agenda and presents itself as a leading international actor setting the main trends in the development of marine resource use [28]. According to foreign researchers, the development of the European fleet over the past 30 years has taken place within the framework of protectionist policy. In almost all EU countries, a number of state support instruments are used to develop or at least protect national fleets, such as assistance in the training and employment of seafarers, support for the maritime cluster, the introduction of unilateral support measures such as direct and indirect subsidies, and discriminatory practices. This has led to the emergence of a range of measures distorting competition between the national registries of EU member states [29]. Characteristic features have included the strict separation of military and civilian sector enterprises, as well as the combination of private and public capital, that is, public-private partnership [10].

In the 2021 EU Report on the “blue economy,” the European Commission, within a new approach, formulated the coherence of maritime activities with the objectives of the European Green Deal across blue economy sectors. Its effectiveness is reflected in the materials of the *EU Blue Economy Report 2025*: at present, the EU blue economy is on an upward trajectory, having generally recovered from the COVID-19 crisis. In 2022, it

directly employed 4.82 million people, generated a turnover of almost EUR 890 billion, and accounted for EUR 250.7 billion in gross value added (GVA). Estimates show that EU blue economy sectors continued to grow in 2023, with EU GVA increasing to EUR 263 billion and employment reaching 4.88 million people [34].

The OECD Committee has established expert assessments of support measures provided by governments to the shipbuilding sector as mandatory reports for participating countries. The condition and problems of the shipbuilding industry in individual EU countries, according to *Reviews of the Shipbuilding Economy*, allow the conclusion that these measures are insufficient and imperfect.

In the United States, the main emphasis is placed on legislative support measures. The *SHIPS for America Act*, currently under consideration in the U.S. Congress, consists of several bills: the *Justice for Victims of Foreign Vessel Accidents Act*, the *Revitalizing the U.S.-Flag International Fleet Act*, the *Improving Shipbuilding Finance Act*, the *Energizing American Shipbuilding Act of 2023*, and the *Ship Fuel Tax Parity Act*. The law proposes the creation of a financial incentive program for shipbuilding that will support national shipbuilding and ship repair, with plans to transfer the carriage of all government-financed cargo to the U.S.-flag fleet. It is also expected that from 2029 part of imports from China will be transported on vessels registered in the United States [35].

The group of administrative support measures includes institutional and organizational measures. In the architecture of public administration of maritime activities, all countries have agencies overseeing the maritime sector, both broad-based and specialized. The institutional structure of public administration in maritime activities is formed on the basis of two approaches:

- a) the creation of specialized structures (for example, the Ministry of the Sea in Portugal); and
- b) the division of competencies in maritime policy among existing structures, with the possibility of establishing interdepartmental bodies (the Netherlands, the United Kingdom, Italy, and others) (Figure 2).

The choice of organizational model is determined by a combination of geopolitical, economic, demographic, cross-border, and other factors.

Administrative resources are implemented through support for the development of modern digital and information tools at the interstate, state, and private levels,

including the introduction of electronic document management, the use of blockchain technologies in South Korea and Norway, the National Digital Freight Exchange (NDFE) platform in India, and the creation of fully autonomous ship systems and technological innovations in Japan. The state also has the power to establish preferential regimes with possible private capital involvement, regulate migration policy, and so forth. In South Korea, migration rules were relaxed to address the shortage of qualified personnel in the shipbuilding sector. In Italy, an obligation was introduced to disclose in reporting data on state support measures received by enterprises engaged in maritime activities.

**Figure 2**

*Ministries involved in the implementation of maritime policy*



Publication is mandatory, subject to penalties, if the total amount received, including from different public organizations, is equal to or exceeds EUR 10,000 [36]. Considerable attention is also paid to the development of maritime spatial planning as a “cross-cutting policy instrument” that eliminates interdepartmental contradictions.

Brazil has a distinctive experience in organizing maritime activities. At the end of the last century, the Brazilian government required national companies, especially those extracting and transporting oil, to build vessels at domestic enterprises: at least 70% of ship construction work or component supply must be carried out by national companies,

alongside the existence of its own legal and financial system of state support, including long-term loans at minimal interest rates, a system of benefits, and other measures.

The success of financial measures is ensured by the existence of corresponding infrastructure. In international practice, there are various approaches, ranging from granting special powers to state banks to creating special financial institutions with non-traditional sources for resource accumulation (Figure 1).

Based on the review, we may agree with the opinion that in countries that have achieved success in civilian shipbuilding, a state protectionist policy is implemented, following the principle that maritime activities based on national resources should be carried out by national companies using maritime equipment and ships produced at national enterprises and shipyards. In crisis conditions, alongside economic methods of stimulating production in the industry, there is a tendency toward direct state management of shipbuilding production in all ship-producing countries [10].

## 5 DISCUSSION

In the Russian Federation, the fundamental strategic document defining state policy in the field of maritime activities is the Maritime Doctrine of the Russian Federation. Support for maritime activities within the framework of legislative measures in the Russian Federation is implemented through a system of documents addressing the regulation of maritime economic activity and covering its main types (Table 1).

**Table 1**

*Regulation of provision of marine activities in Russian legislation*

Type of activity	Document	Regulatory focus
Shipbuilding	National Security Strategy of the Russian Federation	strengthening the leading positions and competitive advantages achieved by the Russian Federation in the shipbuilding industry
Staffing, education, and upbringing	Consolidated Strategy for the Development of the Manufacturing Industry of the Russian Federation until 2024 and for the Period until 2035	development and growth of domestic production of training vessels for maritime and river transport in order to train highly qualified Russian specialists in water transport

		management; construction of a new-generation icebreaker fleet
	Concept for Personnel Training for the Transport Complex until 2035	- systematic modernization of specialized education; - digitalization of educational processes; - creation of an environment for attracting and developing leaders of change in the sector
Safety assurance	Federal Law “On Seaports in the Russian Federation and on Amendments to Certain Legislative Acts of the Russian Federation”	requirements for the infrastructure necessary for the functioning of the Global Maritime Distress and Safety System and for ensuring safety
Safety of navigation	Merchant Shipping Code of the Russian Federation	relations arising from merchant shipping
Поисково-спасательное обеспечение	Federal Law “On Amendments to the Air Code of the Russian Federation” dated 29.06.2015 No. 166-FZ (latest version)	use of aviation in maritime search and rescue operations
	“Rules for Interaction of Federal Executive Authorities, Executive Authorities of the Constituent Entities of the Russian Federation, and Organizations during Maritime Search and Rescue Operations”	interagency interaction
Medical and sanitary support	Orders of the Ministry of Health of the Russian Federation	procedures for medical examinations and assessments
Security of maritime infrastructure facilities	Spatial Development Strategy of the Russian Federation for the Period until 2025	development of main transport infrastructure
Combating maritime piracy and terrorism	Federal Law “On Combating Terrorism”; Federal Law “On Countering Terrorism”	determination of the amount of compensation for damage caused by the seizure of water transport or by the use of water transport

Protection and preservation of the marine environment	Transport Strategy of the Russian Federation until 2030 with a Forecast for the Period until 2035	increasing the level of safety and environmental sustainability of inland water transport; ensuring fleet renewal and tonnage growth
Information support	Strategy for the Development of Maritime Activities of the Russian Federation until 2030	development and use of a unified state information system on the situation in the World Ocean
International legal support and international cooperation	Merchant Shipping Code of the Russian Federation (MSC RF); Federal Law “On the Internal Sea Waters, Territorial Sea, and Contiguous Zone of the Russian Federation”	determination of rights arising from maritime navigation involving foreign citizens and/or legal entities, etc.; definition and establishment of the legal regimes of Russia’s internal and territorial waters

Compiled by the author.

The fundamental programmatic document is the State Program “Development of Shipbuilding and Equipment for Offshore Field Development”, the purpose of which is to increase the competitiveness of Russia’s shipbuilding industry and to meet the needs of the state and business for modern shipbuilding products and equipment for offshore field development [37].

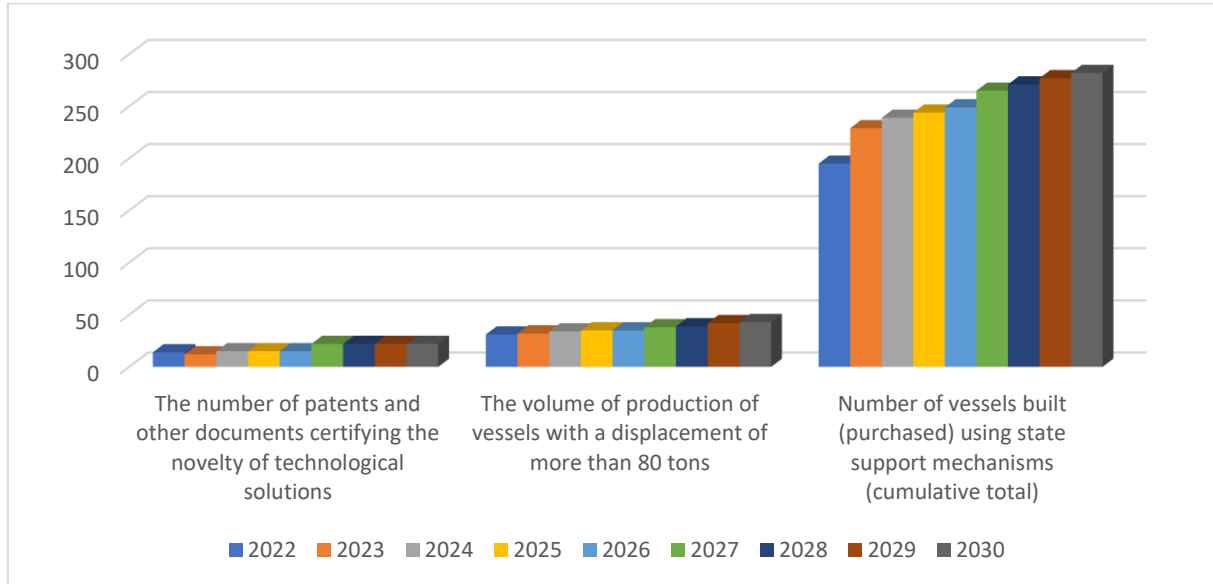
The Program’s activities include measures aimed at:

1. providing a scientific and technological foundation for the creation of shipbuilding products;
2. developing marine equipment technologies and equipment for offshore field development that are in demand in the short term;
3. creating production capacities and the corresponding infrastructure.

As instruments of state support, the Program considers stimulating demand for industry products through mechanisms of subsidizing interest rates and lease payments, developing leasing mechanisms, and implementing programs for the disposal of old vessels. The Program indicators are illustrated in Figures 3 and 4.

**Figure 3**

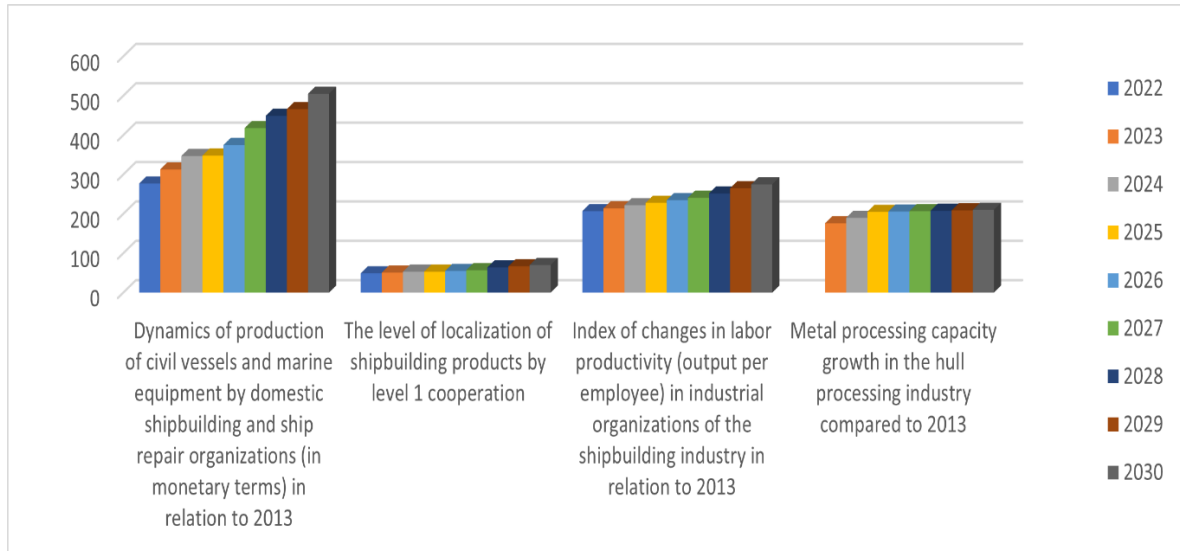
*Indicators of the State Program “Development of Shipbuilding and Equipment for Offshore Field Development” [38]*



The participants in the Program are ministries and agencies, including the Ministry of Industry and Trade of the Russian Federation, the Federal Agency for Maritime and River Transport of the Russian Federation, the Federal Agency for Fisheries of the Russian Federation, the Ministries of Finance, Economic Development, Science and Higher Education, Transport, Education, and the Ministry for the Development of the Far East and the Arctic, among others. The large number of regulatory bodies and the existence of a certain set of competencies for each of them create problems of interagency coordination and the lengthy nature of these processes.

**Figure 4**

*Indicators of the State Program within the framework of the ведомственный project “New Image of the Shipbuilding Industry” and the federal projects “Development of Large-Tonnage Shipbuilding” and “Stimulating Demand for Domestic Shipbuilding Products”*



At present, in maritime economic activity, using the shipbuilding and ship repair industry as an example, a number of problems have emerged which, in our opinion, are largely systemic in nature.

In the financial and investment sphere, there is dependence on borrowed funds, high interest rates, high costs, large-scale purchases of ship component equipment and materials, long construction periods for ships, vessels, and marine equipment, the existence of cash gaps due to zero value-added tax being reimbursed only after vessel construction is completed, and, as a consequence, a low level of profitability.

The application of the “cross-cutting policy instrument” of strategic planning for maritime activities is limited by the weak level of its methodological support in terms of defining limits and volumes, comparability of time horizons, accessibility in relation to the specific nature of sources and cost parameters, and other factors. When planning measures in policy documents, functional and regional financing directions are identified; however, the time horizons for their implementation, departmental affiliation, interagency coordination processes, and other factors complicate the timely assessment of the

effectiveness of their application. We agree with the opinion of L. B. Tarkhanova, who notes that “...the methodology of maritime spatial planning appears to be less studied in Russian science. Despite the absence of a generally recognized concept and a unified approach to the organization of maritime spatial planning, the common goals of this process are the preservation and maintenance of the integrated and dynamic nature of ecosystems through the development and harmonization of sustainable economic activity at sea, taking into account the natural characteristics of the marine environment” [21].

Issues of digitalization in relation to maritime activities, as corresponding to the contemporary global trend, are embedded in legislative acts. The strategic directions in the field of digital transformation of the transport sector of the Russian Federation until 2030, within the framework of the *Autonomous Navigation* project, provide for equipping four facilities with technical means for operating an autonomous port fleet, as well as introducing new models of domestic coastal and shipboard equipment for autonomous navigation in two ports and on two ferries [39]. Since 2023, the National Digital Transport and Logistics Platform of the Russian Federation has been under development, and in 2025 the Unified Platform of Digital Services was launched, among other initiatives.

The characteristics of staffing support, using the shipbuilding segment as an example, highlight the need to expand and strengthen state support measures. Thus, the average annual number of employees engaged in the shipbuilding industry in 2023 amounted to about 165 thousand people, while about 500 thousand more people were employed in related industries. The average age of employees at shipbuilding enterprises is about 45 years. A number of shipbuilding and ship repair yards are experiencing a shortage of qualified workers specializing in shipbuilding, such as welder-assemblers, hull assemblers, marine painters, electrical installers, sandblasters, and pipefitters, as well as highly qualified project managers. Design and engineering bureaus are also experiencing a shortage of highly qualified developers and engineering personnel in the field of civilian ship design [40].

The transport education system includes 20 higher education institutions, including 7 specializing in water transport and one general transport university, the Russian University of Transport [15]. The total number of students exceeds 270 thousand people [41]. The need to comply with the requirements of national legislation, including the Law “On Education,” is supplemented by the requirements of the international system

of training personnel in the maritime sphere, including the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended, and others. The educational mechanism requires substantial adjustment, which is the prerogative of the state. The state support measures in this segment referred to in the Maritime Doctrine have not yet been specified, nor have the bodies responsible for their implementation been identified.

## 6 CONCLUSION

At present, maritime activities are supported by a broad range of state support measures, the practical application of which has both positive aspects and elements requiring adjustment. In the Russian Federation, we consider it logical to pay attention to the possibility of improving such measures as:

- development and adjustment of financial support. The implementation potential of public-private partnership instruments will become more attractive if regulatory authorities take into account proposals coming “from below,” from private business representatives in the maritime sector [42];
- possible adjustment of the architecture of governance institutions (creation of a specialized interdepartmental body, expansion of the powers and competencies of the Maritime Board of the Russian Federation);
- in the legislative sphere, it is necessary to define in a timely manner the legal boundaries and norms regulating the possibility of the functioning of new objects and technologies, including the introduction of unmanned technologies;
- the identification of maritime spatial planning as a separate structural part of planning makes it necessary to develop a mechanism for indicative planning of the strategic development of the sector, including an assessment of the possibilities and limits of market self-regulation, financial-industrial integration, and the system of state support and regulatory measures [4]. In the technical aspect, including the launch of the National Digital Transport and Logistics Platform of the Russian Federation and the possible creation of a special resource, integration with existing state information systems is important;

- improvement of the educational process on the basis of the principle of “from educational outcome,” in cooperation with companies that are leaders of change in the sector.

The experience of foreign maritime powers and domestic practice confirms that, without state support, maritime activities cannot remain competitive.

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### REFERENCES

1. Pallis, A. A. (2017). *EU common policy in the field of maritime transport: The Europeanization of policy in the 1990s*. Routledge.
2. Kolesnikova, M. (2017). Maritime policy of the European Union and its economic aspects. *Contemporary Europe*, (4), 78–86.
3. Kolesnikova, M. (2024). Maritime spatial planning in the EU: Main results. *Contemporary Europe*, (2), 32–44.
4. Bodansky, D., & Pomerance, R. (2021). Sustaining the Arctic in order to sustain the global climate system. *Sustainability*, 13, Article 10622. <https://doi.org/10.3390/su131910622>
5. Biedermann, R. (2021). China’s impact on the European Union’s Arctic policy: Critical junctures, crossovers, and geographic shifts. *Asia Europe Journal*, 19, 467–487. <https://doi.org/10.1007/s10308-021-00605-7>
6. McCauley, D., Pettigrew, K. A., Bennett, M. M., Todd, I., & Wood-Donnelly, C. (2022). Which states will lead a just transition for the Arctic? A DeePeR analysis of global data on Arctic states and formal observer states. *Global Environmental Change*, 73, Article 102480. <https://doi.org/10.1016/j.gloenvcha.2022.102480>

7. Sinitsin, S. A. (2023). Civil shipbuilding in Russia and foreign countries: Status, problems, and prospects for law and economics. *International Public and Private Law*, (1), 44–51.
8. Neupokoev, M. A. (2021). Vectors of development of Russia's maritime activities (on the drafting and revision of regulatory legal acts in the field of maritime activities). *Military Thought*, (12), 6–11.
9. Dudkina, K. A., & Frolova, V. A. (2023). Current problems in implementing state support measures to stimulate the renewal of the fishing fleet. *Proceedings of the Krylov State Research Centre*, 2(404), 165–172.
10. Osipov, V., Zhilina, L., & Astafurova, I. (2016). Practice of state support for shipbuilding in foreign countries. *Izvestiya FEFU. Economics and Management*, (1), 77–86.
11. Malyshev, I. I. (2020). Current issues in the development of state support measures for the shipbuilding industry. *Modern Issues of Innovative Economy*, (7), 100–110.
12. Casimiro, D., & Guerreiro, J. (2019). Trends in maritime spatial planning in Europe: An approach to governance models. *Journal of Environmental Protection*, 10, 1677–1698. <https://doi.org/10.4236/jep.2019.1012100>
13. Baldwin, K., & Mahon, R. (2014). A participatory GIS for marine spatial planning in the Grenadine Islands. *The Electronic Journal of Information Systems in Developing Countries*, 63(7), 1–18. <https://doi.org/10.1002/j.1681-4835.2014.tb00452.x>
14. Horton, G., Finney, H., Fischer, S., Sikora, I., McQuillen, J., Ash, N., & Shakeel, H. (n.d.). *Technological, operational and energy pathways for maritime transport to reduce emissions towards 2050*. <https://www.concawe.eu/wp-content/uploads/Technological-Operational-and-Energy-Pathways-for-Maritime-Transport-to-Reduce-Emissions-Towards-2050.pdf>
15. Fisenko, A. I. (2009). Current state and main tasks of personnel training in higher education institutions of the maritime and river transport profile under conditions of the formation of an innovative economy. *Modern Problems of Science and Education*, (5). <https://science-education.ru/ru/article/view?id=1869>
16. Skrynnik, A. M. (2021). System of training, retraining, and advanced training of senior management personnel in the sphere of public administration of maritime economic activity: A brief historical and legal aspect. *Transport Law and Security*, 4(40), 28–35.
17. Zenkin, M. A. (2021). Sectoral supplementary education for children in the field of maritime activities: Models and practices in Russia and abroad. *Pro Dom*, 6(36), 40–51.

18. Denselow, S., & Noble, J. (2018, May). *How Sea Cadets helps young people today: A summary of the evidence*. Sea Cadets of the United Kingdom. <https://www.sea-adets.org/userfiles/files/SC%20Impact%20Report%20online.pdf>
19. Henstock, M., Barker, K., & Knijnik, J. (2013). 2, 6, heave! Sail training's influence on the development of self-concept and social networks and their impact on engagement with learning and education: A pilot study. *Australian Journal of Outdoor Education*, 17(1), 32–46.
20. Hindle, J. (2014, February). *Survey into the effectiveness of R. Tucker Thompson sail training programmes*. Sail Training International. <https://sailtraininginternational.org/research/survey-effectiveness-r-tucker-thompson-sail-training-programmes/>
21. Tarkhanova, L. B. (2012). Maritime activity as a subject of interdisciplinary research. *Problem Analysis and Public Administration Project Design*, (2), 43–57.
22. Meisner, V. I. (1932). *Fundamentals of fisheries: General introduction*. Snabtekhizdat.
23. Baranov, F. I. (1918). On the question of the biological foundations of fisheries (pp. 84–128). [Publisher not identified].
24. Titova, G. D. (2007). *Bioeconomic problems of fisheries in zones of national jurisdiction*. VVM.
25. Sherman, K., et al. (2005). A global movement toward an ecosystem approach to management of marine resources. *Marine Ecology*, 275–279.
26. Denisov, V. V. (2002). *Ecological and geographical foundations of sustainable environmental management in shelf seas (Ecological geography of the sea)*. Kola Science Centre of the Russian Academy of Sciences.
27. Voitolovsky, G. K. (Ed.). (2010). *Theory and practice of maritime activities: Issue 17. Innovative management technologies*. SOPS.
28. Kolesnikova, M. (2023). Global ambitions of the European Union: The maritime agenda. *International Affairs*, (3). <https://interaffairs.ru/jauthor/material/2800>
29. Bilbao-Ubillos, J., Fernández-Sainz, A., & Payán-Azque, R. (2021). State aid, EU maritime transport policy, and the competitiveness of EU member states' fleets. *European Transport Research Review*, 13, Article 7. <https://doi.org/10.1186/s12544-020-00463-1>
30. United Nations. (1992). *Agenda 21: United Nations Conference on Environment and Development, Rio de Janeiro, June 3–14, 1992*. [https://www.un.org/ru/documents/decl\\_conv/conventions/agenda21.shtml](https://www.un.org/ru/documents/decl_conv/conventions/agenda21.shtml)

31. Mediapaluba. (n.d.). *The government of South Korea allocated \$544 million in state support for shipbuilding until 2028*. <https://paluba.media/news/61685>
32. OECD. (2024). *Peer review of the Danish shipbuilding industry* (OECD Reviews of Shipbuilding Economy). OECD Publishing. <https://doi.org/10.1787/5ec9003b-en>
33. European Commission. (2025). *The Commission publishes the 2025 EU Blue Economy Report*. [https://oceans-and-fisheries.ec.europa.eu/news/commission-publishes-2025-report-eu-blue-economy-2025-05-22\\_en](https://oceans-and-fisheries.ec.europa.eu/news/commission-publishes-2025-report-eu-blue-economy-2025-05-22_en)
34. European Commission. (2025). *The Commission publishes the 2025 EU Blue Economy Report*. [https://oceans-and-fisheries.ec.europa.eu/news/commission-publishes-2025-report-eu-blue-economy-2025-05-22\\_en](https://oceans-and-fisheries.ec.europa.eu/news/commission-publishes-2025-report-eu-blue-economy-2025-05-22_en)
35. Korabel.ru. (n.d.). *The United States is preparing a package of laws on reviving shipbuilding and supporting shipping*. [https://www.korabel.ru/news/comments/ssha\\_gotovyat\\_paket\\_zakonov\\_o\\_vozrozhdenii\\_sudostroeniya\\_i\\_podderzhke\\_sudohodstva.html](https://www.korabel.ru/news/comments/ssha_gotovyat_paket_zakonov_o_vozrozhdenii_sudostroeniya_i_podderzhke_sudohodstva.html)
36. OECD. (2023). *State support to industrial sectors: Consolidated report* (OECD Trade Policy Papers, No. 270). OECD Publishing.
37. Government of the Russian Federation. (2021, October 18). *Resolution No. 1766 on amendments to the State Program of the Russian Federation “Development of shipbuilding and equipment for offshore field development”*. ConsultantPlus. [https://www.consultant.ru/document/cons\\_doc\\_LAW\\_398717/92d969e26a4326c5d02fa79b8f9cf4994ee5633b/](https://www.consultant.ru/document/cons_doc_LAW_398717/92d969e26a4326c5d02fa79b8f9cf4994ee5633b/)
38. Government of the Russian Federation. (2021, October 18). *Resolution No. 1766 on amendments to the State Program of the Russian Federation “Development of shipbuilding and equipment for offshore field development”*. ConsultantPlus. [https://www.consultant.ru/document/cons\\_doc\\_LAW\\_398717/92d969e26a4326c5d02fa79b8f9cf4994ee5633b/](https://www.consultant.ru/document/cons_doc_LAW_398717/92d969e26a4326c5d02fa79b8f9cf4994ee5633b/)
39. Government of the Russian Federation. (2023, November 3). *Order No. 3097-r on approval of the strategic direction in the field of digital transformation of the transport sector of the Russian Federation until 2030*. Garant. <https://www.garant.ru/products/ipo/prime/doc/407851313/>
40. Government of the Russian Federation. (2019, October 28). *Order No. 2553-r: Strategy for the development of the shipbuilding industry for the period until 2036 and for the longer term until 2050* (as amended by Order No. 1181-r of May 12, 2025). ConsultantPlus. [https://www.consultant.ru/document/cons\\_doc\\_LAW\\_336470/856cfad0e3747dc2a99bc71a6b0769d51ac023d8/](https://www.consultant.ru/document/cons_doc_LAW_336470/856cfad0e3747dc2a99bc71a6b0769d51ac023d8/)

41. Government of the Russian Federation. (2021, February 6). *Order No. 255-r on approval of the Concept for Personnel Training for the Transport Complex until 2035*. Garant. <https://www.garant.ru/products/ipo/prime/doc/400210182/>
42. SeaNews. (n.d.). *Measures of economic support for maritime entrepreneurship*. <https://seanews.ru/2022/03/03/ru-mery-jekonomicheskoy-podderzhki-morskogo-predprinimatelstva/>